Usenet Newsgroup Archive: rec.radio.amateur.antenna

2005-06 - 2005-08

These Usenet messages were preserved as a plain-text archive. This PDF was generated by Digital Library of Amateur Radio & Communications from the source text file in 2026.

Date span: 2005-06-01 through 2005-08-31

Source text: rec.radio.amateur.antenna.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 4,929

Message records with no readable body available in the source text: 1

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Re: Marine VHF whip performance on ham 2m ham bands?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 00:14:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429cfee1$1_2@spool9-west.superfeed.net>
Source record: 76167

Ed wrote:
> Let me reiterate, the Motorola white Teflon jacketed RG-58 type coax is
> slightly smaller in diameter than regular RG-58 coax, but not any more
> loss. Plus, the Teflon jacket is very slick, making pulling it in tight
> quarters easier. I'd still suggest you use the original coax as a pull
> line and pull up two of these Teflon jacketed coaxes.

Teflon RG-303 is 0.170" in diameter.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2. Re: swr question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 00:45:31 UTC
From: jgboyles@aol.com
Message-ID: <1117586731.498348.147230@f14g2000cwb.googlegroups.com>
Source record: 76168

Cecil Moore wrote:
> Walter Maxwell wrote:
> > I hope this helps in understanding why the SWR at the input of the 72-ohm line
> > is 1.44:1, and NOT 1:1.
>
> Very good stuff, Walt, as usual. It is possible that Gary
> misunderstood the question. He apparently thought the question
> was: What SWR will a 50 ohm SWR meter indicate and of course,
> a 50 ohm SWR meter will erroneously report an SWR of 1:1 at
> the 50 ohm (current maximum) point on the 72 ohm feedline. If
> we move the 50 ohm SWR meter to the 103.7 ohm (current minimum)
> point on the 72 ohm feedline, it will erroneously report an SWR
> of 2.1:1. But, on the 72 ohm feedline, the SWR is, of course,
> 1.44:1 at both the 50 ohm point and the 103.7 point and at all
> other points up and down the feedline (neglecting losses).
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Yep, it is possible I did, won't be the first time. The orginal
question stated that the swr was somehow measured at the source, how
else could one know it was 1:1. The measurement instrument was not
specified. Assume that it is the average ham with a 50 ohm swr bridge,
an antenna analyzer, and a 50 ohm RLB. If one changes to 1/2 wave 72
ohm cable, using the same measurement instrument you get the same
results.
I understand the mechanics of the actual VSWR on mismatched lines,
but I intrepreted the the question differently I guess. My handy Smith
Chart program reports a 1:1 VSWR, of course it is only at the source,
at 90 degrees it reports 2:1. Wonder what that program uses to
calculate swr?
Gary N4AST
Gary N4AST

3. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 00:47:19 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <861q91loqsj2qscna95dekcvrn4uno1eib@4ax.com>
Source record: 76169

On 31 May 2005 16:30:24 -0700, jgboyles@aol.com wrote:

>
> Hi C.J. With the antennas that close, you could cause damage to the
>cb rig. You should have the cb turned off when transmitting with the
>ham rig, you will overload the front end and get garbage out of the
>speaker.
> Some cb rigs ground the antenna with the rig off, and if yours does
>then you are OK as long as the cb is off. If your rig does not do this
>then you need to add a switch or relay to ground the antenna when the
>cb is off, or you are transmitting with the ham rig. As you stated,
>you will need all the power you can get to have QSOs, but at what point
>does this damage the cb, too many variables?
>Gary N4AST

I'd also add, a 5 watt cb rig, at that close range, could damage the
706. I'd just shut each rig off while the other is transmitting.

By the way, curious, but what does Honda charge for a factory
installed cb setup?

bob
k5qwg

4. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:05:53 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <119q2doqm06s72b@corp.supernews.com>
Source record: 76170

Dear Mr. Richard Clark:
Amen. You understand. Without structured and documented programming one has trash (I know a few other descriptive words that would be applicable). One of my students and I once built an automated EMC measuring system that was under computer control. With the use of documented and structured programming, changing instruments or the DUT was straight forward. Furthermore, since each module was "rung-out" the reliability did not suffer when things were changed. (Just to bring a bit of EMC related subject matter into the discussion.) I am sure that many reading this site know the pain of working on software that is not structured.
Thank you for your effort and skill in making the critical points clear.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

5. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:18:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a32q91peciut9390mhvnciisvo781i7nh0@4ax.com>
Source record: 76171

On Tue, 31 May 2005 16:48:55 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>I will try one more time,

Hi Brett,

Trying "one" more time is not the same as being cogent to the matter,
nor compelling. However, this weak attempt underscores the basic
problem.

In short, what you are doing is a spaghetti excuse, and it aptly
proves the poverty of that method.

73's
Richard Clark, KB7QHC

6. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:27:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ya8ne.247$qD.8584344@news.sisna.com>
Source record: 76181

Richard:

Ahhh, just having a bit of fun--point being, I answer to a boss (used to a wife), sometimes my kids... and that is about it... I no longer have to champion my cause(s) and prove what is obvious to me... as I said, you may have it any way you like... you attempt to divert and sidetrack me to purpose of your own--my attention span has not become quite that short yet... <grin>

Warmest regards,
Jim Jones (free Kool-Aid is being passed out in the yard!)
AKA Brett

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:a32q91peciut9390mhvnciisvo781i7nh0@4ax.com...
> On Tue, 31 May 2005 16:48:55 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>I will try one more time,
>
> Hi Brett,
>
> Trying "one" more time is not the same as being cogent to the matter,
> nor compelling. However, this weak attempt underscores the basic
> problem.
>
> In short, what you are doing is a spaghetti excuse, and it aptly
> proves the poverty of that method.
>
> 73's
> Richard Clark, KB7QHC

7. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:29:51 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ic8ne.248$fV.8734833@news.sisna.com>
Source record: 76176

PASCAL IS PSEUDOCODE!!! <shakes-head-while-walking-away>

Warmest regards,
John

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:119q2doqm06s72b@corp.supernews.com...
> Dear Mr. Richard Clark:
> Amen. You understand. Without structured and documented
> programming
> one has trash (I know a few other descriptive words that would be
> applicable). One of my students and I once built an automated EMC
> measuring
> system that was under computer control. With the use of documented
> and
> structured programming, changing instruments or the DUT was straight
> forward. Furthermore, since each module was "rung-out" the
> reliability did
> not suffer when things were changed. (Just to bring a bit of EMC
> related
> subject matter into the discussion.) I am sure that many reading this
> site
> know the pain of working on software that is not structured.
> Thank you for your effort and skill in making the critical points
> clear.
> 73 Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
>
>

8. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:38:56 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Tk8ne.249$Xq2.8959029@news.sisna.com>
Source record: 76177

My first boss had a boss, the mistake was made in putting him UNDER a real bureaucratic MBA... every friday, no later than monday morning a complete printout of our project had to be on this @$%@#$%'s desk--it was COBOL!!!

I am sure he packed it home, showed it to his neighbors, impressed his wife, children and friends with it--possibly even laid in on the bar while knocking back a few, and the bar patrons were appropriately impressed...

... anyway, he NEVER did figure out, the code was always the same, always years old and from another project... but being about 4 inches thick, it must surely have intimidated him to look...

... another thing he may NEVER have noticed, my boss would put little rhymes and stories in the comments (and constantly change these)--he was a pretty good writer and jokester, and many were funny--perhaps he only asked for the printout so he could read those... <grin>

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:ic8ne.248$fV.8734833@news.sisna.com...
> PASCAL IS PSEUDOCODE!!! <shakes-head-while-walking-away>
>
> Warmest regards,
> John
>
> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:119q2doqm06s72b@corp.supernews.com...
>> Dear Mr. Richard Clark:
>> Amen. You understand. Without structured and documented
>> programming
>> one has trash (I know a few other descriptive words that would be
>> applicable). One of my students and I once built an automated EMC
>> measuring
>> system that was under computer control. With the use of documented
>> and
>> structured programming, changing instruments or the DUT was straight
>> forward. Furthermore, since each module was "rung-out" the
>> reliability did
>> not suffer when things were changed. (Just to bring a bit of EMC
>> related
>> subject matter into the discussion.) I am sure that many reading
>> this site

>> know the pain of working on software that is not structured.
>> Thank you for your effort and skill in making the critical points
>> clear.
>> 73 Mac N8TT
>>
>> --
>> J. Mc Laughlin; Michigan U.S.A.
>> Home: JCM@Power-Net.Net
>>
>>
>
>

9. Re: Homebrew G5RV Somewhat High SWR on 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:49:14 UTC
From: Gary
Message-ID: <nu4q91dcfupu6tj9p7imgc2j5i9ncu0evd@4ax.com>
Source record: 76173

On Tue, 31 May 2005 06:52:31 -0400, KC1DI <elbc2@pivot.net> wrote:

>On Mon, 30 May 2005 23:53:25 -0400, Gary <grynwbry@@@@Yahoo.com> wrote:
>
>> I just constructed a homebrew G5RV, 51' on each leg, 32' 9" for the
>> ladder line matching section.Then there's about 10 turns of RG8X in a
>> 6" dia. coil for a RF choke. It's in an inverted V configuration. It
>> seems to work well enough on 80 and 40 meters, but the SWR on 20
>> meters seems a bit high. It's 3:1 at 14.001 and seems to climb
>> somewhat higher at 14.349. I made the matching section 32' 9" should I
>> trim some off of the matching section, say down to 32' even or leave
>> well enough alone ? I can tune it to 1:1 with my manual tuner, though
>> the best the autotuner can do with it is about 1:6 to 1. I would like
>> to have it resonant on 20 just because that was the band it was
>> designed for IIRC.
>>
>> 73 Gary
>
>Good Morning Gary,
>
>You do not say what type of line you are using for the matching section.
>you have to figure the Volocity Factor of the Line into your caculations..
>So it should mostlikey be a bit shorter than 31 feet or so. Mine her with
>homebrew 525 ohm line is 31 feet 2" , Why 525 ohm line because that was
>about the same a Varney's original So his figures will change depending
>upon the Line. Cebik has a good write up on the G5RV. at
>http://www.cebik.com/wire/g5rv2.html
>Have a good day 73 Dave

Thanks Dave, I'm using 450 ohm ladder line and some triming brought
the SWR down to about 1:8 to 1.

73 Gary.

10. Re: Homebrew G5RV Somewhat High SWR on 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:51:07 UTC
From: Gary
Message-ID: <815q91hr1m4qaos4onhmp4bvonabc9tao8@4ax.com>
Source record: 76172

Thanks for the information. I am using 450 ohm ladder line. Some
trimming as Cecil recommended brought it down to about 1:8 to one.

73 Gary

On Tue, 31 May 2005 11:33:46 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Gary, the G5RV needs a tuner. If you wanted to operate on 14.3, trimming the
>match section to 25.7 feet would give you the best match. However it would
>affect all other bands and by definition no longer be a G5RV.
>
>The above assumes you are using 450 Ohm Ladder line.
>
>"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>news:74nn9154ll1pb5bein97gsv8rkuvdsl8gk@4ax.com...
>> I just constructed a homebrew G5RV, 51' on each leg, 32' 9" for the
>> ladder line matching section.Then there's about 10 turns of RG8X in a
>> 6" dia. coil for a RF choke. It's in an inverted V configuration. It
>> seems to work well enough on 80 and 40 meters, but the SWR on 20
>> meters seems a bit high. It's 3:1 at 14.001 and seems to climb
>> somewhat higher at 14.349. I made the matching section 32' 9" should I
>> trim some off of the matching section, say down to 32' even or leave
>> well enough alone ? I can tune it to 1:1 with my manual tuner, though
>> the best the autotuner can do with it is about 1:6 to 1. I would like
>> to have it resonant on 20 just because that was the band it was
>> designed for IIRC.
>>
>> 73 Gary
>

11. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:55:18 UTC
From: Gary
Message-ID: <r85q91p6htlq1ortcd39vi5plvld0lsdqi@4ax.com>
Source record: 76174

Thanks for the info John. I'm really surprised that assembler is still used. Like I mentioned my experience was limited to an 8 bit 6502 processor and I suspected assembler was probably a goner by now.

73 Gary

On Tue, 31 May 2005 09:01:25 -0700, "John Smith" <assemblywizard@gmail.com> wrote:

>Dead languages are languages like cobol, pascal, fortran and basic--they
>are still used, but out of main stream.
>
>All professional implementation of C allow "inline assembly", you simply
>drop an "asm" directive where you would like to switch to assembly and
>begin keying in assembly code. When done, end your assembly block and
>drop right back to C. Even turbo pascal allows this.... the compiler
>and linker will just eat this up with no problem...
>
>In the Linux world, one compiler and linker is able to virtually take
>any language syntax and use it to compile and link binary code--it
>doesn't give a rat's bum what syntax you are limited to write in--what
>prevents that from happening out here in the real world is the need for
>profit and to keep things proprietary--silly and very hampering... and,
>made me have to learn a dozen syntax's over the years... I am not hung
>up on syntax--and although I consider BASIC difficult in the fact it
>obfuscates what is "really happening", cobol is worse... both are still
>used, and microsoft would like to see everyone using "visual basic
>scripting"...
>
>I just don't fight the good fight anymore--will program in the language
>which someone stands beside and is willing to defend with their life...
>if the pay is good, the language is even better...
>
>If someone suddenly "develops" a "new" and "revolutionary" language--I
>guess I will grab a book and pick it up too... fact is, we have enough
>syntax's need someone to come up with "real" ideas...
>
>Warmest regards,
>John
>
>"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>news:jh3o91t8gksg37gce60p43bkjh9lgolppe@4ax.com...
>>
>> Well I've found that even with the 400 page manuals there's always a
>> question I have that's not covered. :(.... My favorite programming

>> experience was assembler on a 8 bit 6502. That was about as easy as
>> programming in basic. I can't imagine what programming a modern
>> processor in assembler would be like. I suspect for the most part
>> assembler on a P4 etc is a dead language.
>>
>> 73 Gary K8IQ
>>
>> On Mon, 30 May 2005 22:23:37 -0700, "John Smith"
>> <assemblywizard@gmail.com> wrote:
>>
>>>I have shelves full of 400 page programming books (well, some aren't
>>>much over 200 pages)... sometimes even they are not enough...
>>>
>>>Warmest regards,
>>>John
>>>
>>>"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>>>news:1hrl91lh6f251i79ua487cq9ejjqntiqoc@4ax.com...
>>>> Thanks for all the helpful programs Reg. I'm just curious what
>>>> programming language you are using to create the DOS programs ? I've
>>>> programmed in basic years ago and also Pascal and assembler. I'd
>>>> like
>>>> to do some programming for some simple projects of my own but don't
>>>> need or want anything like a 400 page book(s) for Visual C++ etc.
>>>>
>>>> Thanks in Advance.
>>>>
>>>> 73 Gary K8IQ
>>>
>>
>

12. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 01:58:40 UTC
From: Gary
Message-ID: <jd5q91lkgkneiqbfarfq42svl1t1t076eh@4ax.com>
Source record: 76175

On Tue, 31 May 2005 13:00:02 -0400, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

>I applaud Reg for his defense of structured programming. That is what is
>taught in computer engineering whether using assembler level languages or
>higher level languages. In programming, spaghetti is bad.
>
> Of course, at machine code level, a conditional branch includes what
>looks like a goto. Only a Californian troll would not understand that does
>not violate the idea of structured programming.
>
> Well done Reg!
> Mac N8TT

I'll never forget the days of trying to decipher some TRS-80 Model 1
Basic. You might read the first line or two and then have to a "goto
10000" statement for some subroutine. Spaghetti it was !

73 Mac ... Gary K8IQ

13. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 02:23:08 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <dY8ne.39281$6k7.9209@bignews4.bellsouth.net>
Source record: 76178

"John Smith" <assemblywizard@gmail.com> wrote in message
news:uT%me.156$cw2.6779041@news.sisna.com...
> Dead languages are languages like cobol, pascal, fortran and basic--they
> are still used, but out of main stream.

I've heard it said that there's more lines of Cobol in use than all the
lines of all the other languages combined.
That's not too surprising though, considering the wordiness of the language.
IBM mainframes and the AS400 both still use COBOL - (and another one you
didn't mention - RPG).

14. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 02:34:06 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <x89ne.256$EU2.9271406@news.sisna.com>
Source record: 76179

... the "wordiness" can be as plentiful as one wishes, after the
compiler and linker--it all looks the same--an assembly language
programmer has no problem reading it either way... the only people I
have ever found hung up on syntax--are non-coders... <frown>

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:dY8ne.39281$6k7.9209@bignews4.bellsouth.net...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:uT%me.156$cw2.6779041@news.sisna.com...
>> Dead languages are languages like cobol, pascal, fortran and
>> basic--they
>> are still used, but out of main stream.
>
> I've heard it said that there's more lines of Cobol in use than all
> the
> lines of all the other languages combined.
> That's not too surprising though, considering the wordiness of the
> language.
> IBM mainframes and the AS400 both still use COBOL - (and another one
> you
> didn't mention - RPG).
>
>

15. Re: HF loop antenna and angle of wire

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 02:37:12 UTC
From: KU4YP <ku4yp@verizon.net>
Message-ID: <sb9ne.6260$vK5.1295@trnddc03>
Source record: 76180

mine is pretty close to a true quad. cut for 80m. fed with 450 ladder line to a tuner. i like it. it gets kinda touchy on the higher bands. but for 80 and 40, it's the best thing i have ever used. lowest corner is about 15 to 20 foot off the ground. highest is about 45.

i agree, put it up and go with it. you'll soon learn which direction it "hears" the best.

--
Michael Prevatt " A clean hamshack is a sign
Bartow, Florida of a sick mind...."
Amateur Radio Callsign: KU4YP
Navy/Marine Corps Callsign: NNN0AAL
"Chuck W." <cwyatt@w3minds.com> wrote in message
news:1117487512.276073.164490@f14g2000cwb.googlegroups.com...
> FWIW, I'm feeding with about 60 feet of window line to a 4:1 balun and
> then to about 80 feet of Coax. My plan is to replace a good bit more
> of the coaxial line with the window line when I get around to it.
>
> My assumption is that this set up would be best for multi-band
> operation.
>
> 73,
>
> Chuck
> W1CEW
>

16. Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 04:00:00 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_429d2a4c@fidonet.org>
Source record: 76189

Hi,

This is a hypothetical question, if one needs to send more power down a line than its capacity can 2 or more lines be paralleled? Is the equivalent characteristic impedance of the combined lines the same as that of a single individual line?

A*s*i*m*o*v

... The bird of paradise alights only upon the hand that does not grasp.

17. Re: Marine VHF whip performance on ham 2m ham bands?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 04:23:23 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9667D99D92D3Fspectrumhogstarbandn@207.106.92.175>
Source record: 76182

```
>> Let me reiterate, the Motorola white Teflon jacketed RG-58 type
>> coax is
>> slightly smaller in diameter than regular RG-58 coax, but not any
>> more loss. Plus, the Teflon jacket is very slick, making pulling it
>> in tight quarters easier. I'd still suggest you use the original
>> coax as a pull line and pull up two of these Teflon jacketed coaxes.

>
> Teflon RG-303 is 0.170" in diameter.

Yup, .023" smaller than standard RG58. That, plus the slick Teflon
jacket may well allow him to pull up two Teflon cables in place of his
RG58.

Ed
```

18. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 05:00:58 UTC
From: jcooper874@webtv.net
Message-ID: <5118-429D410A-161@storefull-3275.bay.webtv.net>
Source record: 76183

open the tx on the ic 706 have a all in one radio problem solve

19. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 05:14:55 UTC
From: Buck <iam@this.site>
Message-ID: <k0hq915bi0q77p1fjk9652lnjoqlticar4@4ax.com>
Source record: 76184

On Tue, 31 May 2005 17:52:10 -0400, C. J. Clegg
<answer.to.newsgroup@nospam.com> wrote:

>
>I have an IC-706 mounted on my Honda Gold Wing motorcycle. The
>motorcycle has a dealer-installed CB radio with the CB antenna mounted
>in back on the left side of the trunk. I have a 7-foot loaded
>vertical for 40 meters mounted to the rear crash bar, only about a
>foot to a foot and a half from the CB antenna.
>
>My question is, if I transmit on 40 meters SSB at full power
>(nominally 100 watts, actually more like about 70 watts or so), am I
>likely to damage the front end of the CB radio? Will it matter if the
>CB radio is turned on or off?
>
>I could crank the power on the IC-706 back to as little as 10 watts
>but it's going to be hard enough to raise any QSOs with the full 100
>watts of power.
>
>On the other hand, the motorcycle CB is big bucks to replace and I'd
>be just as happy not to damage it...
>
>Thanks...
If the CB is off, you are likely not to have problems. If it is on,
it is possible. I don't know how likely, tho, as the quality of the
front end may make all the difference.

--
73 for now
Buck
N4PGW

20. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 05:21:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e5hq91dabupnpb96hat5aaafgleod075ei@4ax.com>
Source record: 76185

On Tue, 31 May 2005 18:27:58 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>point being, I answer to a boss

Hi Brett,

It isn't your boss writing this guff we read. Save it, I read enough
of this kind of explanation from Capitol Hill.

73's
Richard Clark, KB7QHC

21. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 05:41:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JUbne.273$1z5.10461259@news.sisna.com>
Source record: 76186

Richard:

Don't get so upset OM...
... of course, I can't toss as much BS as you are accustomed to...
wasn't it a 15 year old boy in the Netherlands, somewhere, which cracked the encryption on DVD movies? After some super team of "structured programmers" and "goto-less coders" sold the movie industry the idea it was safe to release their product in digital form? Un-breakable encryption they claimed--wasn't it?

Hey, aren't you from that industry--or did I get that wrong? <grin>

Well, probably just a fluke--it'll probably work next time...

Warmest regards,
Brett AKA "Big Bad John"

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:e5hq91dabupnpb96hat5aaafgleod075ei@4ax.com...
> On Tue, 31 May 2005 18:27:58 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>point being, I answer to a boss
>
> Hi Brett,
>
> It isn't your boss writing this guff we read. Save it, I read enough
> of this kind of explanation from Capitol Hill.
>
> 73's
> Richard Clark, KB7QHC

22. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 06:34:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gojq91ti1n6h2et1hc69v15b88rldrm3gh@4ax.com>
Source record: 76187

On Tue, 31 May 2005 22:41:57 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>... of course, I can't toss as much BS as you are accustomed to...

No, you don't do a very good job of it.

>wasn't it a 15 year old boy in the Netherlands, somewhere, which cracked
>the encryption on DVD movies?

Hi Brett,

You are talking about deCSS which proved irrevocably that NOT
following structured routes leads to ruin.

>After some super team of "structured
>programmers" and "goto-less coders" sold the movie industry the idea it
>was safe to release their product in digital form? Un-breakable
>encryption they claimed--wasn't it?

Once again, you supply a pale argument that literally exposes the
opposite of your bias. Those who "sold" this idea were NOT code
designers. You might carry more weight if you researched your
material before littering it here.

As Bruce Schneier offers in "Applied Cryptography," rolling your own
security is the easiest form of protection to crack. Clearly this
group who spun together CSS never got past his chapter 2 "Protocol
Building Blocks" and, if you haven't gotten the message yet, is
clearly the highest statement of structured programming around. Did
your college offer this subject as a weekend reading assignment during
Chico homecoming?

>Hey, aren't you from that industry--or did I get that wrong? <grin>

I doubt you could name an industry I haven't worked in. I also dug
ditches with the SeaBees and ran with many Diesel Boat Sailors. They
would unanimously qualify your BS as rather lame. I suppose most of
this has become tediously boring for others, why don't you try your
hand at antennas where foolish statements have at least an even field
for others to meet you on?

73's
Richard Clark, KB7QHC

23. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 06:50:37 UTC
From: Roland <roland_lemmersANTISPAM@planet.nl>
Message-ID: <d7jmmsrjj1@reader08.wxs.nl>
Source record: 76188
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony Elka wrote:
> In article <3CSke.1456$uu.1357@newssvr33.news.prodigy.com>,

> Does this park feature an attraction that simulates crucifixion? Or
> perhaps being fed to lions? That would be cool.
>
> Tony

Amen :)

Ro

24. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 10:36:29 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.sros23zvcdad2j@elbc-crz2m9noal>
Source record: 76190

On Thu, 02 Jun 2005 21:00:00 -0400, Asimov
<Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote:

> Hi,
>
> This is a hypothetical question, if one needs to send more power down
> a line than its capacity can 2 or more lines be paralleled? Is the
> equivalent characteristic impedance of the combined lines the same as
> that of a single individual line?
>
> A*s*i*m*o*v
>
> ... The bird of paradise alights only upon the hand that does not grasp.
>

The short answer is no to the question of the impedence being the same.
though the current would be halfed in each line. I'm not sure that I have
see a four wire open line in the past but if my memory is correct it fed
two dipoles not one.
73 Dave kc1di

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

25. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 12:50:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429dafe5$1_2@spool9-west.superfeed.net>
Source record: 76191

Asimov wrote:
> This is a hypothetical question, if one needs to send more power down
> a line than its capacity can 2 or more lines be paralleled? Is the
> equivalent characteristic impedance of the combined lines the same as
> that of a single individual line?

Let's say we parallel two pieces of lossless 50 ohm coax such
that the voltages at the load (V1 and V2) are equal magnitude
and phase. The currents at the load (I1 and I2) will be equal
magnitude and phase.

For matched line operation, V1/I1 = V2/I2 = 50 ohms.
Pload = (V1*I1)+(V2*I2) = 2*(V1*I1)
Vload = V1 = V2
Iload = I1 + I2
Rload *for matched line operation* = V1/(I1+I2) = V1/(2*I1).
Rload = 1/2(V1/I1) = 50/2 = 25 ohms. So 25 ohms is the
equivalent Z0 of two pieces of 50 ohm coax in *parallel*.

Conversely, if you use one piece of 50 ohm coax going to the
load and one piece of 50 ohm coax coming back from the load
to achieve a shielded balanced feedline, the Z0 of that
feedline is 2*Z0 = 100 ohms and the two lines are in *series*.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

26. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 12:59:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429db20a$1_2@spool9-west.superfeed.net>
Source record: 76192

KC1DI wrote:
> The short answer is no to the question of the impedence being the
> same. though the current would be halfed in each line. I'm not sure
> that I have see a four wire open line in the past but if my memory is
> correct it fed two dipoles not one.

An interesting article on such is "Quadro-Line: The Ideal
UHF Transmission Line", ARRL Antenna Compendium, Vol. 3.
It's four box-spaced wires in a parallel type transmission
line. Two adjacent wires have a Z0 of 200 ohms. Paralleling
the four wires yields a Z0 of 100 ohms. Choosing two diagonal
wires yields a Z0 of 250 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

27. Free Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 13:37:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7kdnb$s9c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 76193

It is well known that endfed 1/2-wave dipoles and similar length
antennas can be difficult, if not impossible, to tune up using
conventional T-tuners.

Download program TUNEHALF from website below and become familiar with
another tuner circuit which deals with vertical, inverted-L and
sloping antennas.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

28. Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 14:15:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429dc3d1$1_2@spool9-west.superfeed.net>
Source record: 76194

I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
information on my web page.
--
73, Cecil http://www.qsl.net/w5dxp/smith.htm

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

29. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 14:45:30 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <lSjne.16$G94.1070177@news.sisna.com>
Source record: 76195

Richard:

Ahhh, simple problem then, out thinking is simply 180 degrees out of phase, no problem, I like mine, you can change yours if harmony is the goal--not the goal here...

Have a nice day...

Warmest regards,
John

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:gojq91ti1n6h2et1hc69v15b88rldrm3gh@4ax.com...
> On Tue, 31 May 2005 22:41:57 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>... of course, I can't toss as much BS as you are accustomed to...
>
> No, you don't do a very good job of it.
>
>>wasn't it a 15 year old boy in the Netherlands, somewhere, which
>>cracked
>>the encryption on DVD movies?
>
> Hi Brett,
>
> You are talking about deCSS which proved irrevocably that NOT
> following structured routes leads to ruin.
>
>>After some super team of "structured
>>programmers" and "goto-less coders" sold the movie industry the idea
>>it
>>was safe to release their product in digital form? Un-breakable
>>encryption they claimed--wasn't it?
>
> Once again, you supply a pale argument that literally exposes the
> opposite of your bias. Those who "sold" this idea were NOT code
> designers. You might carry more weight if you researched your
> material before littering it here.
>
> As Bruce Schneier offers in "Applied Cryptography," rolling your own
> security is the easiest form of protection to crack. Clearly this
> group who spun together CSS never got past his chapter 2 "Protocol
> Building Blocks" and, if you haven't gotten the message yet, is
> clearly the highest statement of structured programming around. Did

> your college offer this subject as a weekend reading assignment during
> Chico homecoming?
>
>>Hey, aren't you from that industry--or did I get that wrong? <grin>
>
> I doubt you could name an industry I haven't worked in. I also dug
> ditches with the SeaBees and ran with many Diesel Boat Sailors. They
> would unanimously qualify your BS as rather lame. I suppose most of
> this has become tediously boring for others, why don't you try your
> hand at antennas where foolish statements have at least an even field
> for others to meet you on?
>
> 73's
> Richard Clark, KB7QHC

30. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 16:54:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gppr91plkfbp7bueop8kt7cbmts60dahba@4ax.com>
Source record: 76196

On Wed, 1 Jun 2005 07:45:30 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Ahhh, simple problem then, out thinking is simply 180 degrees out of
>phase, no problem, I like mine, you can change yours if harmony is the
>goal--not the goal here...

The ethic of Savonarola with the Bonfire of the Vanities, harmony was
achieved when they tested his combustion temperature a year later.

Brett, this is a game you are ill suited for.

73's
Richard Clark, KB7QHC

31. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 17:03:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7kpp6$9sm$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 76197

John, I have difficulty, and probably do others, in understanding your poetry.

Can I respectfully suggest you restrict your language to plain American-English and avoid Old English Shakespeare as beautiful and amusing as it may be.

Richard would also do better at communicating his ideas if he continued along the same lines. I'm sure there's lots of sense embedded in what you both have to say. But I am unable to dig it out.

Now please carry on with what you were saying.

Incidentally, I've now switched to South African red wine. And I'm not on speaking terms with my doctor. By chance he is a radio amateur who uses a G5RV. His nurses have more common sense.

Reg.

32. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 17:24:07 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <_amne.39$KS4.2613313@news.sisna.com>
Source record: 76198

Richard:

You play a game, I go on with life... I am quite sure that is why none
of it appears to make sense to you...

Warmest regards,
John

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:gppr91plkfbp7bueop8kt7cbmts60dahba@4ax.com...
> On Wed, 1 Jun 2005 07:45:30 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Ahhh, simple problem then, out thinking is simply 180 degrees out of
>>phase, no problem, I like mine, you can change yours if harmony is the
>>goal--not the goal here...
>
> The ethic of Savonarola with the Bonfire of the Vanities, harmony was
> achieved when they tested his combustion temperature a year later.
>
> Brett, this is a game you are ill suited for.
>
> 73's
> Richard Clark, KB7QHC

33. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 17:26:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Zcmne.40$rP4.2523276@news.sisna.com>
Source record: 76199

Reg:

Don't much care for wine here Reg... but a good shot of American
whiskey always makes the day brighter... <grin>

Warmest regards,
John AKA Brett

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d7kpp6$9sm$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> John, I have difficulty, and probably do others, in understanding your
> poetry.
>
> Can I respectfully suggest you restrict your language to plain
> American-English and avoid Old English Shakespeare as beautiful and
> amusing as it may be.
>
> Richard would also do better at communicating his ideas if he
> continued along the same lines. I'm sure there's lots of sense
> embedded in what you both have to say. But I am unable to dig it out.
>
> Now please carry on with what you were saying.
>
> Incidentally, I've now switched to South African red wine. And I'm not
> on speaking terms with my doctor. By chance he is a radio amateur who
> uses a G5RV. His nurses have more common sense.
> ----
> Reg.
>
>

34. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 17:59:08 UTC
From: Buck <iam@this.site>
Message-ID: <fqtr915e9lgdt0dntcga3qpp7045jk67jm@4ax.com>
Source record: 76200

On Wed, 1 Jun 2005 00:00:58 -0500, jcooper874@webtv.net wrote:

>open the tx on the ic 706 have a all in one radio problem solve

Sure, and risk a $10,000 fine and loss of license to protect a $150
CB.

--
73 for now
Buck
N4PGW

35. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 18:24:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <O3nne.44$qT4.2635901@news.sisna.com>
Source record: 76206

Richard:

The "180 phase-shift" in our thinking, I referred to, relates to this:

You mental-model knowledge as a well of water, if too many men drink and use--it may run dry.

My model is upon a virtual well, one of the mind, the more men (and women) who drink strengthen the source which feeds this well--and the "water of knowledge" springs forth in abundance. Indeed, it should only dry up if men obfuscate even the location of this well with quotes from Shakespeare! (Or worse, movies!)

Another example:
You model newsgroups as a few experts imparting their wisdom to the ignorant masses....

I model the newsgroups as a place where ignorant men overcome their limitations by group effort...

And, another:

You model antenna hobbyists as SUPERSTARS, each going to make enormous contributions on a solely individual basis...

I view us as a more socialistic model--where no man is of any significance and the results of the whole is what matters...

... and that appraisal/opinion of mine is what prompted me to state what I have and prompted me to the "180 phase-shift conclusion"...

Warmest regards,
Brett AKA John

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:gppr91plkfbp7bueop8kt7cbmts60dahba@4ax.com...
> On Wed, 1 Jun 2005 07:45:30 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Ahhh, simple problem then, out thinking is simply 180 degrees out of
>>phase, no problem, I like mine, you can change yours if harmony is the
>>goal--not the goal here...
>
> The ethic of Savonarola with the Bonfire of the Vanities, harmony was
> achieved when they tested his combustion temperature a year later.
>
> Brett, this is a game you are ill suited for.
>

> 73's
> Richard Clark, KB7QHC

36. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 18:30:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t5ur91pf22uv28pcsamk49s40gouuiv0t7@4ax.com>
Source record: 76201

On Wed, 1 Jun 2005 10:24:07 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>You play a game, I go on with life... I am quite sure that is why none
>of it appears to make sense to you...

Hi Brett,

None of it makes sense simply because you speak of life like an old
man waiting to die. If you wish to characterize my mode as "playing a
game," you should note that your indictment describes me as having
more vitality than your circular and repetitive excuses for embracing
a morbid ethic.

(Sorry Reg if too much of this English is derived from the Normans -
is this something Americans can cope with that Brits still fume over
after a thousand years? You know, you write very little authentic
Anglo Saxon in the first place to protest. Even more, those Mead
drinkers would sneer at your continental foppery over wine.)

So, we are all well acquainted that you will not yield a point without
deflections of tepid japery - give us your best rebound.

73's
Richard Clark, KB7QHC

37. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 18:39:32 UTC
From: rockyroads900@webtv.net
Message-ID: <6680-429E00E4-120@storefull-3274.bay.webtv.net>
Source record: 76202

lol

38. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 18:46:50 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <yonne.45$p35.2705538@news.sisna.com>
Source record: 76205

Richard:

Here we must separate paths, you are now focused on personal attacks on my intelligence, thinking, actions, words, opinions, beliefs and goals--and, if I read your words correctly--plan on denying me... you may continue upon your course--and I upon mine...

Have a nice day...

Warmest regards,
John

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:t5ur91pf22uv28pcsamk49s40gouuiv0t7@4ax.com...
> On Wed, 1 Jun 2005 10:24:07 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>You play a game, I go on with life... I am quite sure that is why
>>none
>>of it appears to make sense to you...
>
> Hi Brett,
>
> None of it makes sense simply because you speak of life like an old
> man waiting to die. If you wish to characterize my mode as "playing a
> game," you should note that your indictment describes me as having
> more vitality than your circular and repetitive excuses for embracing
> a morbid ethic.
>
> (Sorry Reg if too much of this English is derived from the Normans -
> is this something Americans can cope with that Brits still fume over
> after a thousand years? You know, you write very little authentic
> Anglo Saxon in the first place to protest. Even more, those Mead
> drinkers would sneer at your continental foppery over wine.)
>
> So, we are all well acquainted that you will not yield a point without
> deflections of tepid japery - give us your best rebound.
>
> 73's
> Richard Clark, KB7QHC

39. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 19:03:12 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <QDnne.8414$5u4.28085@nnrp1.uunet.ca>
Source record: 76203

On 31/05/2005 12:01 PM, John Smith wrote:
> Dead languages are languages like cobol, pascal, fortran and basic--they
> are still used, but out of main stream.
>
Indeed, these are certainly legacy languages. It might, however, ruffle a few feathers to throw COBOL into the same basket as Pascal. Your local bank manager or technical advisor may disagree violently on this subject.

That is, even if we ignore the fact that Pascal was primarily created to be a teaching language and Fortran was always a niche language (where it did quite well, and still does), there's quite a bit of life in COBOL yet.

This is my understanding since being pulled kicking and screaming into mainframe development because our customers demanded support of iSeries and z/OS environments. I can say with all honesty that it is possible to learn enough COBOL to make a small TCP/IP app that works quite well in busy mainframe environment. So far the bugs I'm finding are in Java on Win32 :)

In the process of doing so I also learned that not only is there more COBOL code being actively maintained than any other language, out of all new enterprise "mission critical" software development projects last year COBOL was the language of choice for over 50% Of all new application starts, COBOL represents 15% See <http://www.csis.ul.ie/cobol/Course/COBOLIntro.htm> (I have no affiliation with this site, nor have I independently verified these numbers which appear to originate from the Gartner Group.)

I'd expect the former, given how many legacy apps written for hardened banking, medical and insurance systems are written in COBOL. I mean, Gartner reports that there are 240 billion lines of maintained COBOL out there. All other languages represent 60 billion. That's a lot of COBOL code.

The last was a surprise to me. I imagine numbers like this can be sliced any way you like, but in my short experience there is a lot of active COBOL development going on out there.

A lot of this has to do with the fact that the ANSI/ISO standard for COBOL has been constantly updated, while allowing 40-year old apps to still compile and run.

COBOL is easy to make fun of, but it still casts a deep shadow; I suspect it will continue to do so for years.

[...]

> I just don't fight the good fight anymore--will program in the language
> which someone stands beside and is willing to defend with their life...
> if the pay is good, the language is even better...
>
Quite true, in my experience. I quite enjoy being forced to learn new
tools and techniques.

> If someone suddenly "develops" a "new" and "revolutionary" language--I
> guess I will grab a book and pick it up too... fact is, we have enough
> syntax's need someone to come up with "real" ideas...
>
This happens regularly. There are all kinds of neat languages to look
at. One of the tenets of "Pragmatic Programming" is to learn a new
language a year if you are a working coder.

My favourite new (to me) languages lately are Ruby and Haskell. The
former is a pure Smalltalk-like OO interpretive language. Great
prototyping language. The latter is a very pure functional language.
For those of us who cut our teeth on functional languages, it's quite a
fresh look.

40. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 19:20:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <jUnne.48$0a5.2756707@news.sisna.com>
Source record: 76204

clvrmnky:

One thing you may be overlooking, many cobol programmers are only in
their 50's and early 60's and have not retired yet... they have become
senior in positions and their mindset still has much influence... in the
next decade--this begins to crumble...

Warmest regards,
John

"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message
news:QDnne.8414$5u4.28085@nnrp1.uunet.ca...
> On 31/05/2005 12:01 PM, John Smith wrote:
>> Dead languages are languages like cobol, pascal, fortran and
>> basic--they
>> are still used, but out of main stream.
>>
> Indeed, these are certainly legacy languages. It might, however,
> ruffle
> a few feathers to throw COBOL into the same basket as Pascal. Your
> local bank manager or technical advisor may disagree violently on this
> subject.
>
> That is, even if we ignore the fact that Pascal was primarily created
> to
> be a teaching language and Fortran was always a niche language (where
> it
> did quite well, and still does), there's quite a bit of life in COBOL
> yet.
>
> This is my understanding since being pulled kicking and screaming into
> mainframe development because our customers demanded support of
> iSeries
> and z/OS environments. I can say with all honesty that it is possible
> to learn enough COBOL to make a small TCP/IP app that works quite well
> in busy mainframe environment. So far the bugs I'm finding are in
> Java
> on Win32 :)
>
> In the process of doing so I also learned that not only is there more
> COBOL code being actively maintained than any other language, out of
> all
> new enterprise "mission critical" software development projects last
> year COBOL was the language of choice for over 50% Of all new
> application starts, COBOL represents 15% See

> <http://www.csis.ul.ie/cobol/Course/COBOLIntro.htm> (I have no
> affiliation with this site, nor have I independently verified these
> numbers which appear to originate from the Gartner Group.)
>
> I'd expect the former, given how many legacy apps written for hardened
> banking, medical and insurance systems are written in COBOL. I mean,
> Gartner reports that there are 240 billion lines of maintained COBOL
> out
> there. All other languages represent 60 billion. That's a lot of
> COBOL
> code.
>
> The last was a surprise to me. I imagine numbers like this can be
> sliced any way you like, but in my short experience there is a lot of
> active COBOL development going on out there.
>
> A lot of this has to do with the fact that the ANSI/ISO standard for
> COBOL has been constantly updated, while allowing 40-year old apps to
> still compile and run.
>
> COBOL is easy to make fun of, but it still casts a deep shadow; I
> suspect it will continue to do so for years.
>
> [...]
>
>> I just don't fight the good fight anymore--will program in the
>> language
>> which someone stands beside and is willing to defend with their
>> life...
>> if the pay is good, the language is even better...
>>
> Quite true, in my experience. I quite enjoy being forced to learn new
> tools and techniques.
>
>> If someone suddenly "develops" a "new" and "revolutionary"
>> language--I
>> guess I will grab a book and pick it up too... fact is, we have
>> enough
>> syntax's need someone to come up with "real" ideas...
>>
> This happens regularly. There are all kinds of neat languages to look
> at. One of the tenets of "Pragmatic Programming" is to learn a new
> language a year if you are a working coder.
>
> My favourite new (to me) languages lately are Ruby and Haskell. The
> former is a pure Smalltalk-like OO interpretive language. Great
> prototyping language. The latter is a very pure functional language.
> For those of us who cut our teeth on functional languages, it's quite
> a
> fresh look.

41. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 21:33:26 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <119sabtehalju0e@corp.supernews.com>
Source record: 76207

"Buck" <iam@this.site> wrote in message
news:fqtr915e9lgdt0dntcga3qpp7045jk67jm@4ax.com...
> On Wed, 1 Jun 2005 00:00:58 -0500, jcooper874@webtv.net wrote:
> >open the tx on the ic 706 have a all in one radio problem solve
> Sure, and risk a $10,000 fine and loss of license to protect a $150
> CB.

He'd be breaking the letter of the law but -- assuming he dialed the 706 back to 5W -- not really the intent, IMO. I really can't imagine the FCC pursuing the issue. True story: I used to live next door to a guy with a linear amp on his CB, I called up the FCC field office, and they told me there wasn't anything they could do. Said they had official monitoring stations that, if they picked up the guy's transmission, they could go after him, but they just didn't have the resources to pursue complaints from people calling in violators. And, oh, did I want their free brochure on mitigating interference to my own electronics?

:-(

I bet a Goldwing CB is also closer to $1k than $150!

---Joel Kolstad

42. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 21:39:26 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <iWpne.8433$5u4.28032@nnrp1.uunet.ca>
Source record: 76208

On 01/06/2005 3:20 PM, John Smith wrote:
> clvrmnky:
>
> One thing you may be overlooking, many cobol programmers are only in
> their 50's and early 60's and have not retired yet... they have become
> senior in positions and their mindset still has much influence... in the
> next decade--this begins to crumble...
>

It may be a truism that COBOL coders are older than other coders (I'm in my 30s) and that these people /may/ be driving the decisions to continue to use it. I don't agree this is the primary driving factor for how COBOL gets used in the real world.

That fact is that a good number of huge corporations (often referred to as the "Global 1000") continue to use COBOL regardless of the age of their project managers. COBOL has outlived the first wave of original users of the language. Apparently the mean age for a working mainframe developer is in the 35-45 demographic. These guys were just babies (like me!) in 1968. Someone mentioned that last year's SHARE conference had a younger crowd than ever before. There is talk about a "third-wave" of mainframe developers (a demographic I'm not in a hurry to join.)

Like I said, we have over 40 years of very, very mission critical systems to maintain. These corps are very, very conservative about changing these systems. It is naive, at best, to think that there is one single factor that would drive these corporations to switch to something else the day they retire the last old-timer.

I'm personally glad that banks, insurance underwriters and telcos use big iron running truly time-tested technology to keep their uptimes measured in years.

I not suggesting that COBOL will never be replaced. I'm suggesting that things will not "crumble" but will be slowly migrated in a *highly* controlled manner to other systems. Generally, this means that legacy systems continue to work just as they always did, with features and add-ons coming in the form of frameworks like MQSeries from IBM.

At any rate, I'm not sure we can trust anyone's crystal ball. All we know is that traditionally the shops that use COBOL do not like risk of any sort, and love to manage risk as much as possible. Any move away from COBOL will be steady and controlled, and will likely keep people employed for years to come.

For this reason alone, COBOL belongs in another pile altogether from Pascal or even FORTRAN.

In fact, this very reasoning supports some of the decisions that the embedded world makes. There are less and less reasons to make hand-coded assembler or use speciality languages like real-time C or Forth. Not unless one happens to be in the embedded systems world, whereupon it suddenly makes a whole lot of sense. When you are making 1000 widgets that will be deployed for decades and then promptly forgotten about, it makes sense to consider "alternatives" to the status quo.

Is there a reason for anyone who doesn't work on z/OS or iSeries to learn COBOL? No. Does the fact that small application shops, shops that target home and office PCs and hobbyists don't use a language make that language obsolete? Absolutely not.

The thing I've learned about this business is that one never know as much as one thinks they do!

43. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 21:53:51 UTC
From: dplatt@radagast.org
Message-ID: <119sbjfngbiaa7@corp.supernews.com>
Source record: 76209

In article <119sabtehalju0e@corp.supernews.com>,
Joel Kolstad <JKolstad71HatesSpam@yahoo.com> wrote:

>He'd be breaking the letter of the law but -- assuming he dialed the 706 back
>to 5W -- not really the intent, IMO.

Depends on how you read the FCC's intent. If the intent is to limit
power output on the band, yes. If the intent is to require that all
CB transmitters be specifically certificated for this band, no.

The FCC's letters and findings (e.g. when they bust a dealer for
selling "10-meter amateur radio" systems easily converted to 11-meter
operation) seem to me to be asserting the latter pretty consistently.

> I really can't imagine the FCC pursuing
>the issue. True story: I used to live next door to a guy with a linear amp on
>his CB, I called up the FCC field office, and they told me there wasn't
>anything they could do. Said they had official monitoring stations that, if
>they picked up the guy's transmission, they could go after him, but they just
>didn't have the resources to pursue complaints from people calling in
>violators.

They do seem to be fairly limited in their ability (or motivation) to
pursue such violations. There are quite a few places on the Net which
advertise "10-meter" radios and also offer "11-meter conversion"
services for 'em. I think I can count, on the fingers of one hand,
the number of dealerships which have been cited for such things in the
past couple of years, and I'd probably have one or two fingers left
over.

> And, oh, did I want their free brochure on mitigating interference
>to my own electronics?

I seem to recall that somebody (FCC, Congress, ??) pushed through a
change to the laws/regulations, and explicitly gave local
law-enforcement organizations the legal power to prosecute cases of
interference caused by illegally-amplified CB transmitters. Most
police departments are likely either to not know this or not be
terribly interested in pursuing such cases, but in case of severe
unrelenting interference from a known point of origin it might be
worth trying to get them to act on it (on "creating a public nuisance"
or similar grounds).

As to the OP's query - in his situation I'd be tempted to try to wire
up a set of RF and DC relays, which would prevent both rigs from being
powered up at the same time, and would short the antenna connection on
the unpowered rig.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

44. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 22:03:54 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <lhqne.68$TS5.3281020@news.sisna.com>
Source record: 76210

clvrmnky:

As I have already stated, I have given up religious wars over syntax... all that is left for me is to wonder why anyone would go on developing in it (COBOL--I understand maintaining old code for economic reasons)

All which stands clear to me is that "C++" can do all of what the others might achieve, combined (barring assembly, which is the root of all)...

... if MBA's dream of reading source and understanding it--not even COBOL will grant them their dream... though they might pretend, more or less successfully...

If you do not trust your programmers, you will limit them with their language--I guess I am luckily I still have a position where all which matters is our results and the department head is a strong programmer with acceptable backbone... the coding dept here is looked upon as a blackbox, you hand us specs, we give you working code... if all goes well, no complaints... no one second guess you...

I know COBOL programmers argue syntax as if their very lives depended on it (other languages too, to at least a degree), why has always been a complete mystery to me, in the end I just chalked it up to fear of "C"...

To try to give you a perspective of how this looks to me, the guy with cobol looks like he is standing there with a sliderule in hand--the "C" programmer as having a graphing scientific calculator in hand... both can get the job done--I just expect to obtain better results from one...

Warmest regards,
John

"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message news:iWpne.8433$5u4.28032@nnrp1.uunet.ca...
> On 01/06/2005 3:20 PM, John Smith wrote:
>> clvrmnky:
>>
>> One thing you may be overlooking, many cobol programmers are only in
>> their 50's and early 60's and have not retired yet... they have
>> become
>> senior in positions and their mindset still has much influence... in
>> the
>> next decade--this begins to crumble...
>>
>
> It may be a truism that COBOL coders are older than other coders (I'm

> in
> my 30s) and that these people /may/ be driving the decisions to
> continue
> to use it. I don't agree this is the primary driving factor for how
> COBOL gets used in the real world.
>
> That fact is that a good number of huge corporations (often referred
> to
> as the "Global 1000") continue to use COBOL regardless of the age of
> their project managers. COBOL has outlived the first wave of original
> users of the language. Apparently the mean age for a working
> mainframe
> developer is in the 35-45 demographic. These guys were just babies
> (like me!) in 1968. Someone mentioned that last year's SHARE
> conference
> had a younger crowd than ever before. There is talk about a
> "third-wave" of mainframe developers (a demographic I'm not in a hurry
> to join.)
>
> Like I said, we have over 40 years of very, very mission critical
> systems to maintain. These corps are very, very conservative about
> changing these systems. It is naive, at best, to think that there is
> one single factor that would drive these corporations to switch to
> something else the day they retire the last old-timer.
>
> I'm personally glad that banks, insurance underwriters and telcos use
> big iron running truly time-tested technology to keep their uptimes
> measured in years.
>
> I not suggesting that COBOL will never be replaced. I'm suggesting
> that
> things will not "crumble" but will be slowly migrated in a *highly*
> controlled manner to other systems. Generally, this means that legacy
> systems continue to work just as they always did, with features and
> add-ons coming in the form of frameworks like MQSeries from IBM.
>
> At any rate, I'm not sure we can trust anyone's crystal ball. All we
> know is that traditionally the shops that use COBOL do not like risk
> of
> any sort, and love to manage risk as much as possible. Any move away
> from COBOL will be steady and controlled, and will likely keep people
> employed for years to come.
>
> For this reason alone, COBOL belongs in another pile altogether from
> Pascal or even FORTRAN.
>
> In fact, this very reasoning supports some of the decisions that the
> embedded world makes. There are less and less reasons to make
> hand-coded assembler or use speciality languages like real-time C or
> Forth. Not unless one happens to be in the embedded systems world,

> whereupon it suddenly makes a whole lot of sense. When you are making
> 1000 widgets that will be deployed for decades and then promptly
> forgotten about, it makes sense to consider "alternatives" to the
> status
> quo.
>
> Is there a reason for anyone who doesn't work on z/OS or iSeries to
> learn COBOL? No. Does the fact that small application shops, shops
> that target home and office PCs and hobbyists don't use a language
> make
> that language obsolete? Absolutely not.
>
> The thing I've learned about this business is that one never know as
> much as one thinks they do!

45. Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 22:49:08 UTC
From: Christopher O'Callaghan <d.ocallaghan@iolfree.ie>
Message-ID: <d7le21$p0q$1@reader01.news.esat.net>
Source record: 76211

Hello,
Where would i find a roger bleep which would consist of a number of
different tones in one bleep?I want to install it inside of a Motorola GM350
for commercial use.
Any assistance is appreciated!

All the best
Chris

46. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 22:56:54 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <V0rne.42600$6k7.2217@bignews4.bellsouth.net>
Source record: 76212

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:d7le21$p0q$1@reader01.news.esat.net...
> Hello,
> Where would i find a roger bleep which would consist of a number of
> different tones in one bleep?I want to install it inside of a Motorola
GM350
> for commercial use.
> Any assistance is appreciated!
>
> All the best
> Chris

nah
;-)
You might try the manufacturer.
RogerBleepinBuddy Corp

47. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:02:05 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <L5rne.42602$6k7.16191@bignews4.bellsouth.net>
Source record: 76213

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429dc3d1$1_2@spool9-west.superfeed.net...
> I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
> information on my web page.
> --
> 73, Cecil http://www.qsl.net/w5dxp/smith.htm
=----
Its a purty chart, too.
I've got nothing but respect for folks that have the patience to sit down
and figure out how to use one of those.

48. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:02:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <28rne.77$N76.3456141@news.sisna.com>
Source record: 76224

Hal:

<grin> <roger-bleep!>

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:V0rne.42600$6k7.2217@bignews4.bellsouth.net...
>
> "Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
> news:d7le21$p0q$1@reader01.news.esat.net...
>> Hello,
>> Where would i find a roger bleep which would consist of a number of
>> different tones in one bleep?I want to install it inside of a
>> Motorola
> GM350
>> for commercial use.
>> Any assistance is appreciated!
>>
>> All the best
>> Chris
>
> nah
> ;-)
> You might try the manufacturer.
> RogerBleepinBuddy Corp
>
>

49. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:10:21 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Afrne.78$uh6.3574931@news.sisna.com>
Source record: 76214

Christopher:

Excuse my humor in my previous post.

Roger beeps are considered VERY bad behavior when used on ham bands.
Indeed, the only place I have ever seen them used is by truck drivers on
the CB band.

They shortly grow annoying... I would suggest against their use, but if
you really have to have one, ask on rec.radio.cb they will be able to
provide you with a source, I am sure...

Warmest regards,
John

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:d7le21$p0q$1@reader01.news.esat.net...
> Hello,
> Where would i find a roger bleep which would consist of a number of
> different tones in one bleep?I want to install it inside of a Motorola
> GM350
> for commercial use.
> Any assistance is appreciated!
>
> All the best
> Chris
>
>
>

50. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:16:27 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ejrne.42627$6k7.20745@bignews4.bellsouth.net>
Source record: 76216

For 60hz power lines there's no problem, and impedence isn't usually an
issue,
but since we're on an antenna group, we assume you're referring to RF
transmission line.
If you parallel 2 lines - the overall impedence halves
If you run 2 lines in series (which <looks like> parallel) its like having
twinlead made from coax - and the impedence is doubled.
I've used combinations of both for making matching sections.

The hand of paradise lights the birds only.
A*b*a*c*a*d*a*b*a
.-- ....- .--. -- .---
dadadidahdidah

"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
news:MSGID_1=3a167=2f133.0_429d2a4c@fidonet.org...
> Hi,
>
> This is a hypothetical question, if one needs to send more power down
> a line than its capacity can 2 or more lines be paralleled? Is the
> equivalent characteristic impedance of the combined lines the same as
> that of a single individual line?
>
> A*s*i*m*o*v
>
> ... The bird of paradise alights only upon the hand that does not grasp.
>

51. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:18:06 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Omrne.10735$m%3.9929@trnddc02>
Source record: 76215

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:L5rne.42602$6k7.16191@bignews4.bellsouth.net...
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:429dc3d1$1_2@spool9-west.superfeed.net...
>> I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
>> information on my web page.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp/smith.htm
> =----
> Its a purty chart, too.
> I've got nothing but respect for folks that have the patience to sit down
> and figure out how to use one of those.

Hal

It surprises me to read that you consider the Smith Chart difficult to
use. I'd bet that you could figure out how to use one to your benefit
within 20 minutes of asking questions of someone who uses them.

Jerry

52. Re: Looking for a do it yourself design for a 804-894 MHz yagi Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:18:29 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7Irne.42628$6k7.18271@bignews4.bellsouth.net>
Source record: 76217

"James Poole" <kpoole@nf.sympatico.ca> wrote in message
news:VlJme.5557$_r1.214624@news20.bellglobal.com...
>
>

judging from the responses
they decided to let you
do it yourself

53. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-01 23:26:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Curne.82$nh6.3571735@news.sisna.com>
Source record: 76218

Jerry:

He may mean it in the sense of using a sliderule--why if you have a
program, programmable calculator to give results?

Warmest regards,
John

"Jerry Martes" <j.jmartes@verizon.net> wrote in message
news:Omrne.10735$m%3.9929@trnddc02...
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:L5rne.42602$6k7.16191@bignews4.bellsouth.net...
>>
>> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> news:429dc3d1$1_2@spool9-west.superfeed.net...
>>> I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
>>> information on my web page.
>>> --
>>> 73, Cecil http://www.qsl.net/w5dxp/smith.htm
>> =----
>> Its a purty chart, too.
>> I've got nothing but respect for folks that have the patience to sit
>> down
>> and figure out how to use one of those.
>
> Hal
>
> It surprises me to read that you consider the Smith Chart difficult
> to use. I'd bet that you could figure out how to use one to your
> benefit within 20 minutes of asking questions of someone who uses
> them.
>
> Jerry
>
>

54. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:02:45 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <D_rne.42637$6k7.25579@bignews4.bellsouth.net>
Source record: 76219

> Hal
>
> It surprises me to read that you consider the Smith Chart difficult to
> use. I'd bet that you could figure out how to use one to your benefit
> within 20 minutes of asking questions of someone who uses them.
>
> Jerry

Jerry,
You're probably right. I could probably lean how in an afternoon.
I sat down with one I printed out once, and thought I had it figured out.
Then when I needed to use it again, I would need to be retrained.
I remember how to use an MFJ259 from use to use, though. :-)

I just don't have the patience - it just doesn't grab my attention like a
gizmo does.

55. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:07:02 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <F2sne.42638$6k7.41184@bignews4.bellsouth.net>
Source record: 76220

So now you're pickin' on my slide rule? Is nothing sacred??
I like my slide rule. Its more useful than my solar-powered flashlight.
The slide rule works without <any> power or batteries. :-)
And its accurate to 3 (sometimes 4) significant digits.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Curne.82$nh6.3571735@news.sisna.com...
> Jerry:
>
> He may mean it in the sense of using a sliderule--why if you have a
> program, programmable calculator to give results?
>
> Warmest regards,
> John

56. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:09:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <h7sne.90$M96.3497108@news.sisna.com>
Source record: 76221

Hal:

I too am lazy... I think we found one thing we agree on... a beer in a hammock with a programmable calculator is to be preferred to a table, straightedge and smith chart... besides, I scribble on 'em.... <frown>

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:D_rne.42637$6k7.25579@bignews4.bellsouth.net...
>> Hal
>>
>> It surprises me to read that you consider the Smith Chart difficult
>> to
>> use. I'd bet that you could figure out how to use one to your
>> benefit
>> within 20 minutes of asking questions of someone who uses them.
>>
>> Jerry
>
> Jerry,
> You're probably right. I could probably lean how in an afternoon.
> I sat down with one I printed out once, and thought I had it figured
> out.
> Then when I needed to use it again, I would need to be retrained.
> I remember how to use an MFJ259 from use to use, though. :-)
>
> I just don't have the patience - it just doesn't grab my attention
> like a
> gizmo does.
>
>

57. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:24:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Clsne.97$gY6.3794063@news.sisna.com>
Source record: 76222

I have an old pickett slide around here somewhere--ahhh, like you, never
throw anything away lol....

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:F2sne.42638$6k7.41184@bignews4.bellsouth.net...
> So now you're pickin' on my slide rule? Is nothing sacred??
> I like my slide rule. Its more useful than my solar-powered
> flashlight.
> The slide rule works without <any> power or batteries. :-)
> And its accurate to 3 (sometimes 4) significant digits.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:Curne.82$nh6.3571735@news.sisna.com...
>> Jerry:
>>
>> He may mean it in the sense of using a sliderule--why if you have a
>> program, programmable calculator to give results?
>>
>> Warmest regards,
>> John
>
>

58. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:25:17 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Ljsne.42641$6k7.30201@bignews4.bellsouth.net>
Source record: 76025

"John Smith" <assemblywizard@gmail.com> wrote in message
news:h7sne.90$M96.3497108@news.sisna.com...
> Hal:
>
> I too am lazy... I think we found one thing we agree on... a beer in a
> hammock with a programmable calculator is to be preferred to a table,
> straightedge and smith chart... besides, I scribble on 'em.... <frown>
>
> Warmest regards,
> John

Scribbble on 'em??
That implies you have occasionally used the old-fashioned "pencil".
Lets narrow it down to the beer and hammock for now. ;-)
not partial to calculators, phones, or loud music.

59. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:26:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ansne.98$jl6.3677217@news.sisna.com>
Source record: 76223

I should point out, everyone should at least know about a smith and have
used it... kinda gives you a "feel" for the way all the variables work
together... it is a good thing...

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:h7sne.90$M96.3497108@news.sisna.com...
> Hal:
>
> I too am lazy... I think we found one thing we agree on... a beer in
> a hammock with a programmable calculator is to be preferred to a
> table, straightedge and smith chart... besides, I scribble on 'em....
> <frown>
>
> Warmest regards,
> John
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:D_rne.42637$6k7.25579@bignews4.bellsouth.net...
>>> Hal
>>>
>>> It surprises me to read that you consider the Smith Chart
>>> difficult to
>>> use. I'd bet that you could figure out how to use one to your
>>> benefit
>>> within 20 minutes of asking questions of someone who uses them.
>>>
>>> Jerry
>>
>> Jerry,
>> You're probably right. I could probably lean how in an afternoon.
>> I sat down with one I printed out once, and thought I had it figured
>> out.
>> Then when I needed to use it again, I would need to be retrained.
>> I remember how to use an MFJ259 from use to use, though. :-)
>>
>> I just don't have the patience - it just doesn't grab my attention
>> like a
>> gizmo does.
>>
>>
>
>

60. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:30:26 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Aosne.42642$6k7.30946@bignews4.bellsouth.net>
Source record: 76026

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Clsne.97$gY6.3794063@news.sisna.com...
> I have an old pickett slide around here somewhere--ahhh, like you, never
> throw anything away lol....
>
> Warmest regards,
> John

The term "old slide rule" is a bit redundant, some would say.
My new slide rule is only about 30 yrs old. Plenty of life left in it.

61. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:32:15 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <iqsne.42643$6k7.2568@bignews4.bellsouth.net>
Source record: 76027

I agree - like I said - I have nothing but respect for those who figure them out.

62. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:43:01 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <03ls91d7lspfk38r670g57eq9ie5dbo0vm@4ax.com>
Source record: 76028

On Wed, 1 Jun 2005 23:49:08 +0100, "Christopher O'Callaghan"
<d.ocallaghan@iolfree.ie> wrote:

>Hello,
>Where would i find a roger bleep which would consist of a number of
>different tones in one bleep?I want to install it inside of a Motorola GM350
>for commercial use.
>Any assistance is appreciated!
>
>All the best
>Chris
>
>

My Motorola Maxtrak beeps just as I key it to talk on the 800 mhz
band. Does that qualify as a roger-bleep? It should be built into your
Motorola, too.

Just what kind of a bleep are you looking for? Talk about picky :-(

bob
k5qwg

63. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:54:19 UTC
From: Fabian Kurz <usenet@fkurz.net>
Message-ID: <3g73lrFaotnpU3@news.dfncis.de>
Source record: 76029

John Smith <assemblywizard@gmail.com> wrote:
> Roger beeps are considered VERY bad behavior when used on ham bands.
> Indeed, the only place I have ever seen them used is by truck drivers on
> the CB band.

Roger beeps are actually used a lot on VHF SSB here in EU,
and they nicely show what an inefficient mode SSB is. Hardly
a VHF contest goes by, when I do NOT hear a station in SSB
calling me, where everything I can clearly copy is the
rogerbeep ;)

73 & CW4ever,
--
Fabian Kurz, DJ1YFK * Dresden, Germany * http://fkurz.net/

64. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 00:54:30 UTC
From: TJ <tjtrucker@hotmail.com>
Message-ID: <aNsne.1535070$Xk.1107532@pd7tw3no>
Source record: 76030

The cost of a CB intigrated system radio on a Honda Goldwing is around $900 US and it's made by Panisonic. As for the FCC nabbing a motorcyclist for operating his amateur radio on CB, well even if they could track him it's not worth the effort. AKA how many truckers are using a lot more than 5 watts and you don't see many of them being targetted by the FCC. I know because I used my 706 on 11 meters when my Cobra went up in smoke on me on a trip to Arizona. And would you believe the state tropper in the Port of entry scale was more interested in my scanner than anything else. And then only till he found out I was a licenced amateur, then he wasn't interested at all. What he told me was that state law had no aurthority to do anything when it came to radios if I held an amateur radio licence. He said the last thing they want is the Feds breathing down on him for causing trouble to a licenced amateur radio operator, regardless if he's from Canada, USA or Mexico it's the same thing. But now watch yourself in the state of Washington, the FCC is hot and heavy in this state, I think it has a lot to do with the military bases on the Pacific Northwest.
I had my 706 on my old GL1200 and it worked like a charm, mind you I didn't run full power, a motorcyle battery is no where near as hefty as a car or truck battery and my head is a little too close to the antenna to suite me. You do know wher the term "hothead" came from.

73.....ve7agw

65. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 01:17:27 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <v7ns91h70caggmjpok8r9mnq21o0pescdg@4ax.com>
Source record: 76031

On Tue, 31 May 2005 22:41:57 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Richard:
>
>Don't get so upset OM...
>... of course, I can't toss as much BS as you are accustomed to...
>wasn't it a 15 year old boy in the Netherlands, somewhere, which cracked
>the encryption on DVD movies? After some super team of "structured
>programmers" and "goto-less coders" sold the movie industry the idea it
>was safe to release their product in digital form? Un-breakable
>encryption they claimed--wasn't it?
>
>Hey, aren't you from that industry--or did I get that wrong? <grin>
>
>Well, probably just a fluke--it'll probably work next time...
>
>Warmest regards,
>Brett AKA "Big Bad John"
>
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:e5hq91dabupnpb96hat5aaafgleod075ei@4ax.com...
>> On Tue, 31 May 2005 18:27:58 -0700, "John Smith"
>> <assemblywizard@gmail.com> wrote:
>>
>>>point being, I answer to a boss
>>
>> Hi Brett,
>>
>> It isn't your boss writing this guff we read. Save it, I read enough
>> of this kind of explanation from Capitol Hill.
>>
>> 73's
>> Richard Clark, KB7QHC
>

A poor algorithm and bad math can be implemented anyway you like,
strutured or kludge and it will be broken. Of course, it will be
easier to see what went wrong with the structured code. A good crypto
system can be done by hand and be un-crackable or DES can be done as
elegantly as is humanly possible and we all know what became of DES.

Russ, who has probably written as much code as anyone out there

66. * * * Please Read And/Or Print This! * * * Press [Ctrl][P] Keys On Your Keyboard To Print >> June 1, 2004 9:25:57 pm >> http://115639.aceboard.net/forum2.php?rub=158&cat=61&login=115639&page=0#id96 << *

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 01:25:19 UTC
From: eprint10119@yahoo.com
Message-ID: <1117675519.114209.299410@f14g2000cwb.googlegroups.com>
Source record: 76032
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
* * * Please Read And/Or Print This! * * * Press [Ctrl][P] Keys On
Your Keyboard To Print >> June 1, 2004 9:26:00 pm >>
http://115639.aceboard.net/forum2.php?rub=158&cat=61&login=115639&page=0#id96
<< * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

67. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 01:27:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tgns91d4ogq8lv042rs747vairj5d6anf4@4ax.com>
Source record: 76033

On Thu, 02 Jun 2005 01:17:27 GMT, Russ <carlzomer@hotmail.com> wrote:

>A good crypto system can be done by hand and be un-crackable

Hi Russ,

Schneier holds that only ONE cryptographic system is un-crackable: a one time pad - provided you (you meaning the pair in communication) have the only key and then destroy it immediately after ONE use. Every thing else succumbs to brute force if the secret's lifetime (its value over time) is long enough.

Basically it boils down to cycles/cent, and the CSS lobby made their algorithm the cheapest crack on the market. Roll your own security and that's the consequences. Ultimately, security is no better than the last bozo to touch the code.

Dan Brown's "The Digital Fortress" is a page-turner that moves on these very precepts. The classic by Clifford Stoll, "The Cuckoo's Egg" is an excellent detective story illustrating the perils in real (1980s era) life.

73's
Richard Clark, KB7QHC

68. Re: AGAIN????!!!!?????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 01:31:22 UTC
From: JayePMorganSucks---KimWildeRocks <cjrogan2003@yahoo.com>
Message-ID: <1117675882.687132.124510@g14g2000cwa.googlegroups.com>
Source record: 76034
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

eprint10119@yahoo.com wrote:
> * * * Please Read And/Or Print This! * * * Press [Ctrl][P] Keys On
> Your Keyboard To Print >> June 1, 2004 9:26:00 pm >>
> http://115639.aceboard.net/forum2.php?rub=158&cat=61&login=115639&page=0#id96
> << *
> *
> *
> *

Yep, you again. Just go away.

69. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 01:33:05 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <429e61e6$0$3716$39cecf19@news.twtelecom.net>
Source record: 76035

Hal Rosser wrote:

> So now you're pickin' on my slide rule? Is nothing sacred??
> I like my slide rule. Its more useful than my solar-powered flashlight.
> The slide rule works without <any> power or batteries. :-)
> And its accurate to 3 (sometimes 4) significant digits.

Solar powered flashlight? Heck, we have a made up loony lefty here in Minneapolis who wants people to use electric powered generators to reduce noise and pollution during emergencies. Morgan Q. E. Wolfe-Slattery, a true Euphorian.

I have 2 slide rules that I picked up recently, but I miss my easy on the eyes yellow aluminum Pickett LogLogDeciTrig (I think that's what it was) that got misplaced during a move a couple decades ago. I also wish I still had my HP35, 45 and 11C. I do have a working HP25, 15C and 48SX though.

tom
K0TAR

70. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 01:55:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pGtne.112$O47.3817617@news.sisna.com>
Source record: 76039

Hal:

Ok, but that was not pointed towards you... just a general, "Aye!" for
the smith chart... I can't imagine every ham without one on the wall
they just look kewl too, with the world map--and I am quite serious
about that... ... many visitors to a station appreciate it if you
generate a bit of atmosphere for 'em.... <nod-and-a-wink>

Regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:iqsne.42643$6k7.2568@bignews4.bellsouth.net...
>I agree - like I said - I have nothing but respect for those who figure
>them
> out.
>
>

71. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 02:17:48 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <k%tne.116$kE7.3960973@news.sisna.com>
Source record: 76038

Russ:

A good disassembler on a fast computer can rip through structured binary code at hundreds, maybe thousands of lines a minute in a best case scenario... generating readable assembly instructions which can easily be converted into any syntax you would like... (course you gotta start figuring out what "varible1" and "variable2" represent in the real world--teenagers seem gifted to this)

... get Intel's "Big Book" on the processor and learn to use the tricks to break this within the source code and disassembly ends up a mess... a really good in-house optimizing compiler can be used to obfuscate code a bit too... (production compilers which been "cracked" can actually be used to aid in the disassembly, telling exactly how they built the code)

...in the end, the more structured the better the disassembler can "guess" the code and spit out source a 15 year old teenager can eat up... sometimes there is little need to worry about such, and sometimes you just don't have a choice...

... then there are those who have never even heard of such things, one real user of all these tricks and more is M$ itself... IBM has been another... and if you really want to make your head spin, take a look at the compiler Intel sells--those boys know all the tricks... the compiler ain't cheap, and its code has NEVER been cracked (not fully understood in its operations)... been around for years, scarce due to the fact it holds the hackers at bay (they don't have a bunch of cracked copies they can use)... now Intel knows how to obfuscate!

... now is the time the pin head fairy dancers come out to play...

Warmest regards,
John

"Russ" <carlzomer@hotmail.com> wrote in message
news:v7ns91h70caggmjpok8r9mnq21o0pescdg@4ax.com...
> On Tue, 31 May 2005 22:41:57 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Richard:
>>
>>Don't get so upset OM...
>>... of course, I can't toss as much BS as you are accustomed to...
>>wasn't it a 15 year old boy in the Netherlands, somewhere, which
>>cracked
>>the encryption on DVD movies? After some super team of "structured

>>programmers" and "goto-less coders" sold the movie industry the idea
>>it
>>was safe to release their product in digital form? Un-breakable
>>encryption they claimed--wasn't it?
>>
>>Hey, aren't you from that industry--or did I get that wrong? <grin>
>>
>>Well, probably just a fluke--it'll probably work next time...
>>
>>Warmest regards,
>>Brett AKA "Big Bad John"
>>
>>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>>news:e5hq91dabupnpb96hat5aaafgleod075ei@4ax.com...
>>> On Tue, 31 May 2005 18:27:58 -0700, "John Smith"
>>> <assemblywizard@gmail.com> wrote:
>>>
>>>>point being, I answer to a boss
>>>
>>> Hi Brett,
>>>
>>> It isn't your boss writing this guff we read. Save it, I read
>>> enough
>>> of this kind of explanation from Capitol Hill.
>>>
>>> 73's
>>> Richard Clark, KB7QHC
>>
>
> A poor algorithm and bad math can be implemented anyway you like,
> strutured or kludge and it will be broken. Of course, it will be
> easier to see what went wrong with the structured code. A good crypto
> system can be done by hand and be un-crackable or DES can be done as
> elegantly as is humanly possible and we all know what became of DES.
>
> Russ, who has probably written as much code as anyone out there

72. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 02:19:39 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1117678779.184261.94230@g44g2000cwa.googlegroups.com>
Source record: 76036

As others have said, yes, you can run two parallel lines. An easy way to think about the impedance: assume the lines are independent, and each has a matched load equal to Zo. Parallel them, and the load is Zo/2. Since a (uniform) line with matched load presents a Zo load to the source, the source with two such parallel lines will see a Zo/2 load.

BUT...BEWARE! What if the two lines are not equal electrical lengths? The results may surprise you. Details are left as an exercise for the reader. You can use standard transmission line equations, or use a program like RFSim99, to see what happens. Try, for example, a couple of lengths of lossless 100 ohm line with v.f. = .66, one of length = 100 feet and one of length = 101 feet. (I'm curious what others get for results...)

Cheers,
Tom

73. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 02:25:25 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <p6une.7366$vK5.6583@trnddc03>
Source record: 76037

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:D_rne.42637$6k7.25579@bignews4.bellsouth.net...
>> Hal
>>
>> It surprises me to read that you consider the Smith Chart difficult to
>> use. I'd bet that you could figure out how to use one to your benefit
>> within 20 minutes of asking questions of someone who uses them.
>>
>> Jerry
>
> Jerry,
> You're probably right. I could probably lean how in an afternoon.
> I sat down with one I printed out once, and thought I had it figured out.
> Then when I needed to use it again, I would need to be retrained.
> I remember how to use an MFJ259 from use to use, though. :-)
>
> I just don't have the patience - it just doesn't grab my attention like a
> gizmo does.

Hal

First off -- I realize that you are eperienced enough with antenna
analysis to know what is needed for matching them. And, if you did want to
use a Smith Chart, you'd have done it by now. I wont embarrass myself by
telling you anything I know about them. But, they sure can help identify
what kind of impedance is needed for a matching network.
Any impedance with a real resistive value can be plotted on the chart.
Then, its location immediately identifies what reactance will move the
unmatched impedance toward a matched location. I think you already knew
that. I also think you could teach me how to look at matching devices from
a more practical perspective.

Jerry

74. Want RG-11 or similar 75 ohm coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 02:30:15 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <Xaune.11644$uR4.206@newsread2.news.atl.earthlink.net>
Source record: 76040
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna

150 ft or more foam dielectric.
Something like 1/2 inch CATV would be ok also.

Doug N4IJ

75. Handheld GMRS/FRS radio antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 02:49:33 UTC
From: Warren <nospam@nospam.com>
Message-ID: <Htune.27839$_r1.849933@news20.bellglobal.com>
Source record: 76042

Hi everyone,

This sure seems like the group I've been looking for.

I've been researching GMRS/FRS handheld radios and have been a little disappointed in the "bubble-pack" radios that are commonly available for this radio band. The first thing I learned about was how ridiculous the manufacturer's power ratings and claimed reception distances were. I've decided to ignore the marketing & sales hype and just try to understand the basic physics of radio.

The one thing I think I've learned is that three most important components of a radio are the antenna, the antenna and the antenna. Most consumer GMRS/FRS radios come with a three inch or less antenna but I've seen some with a 1/4 wave antenna. My understanding is that FRS antennas can not exceed the gain of a 1/2 wave dipole and they can not be interchangeable, so you have to make the correct choice when you buy the radio. I have some basic understanding of the general theory of antennas, and someone suggested to me that a 1/4 wave antenna could suffer a 2dB signal loss compared to a 1/2 wave antenna. I'm interested in learning the additional dB loss in going from a 1/4 wave to a 2-3" "bubble-pack" antenna.

I guess where I'm coming from is that I'm wondering if, all other things being equal, can I realistically get equal or better reception with a pair of 0.5 watt ERP radios with a 1/4 wave antenna versus a 1-2 watt ERP radio with 2-3" antenna. The advantage of broadcasting with only 1/2 watt is very desirable from a battery life point of view. I believe increasing the power at the antenna from 1/2 watt to 1 watt or 2 watt gives me a 3 to 6 dB increase in signal strength, respectively. If the 1/4 wave antenna on the 1/2 watt radio has a 3dB or better gain on both transmit & receive units, due to better antenna design, I've achieved the same radio performance with longer battery life, all other things being equal. I guess I'm asking if there is any information that can help quantify the differences in the two types of antenna design?

76. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 02:51:41 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2vune.127$zU7.4181155@news.sisna.com>
Source record: 76041

Fabian:

Frankly, roger beeps annoy me... but still, I told him everything I
know, I run when I hear a roger beep!
<running-receding-footsteps-echoing-down-a-long-hall>

Warmest regards,
John

"Fabian Kurz" <usenet@fkurz.net> wrote in message
news:3g73lrFaotnpU3@news.dfncis.de...
> John Smith <assemblywizard@gmail.com> wrote:
>> Roger beeps are considered VERY bad behavior when used on ham bands.
>> Indeed, the only place I have ever seen them used is by truck drivers
>> on
>> the CB band.
>
> Roger beeps are actually used a lot on VHF SSB here in EU,
> and they nicely show what an inefficient mode SSB is. Hardly
> a VHF contest goes by, when I do NOT hear a station in SSB
> calling me, where everything I can clearly copy is the
> rogerbeep ;)
>
> 73 & CW4ever,
> --
> Fabian Kurz, DJ1YFK * Dresden, Germany * http://fkurz.net/

77. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 03:43:07 UTC
From: KU2S <ku2s@arrl.net>
Message-ID: <930t915ufk8v09sb9itocl7er72j811leb@4ax.com>
Source record: 76043

On Wed, 01 Jun 2005 01:14:55 -0400, Buck <iam@this.site> wrote:

>On Tue, 31 May 2005 17:52:10 -0400, C. J. Clegg
><answer.to.newsgroup@nospam.com> wrote:
>
>>
>>I have an IC-706 mounted on my Honda Gold Wing motorcycle. The
>>motorcycle has a dealer-installed CB radio with the CB antenna mounted
>>in back on the left side of the trunk. I have a 7-foot loaded
>>vertical for 40 meters mounted to the rear crash bar, only about a
>>foot to a foot and a half from the CB antenna.
>>
>>My question is, if I transmit on 40 meters SSB at full power
>>(nominally 100 watts, actually more like about 70 watts or so), am I
>>likely to damage the front end of the CB radio? Will it matter if the
>>CB radio is turned on or off?
>>
>>I could crank the power on the IC-706 back to as little as 10 watts
>>but it's going to be hard enough to raise any QSOs with the full 100
>>watts of power.
>>
>>On the other hand, the motorcycle CB is big bucks to replace and I'd
>>be just as happy not to damage it...
>>
>>Thanks...
>If the CB is off, you are likely not to have problems. If it is on,
>it is possible. I don't know how likely, tho, as the quality of the
>front end may make all the difference.

Personally, at 70 watts PEP on a motocycle, I'd be more concerned with
RF damage to the operator than I would be damage to any other
electronics...
Raymond Sirois KU2S
SysOp: The Lost Chord BBS
607-733-5745
telnet://thelostchord.dns2go.com:6000

78. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 03:45:16 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <ghvne.20965$HI.12105@edtnps84>
Source record: 76044

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429dc3d1$1_2@spool9-west.superfeed.net...
> I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
> information on my web page.
> --
> 73, Cecil http://www.qsl.net/w5dxp/smith.htm
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
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> =----

There is an excellent limited, and free, Smith Chart program at this site:
http://www.janson-soft.de/seminare/dh7uaf/

Scroll down and look for the for the following, download (308 kB), and
unzip. The link below may also work from this posting.

Smith V1.91 (Smith.exe), Smith-Diagramm-Programm (Download hier):
Demo-Version der FH Bern f�r Win (bis zu 5 Bauteile, L, R, C, Trafo, Stubs
und Trafo-Leitungen mit verschiedenen Wellenwiderst�nden, kein.

A few moments playing with the program should reveal the simplicity and
power of the Smith Chart. The program was developed at the University of
Applied Science, Berne.

73,

Frank

79. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 04:10:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429e879e$1_1@spool9-west.superfeed.net>
Source record: 76045

Richard Clark wrote:
> ... have the only key and then destroy it immediately after ONE use.

Years ago, experiments were carried out with chaotic keys.
Wonder what happened to that notion?
--
73, Cecil http://www.qsl.net/w5dxp

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80. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 04:15:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429e88d3$1_1@spool9-west.superfeed.net>
Source record: 76046

Jerry Martes wrote:
> It surprises me to read that you consider the Smith Chart difficult to
> use. I'd bet that you could figure out how to use one to your benefit
> within 20 minutes of asking questions of someone who uses them.

The Smith Chart is relatively easy to learn in steps. First step
is to learn how to normalize impedances and plot them on the
Smith Chart. The 1.0 in the center of the chart is the normalized
Z0 of the feedline.
--
73, Cecil http://www.qsl.net/w5dxp

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81. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 04:20:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429e89e8$1_1@spool9-west.superfeed.net>
Source record: 76047

John Smith wrote:
> I should point out, everyone should at least know about a smith and have
> used it... kinda gives you a "feel" for the way all the variables work
> together... it is a good thing...

For me, the biggest advantage of the Smith Chart is that I can
carry it around in my head. It is a graphical math model of
a transmission line. A picture is worth a thousand calculators.
--
73, Cecil http://www.qsl.net/w5dxp

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82. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 04:30:51 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <0Yvne.143$Gc.4584471@news.sisna.com>
Source record: 76048

Cecil:

10^100000000 bit encryption, I can see it on the horizon now... <grin>

How are they ever going to allow those wonderfully encrypted DVD's to be played--without having to include a decryption algorithm in each player? And, how are they ever going to be able to stop a blackhat hacker from downloading the code from the hardware and cracking it?

Perhaps a system where if you open the player there is a little suicide bomber in there--and he throws the switch?

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429e879e$1_1@spool9-west.superfeed.net...
> Richard Clark wrote:
>> ... have the only key and then destroy it immediately after ONE use.
>
> Years ago, experiments were carried out with chaotic keys.
> Wonder what happened to that notion?
> --
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
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83. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 04:43:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <68wne.144$Ne.4639793@news.sisna.com>
Source record: 76049

Cecil:

I wasn't being cynical, and although I cannot "carry it in my head", it is good for the example chart, I agree, a picture is worth a thousand words--I was not poking fun... but hey, it does look kewl.... I am not above cheap tricks to impress my company... perhaps I admit my failing here to be poked fun at--but the first time I seen one--was pretty damn impressed!!! (still am actually)

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:429e89e8$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>> I should point out, everyone should at least know about a smith and
>> have used it... kinda gives you a "feel" for the way all the
>> variables work together... it is a good thing...
>
> For me, the biggest advantage of the Smith Chart is that I can
> carry it around in my head. It is a graphical math model of
> a transmission line. A picture is worth a thousand calculators.
> --
> 73, Cecil http://www.qsl.net/w5dxp
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> News==----
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84. Re: Epoxy & microwaves?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 05:07:51 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <Huwne.89670$w15.67842@tornado.tampabay.rr.com>
Source record: 76051
Cross-posted to: sci.electronics.basics,sci.electronics.design,sci.electronics.misc,sci.electronics.repair,alt.engineering.electrical,alt.plastic,rec.radio.amateur.antenna

Dave
It shouldn't be too complex to estimate the element length of an antenna partially supported in a dielectric.

An engineer at work was assembling a 900 Mhz reference dipole for me. He did a beautiful job supporting the elements with a hand sawed polyethylene yoke. All was great until he tuned it up. He could not find the resonance point where he expected it should have been. It resonated much lower than expected for the rod length. What I figured was that the portion of the dipoles which were mounted within the plastic yoke were influenced by the velocity factor of the polyethelene. I calculated the percentage of rod length so affected, versus the portion in freespace and surprisingly was able to pin down that the resonance was where it belonged for the mechanical length of the dipoles. We then trimmed the rods down and were satisfied with the resonance.

DaveC wrote:

>>>Panel antenna driven by 4 dipoles. Standoffs and epoxy between driven
>>>elements and reflector. Any absorbing material there, I think, will effect
>>>performance.
>>>
>>>
>
>
>
>>The first thing you have to worry about if there is any dielectric
>>other than air between elements is how it changes the optimum element
>>length and spacing, because of the change in the propagation speed of
>>light.
>>
>>
>
>I suspect that the solution gets quite complex. Is there some rule-of-thumb
>that can be used? Or possibly support the elements by the ends, minimizing
>the dielectric between the elements and reflector?
>
>Thanks,
>
>

--
Joe Leikhim K4SAT

"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time when he's only partially mad. And this is the time when he's going to throw his best parties.

85. Re: Epoxy & microwaves?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 05:23:41 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <xJwne.58920$VH2.26013@tornado.tampabay.rr.com>
Source record: 76050
Cross-posted to: sci.electronics.basics,sci.electronics.design,sci.electronics.misc,sci.electronics.repair,alt.engineering.electrical,alt.plastic,rec.radio.amateur.antenna

Dave
It shouldn't be too complex to estimate the element length of an antenna partially supported in a dielectric.

An engineer at work was assembling a 900 Mhz reference dipole for me. He did a beautiful job supporting the elements with a hand sawed polyethylene yoke. All was great until he tuned it up. He could not find the resonance point where he expected it should have been. It resonated much lower than expected for the rod length. What I figured was that the portion of the dipoles which were mounted within the plastic yoke were influenced by the velocity factor of the polyethelene. I calculated the percentage of rod length so affected, versus the portion in freespace and surprisingly was able to pin down that the resonance was where it belonged for the mechanical length of the dipoles. We then trimmed the rods down and were satisfied with the resonance.

DaveC wrote:

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>>>elements and reflector. Any absorbing material there, I think, will effect
>>>performance.
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>>>
>
>
>
>>The first thing you have to worry about if there is any dielectric
>>other than air between elements is how it changes the optimum element
>>length and spacing, because of the change in the propagation speed of
>>light.
>>
>>
>
>I suspect that the solution gets quite complex. Is there some rule-of-thumb
>that can be used? Or possibly support the elements by the ends, minimizing
>the dielectric between the elements and reflector?
>
>Thanks,
>
>

--
Joe Leikhim K4SAT

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The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time when he's only partially mad. And this is the time when he's going to throw his best parties.

86. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 05:33:49 UTC
From: Randy <theplanters95@aol.com>
Message-ID: <1117690429.916477.190610@f14g2000cwb.googlegroups.com>
Source record: 76052
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil,

Aramaic is a not Arabic. If you read the Quran, you will see that
allah is very limited as he only speaks Arabic. Of course English
translations are perverted and not as accurate as the Arabic Quran.

Jesus lived many hundred of years before Mohommad twisted and invented
Allah. And don't give me the story that Allah is Arabic for god. In
context, Allah is a personal name, not a general idea.

The Christian God is not Allah, and Jesus never prayerd to Allah.

Enough said,
Randy

Cecil Moore wrote:
> Dori A Schmetterling wrote:
> > Language of the people was Aramaic, actually...
>
> Which means that Jesus prayed to Allah.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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87. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 05:57:46 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <xdxne.2806$K66.547@fe02.lga>
Source record: 76053

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429e88d3$1_1@spool9-west.superfeed.net...

> The Smith Chart is relatively easy to learn in steps. First step
> is to learn how to normalize impedances and plot them on the
> Smith Chart. The 1.0 in the center of the chart is the normalized
> Z0 of the feedline.
> --
> 73, Cecil http://www.qsl.net/w5dxp

The mention of the Smith Chart and slide rules in the same breath brings back a lot of memories. They put meat and potatoes on the table for me and my family for many years. I was fortunate to be in the right place at the right time at the beginning of space exploration, during which time I had the rare priviledge of developing antenna systems for several different spacecraft while working at the antenna lab of the RCA Laboratories, and at RCA's Space Center, the RCA Astro-Electronic Division until I retired in 1980.

The most challenging assignment was developing the antennas that flew on the World's first weather satellite, TIROS 1, and several of its successors. The challenge involved developing a transmitting antenna array that would radiate right-hand circular polarization from two transmitters and left hand circular from two other transmitters. The four VHF transmitters operated simultaneously on four separate frequencies in two non-harmonically related bands.

The real challenge was in developing a matching circuit to couple the four transmitters to the single antenna comprised of two crossed dipoles. The circuit was constructed entirely of printed circuit stripline transmission line.

The reason for telling you this is that all the calculations during the development of both the radiators and the matching circuit were performed with only a slide rule and the Smith Chart. There were no calculators or computers available at that time. Without the Smith Chart the impedance calculations would have been so tedious that the project would have failed due to the lack of time to complete them.

My Dad gave me a simple wooden slide rule when I was thirteen and taking advanced algebra. Then in my senior class, beginning at fifteen, he gave me an ivory Kueffel and Esser trig rule. While teaching electronic students in the Navy during WW2, I acquired another K and E rule, this time a log log decitrig. Then while developing antennas at RCA in the 50s and 60s I acquired another log log decitrig, this time an aluminum Picket and Eckel. I still have all of these rules in my 'antique calculator' museum.

My first calculator was an HP-35, which replaced the slide rules--couldn't believe I was going from three significant figure precision to nine and greater!

I later acquired an HP-45, then a 55, followed by a 34-C, 15-C, and a 42-S. I still have batteries fully charged in the last four calculators ready for use. And even though I have several Smith Chart programs, some of which appear in Chapter 15 of Reflections, I still use the slide-rule version of the Smith Chart in solving certain impedance matching problems.

That's the story of my love affair with slide rules and the Smith Chart.

Walt, W2DU

PS--Chapters 10 and 11 in Reflections present a primer in learning how to understand and use the Smith Chart.

88. Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 05:58:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <7exne.148$vr.5300382@news.sisna.com>
Source record: 76059

From working with the gamma match in real life--I have noticed it favors launching the signal from the side of the DE which has the gamma.

Now in playing with the gamma formulas, I wondered...
What if the gamma rod is replaced with a "gamma tube", same set up as the normal gamma, except the the rod is now a tube surrounding the element which is being fed? Something of a "concentric match", I am guessing the formula to compute concentric line Zo would come into play here, or a near equiv... purpose would be to get rid of the favored increase in signal from the side containing the gamma...

I know someone is going to suggest EZNEC--however, I am not good at drawing a tube with it!!!!

Warmest regards,
John
--
Watching the cutting edge of yesterday replay--in virtual reality, right before my eyes--in real time!
Thirty year old technology--wasn't it amazing?

89. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 06:11:44 UTC
From: Buck <iam@this.site>
Message-ID: <st7t91hv8kpcvk4c4t9jgathngvj9c100a@4ax.com>
Source record: 76054

On Wed, 1 Jun 2005 14:33:26 -0700, "Joel Kolstad"
<JKolstad71HatesSpam@yahoo.com> wrote:

>
>He'd be breaking the letter of the law but -- assuming he dialed the 706 back
>to 5W -- not really the intent, IMO. I really can't imagine the FCC pursuing
>the issue. True story: I used to live next door to a guy with a linear amp on
>his CB, I called up the FCC field office, and they told me there wasn't
>anything they could do. Said they had official monitoring stations that, if
>they picked up the guy's transmission, they could go after him, but they just
>didn't have the resources to pursue complaints from people calling in
>violators. And, oh, did I want their free brochure on mitigating interference
>to my own electronics?
>
>:-(
>
>I bet a Goldwing CB is also closer to $1k than $150!
>
>---Joel Kolstad
>

YOu have me on the Goldwing CB price, I wouldn't have a clue about it,
but as for the law, I don't recall where it is, but there are FCC
enforcement records that you can read on the internet at their site,
or someone has them posted. I used to read them regularly. They are
filled with enforcement letters to CBers who are using modified rigs
that are non-type accepted or non-certified. They are often fined
$8000 or more and, if a ham, they are ordered to get rid of the rig,
modify it so it can't operate out of band and then cover it in some
form of epoxy so it can't be re-modified again. Loss of license is a
risk.

It may be that only one in a million gets the FCC ticket, but then the
lotto has much lower odds (1:10s of millions) yet someone hits the
jackpot almost every day. The FCC is getting enough complaints to
start going after truck-drivers so all it takes is for that motorcycle
to be in the enforcement area when the FCC is monitoring.

Each radio has it's own finger-print that the FCC can read. Many
times, they can tell the make and model by the signature before ever
seeing the rig. I would think that the most popular HF mobile rig
ever is recognized by the FCC.

As for the local enforcement officers having permission to enforce the
illegal CBs, I believe I remember that that bill was overturned. I
hope so and am glad if it was. I don't know many police that know the

difference between the CB and Ham radio. My goodness, they can't even tell the difference between a ham rig and a cell phone even when you hand them a copy of the law that tells them to leave radio operators alone.

--
73 for now
Buck
N4PGW

90. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 06:13:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Prxne.154$jE.5849222@news.sisna.com>
Source record: 76060
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Randy:

I still struggle with the question if my creator was a mud puddle or a being (I favor the "by intelligent design" thinking)... once I resolve that--I will work on getting his name straight... (or, if he is truly the inspiration for any of these books.) So, at least for now, I have my hands full...

Warmest regards,
John

"Randy" <theplanters95@aol.com> wrote in message news:1117690429.916477.190610@f14g2000cwb.googlegroups.com...
> Cecil,
>
> Aramaic is a not Arabic. If you read the Quran, you will see that
> allah is very limited as he only speaks Arabic. Of course English
> translations are perverted and not as accurate as the Arabic Quran.
>
> Jesus lived many hundred of years before Mohommad twisted and invented
> Allah. And don't give me the story that Allah is Arabic for god. In
> context, Allah is a personal name, not a general idea.
>
> The Christian God is not Allah, and Jesus never prayerd to Allah.
>
> Enough said,
> Randy
>
> Cecil Moore wrote:
>> Dori A Schmetterling wrote:
>> > Language of the people was Aramaic, actually...
>>
>> Which means that Jesus prayed to Allah.
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>

91. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 06:20:50 UTC
From: Buck <iam@this.site>
Message-ID: <tr8t91dl6qu33cmotii6kv8girscna43kv@4ax.com>
Source record: 76055

On Thu, 02 Jun 2005 00:54:30 GMT, "TJ" <tjtrucker@hotmail.com> wrote:

>The cost of a CB intigrated system radio on a Honda Goldwing is around $900
>US and it's made by Panisonic. As for the FCC nabbing a motorcyclist for
>operating his amateur radio on CB, well even if they could track him it's
>not worth the effort. AKA how many truckers are using a lot more than 5
>watts and you don't see many of them being targetted by the FCC. I know
>because I used my 706 on 11 meters when my Cobra went up in smoke on me on a
>trip to Arizona. And would you believe the state tropper in the Port of
>entry scale was more interested in my scanner than anything else. And then
>only till he found out I was a licenced amateur, then he wasn't interested
>at all. What he told me was that state law had no aurthority to do anything
>when it came to radios if I held an amateur radio licence. He said the last
>thing they want is the Feds breathing down on him for causing trouble to a
>licenced amateur radio operator, regardless if he's from Canada, USA or
>Mexico it's the same thing. But now watch yourself in the state of
>Washington, the FCC is hot and heavy in this state, I think it has a lot to
>do with the military bases on the Pacific Northwest.
>I had my 706 on my old GL1200 and it worked like a charm, mind you I didn't
>run full power, a motorcyle battery is no where near as hefty as a car or
>truck battery and my head is a little too close to the antenna to suite me.

Is it legal? No. Will he get caught? buy a lottery ticket, it may
stand a similar chance of hitting. I can't say what might happen that
he could get caught. People die of strange accidents every day and
crooks get caught even when they have the flawless plan. There is a
risk that he could get caught and the penalty would be in the
thousands of dollars. (or was the OP in canada?) Regardless, I
wouldn't recommend it. Raymond may have the better point... What is
his RF exposure?

I have to admit that this is one of the more benign suggestions for
using a rig out of band. I really suspect CB band is the safest place
to do this, but I really cringe when I hear someone say they want to
modify a rig so they can call the sheriff on his own frequency "in
case of life/death emergency." I read a lot of reports on those
too...

>You do know wher the term "hothead" came from.

no, actually, i never looked that one up.
>
>73.....ve7agw
>

--
73 for now
Buck
N4PGW

92. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 06:21:35 UTC
From: Buck <iam@this.site>
Message-ID: <na9t911unto8sntvvg5llqr00op7drh6jq@4ax.com>
Source record: 76056

On Thu, 02 Jun 2005 03:43:07 GMT, KU2S <ku2s@arrl.net> wrote:

>Personally, at 70 watts PEP on a motocycle, I'd be more concerned with
>RF damage to the operator than I would be damage to any other
>electronics...
>Raymond Sirois KU2S

Wouldn't that be closer to 100 w PEP? Icom 706.
--
73 for now
Buck
N4PGW

93. Re: Handheld GMRS/FRS radio antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 06:25:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8a6t91182bcf4b76fjo9nrd5tf9a4slrk5@4ax.com>
Source record: 76057

On Wed, 1 Jun 2005 22:49:33 -0400, "Warren" <nospam@nospam.com> wrote:

>The one thing I think I've learned is that three most important components
>of a radio are the antenna, the antenna and the antenna.

Hi Warren,

I suspect that if you've been lurking here long enough that, yes, you may come to that conclusion. Unfortunately, within the scope of alternatives you have considered, what you write above is simply not the answer. Yes, it is smacks of a time-honored aphorism drawn from business or real-estate (not much difference in this new investment bubble these days); but actually it is the old bottle and not the new wine that rules in this regard.

In other words it IS and has always BEEN - location, location, location.

>I believe increasing the power
>at the antenna from 1/2 watt to 1 watt or 2 watt gives me a 3 to 6 dB
>increase in signal strength, respectively. If the 1/4 wave antenna on the
>1/2 watt radio has a 3dB or better gain on both transmit & receive units,
>due to better antenna design, I've achieved the same radio performance with
>longer battery life, all other things being equal. I guess I'm asking if
>there is any information that can help quantify the differences in the two
>types of antenna design?

A perfectly reasonable question, but location will eclipse these gains you've researched - many times over. Height is always king of the mountain. The ability of one antenna to "see" another antenna trumps all aces, even if both antennas are crummy beyond compare.

Height is also far easier to obtain than the constrained gain you describe. Hike that antenna ten feet for 10dB gain, or try to limp along with 3 to 6dB with a huge investment in someone's "state of the art antenna design?" The numbers will forecast that easily.

How do you get this 10dB? Well, yes, that is more handwaving than guarantee when nothing has been said of the terrain, or perhaps the fact you live in the tallest apartment at the top of a hill. The same spin of the wheel dominates the best antenna money can buy too.

A simple rule at these wavelengths and typical power levels: The range of your antenna is measured in miles for the square root of double the height in feet of your antenna. If you have a hand held and you are standing outside (we will call that at 5 foot), then your range is 3 miles to the radio horizon. If someone has a similar hand

held (at 5 feet) your combined range (grazing the horizon) is roughly 6 miles. If they are 10 miles away, guess what? Better antennas might do the trick, but they are bucking the trend.

Now let's raise both those antennas, each to 16 feet (the peak of a roof of a ranch style house). Your range is 11 miles.

This is simplistic in the extreme, but as a basis of comparison, all antennas at this frequency share the same results of height advantage.

Now, is this a matter of gain or power? At these frequencies, not really as long as they are "in the clear" (that is, free of nearby obstructions and small mountains in that path). Ham radio communication with handhelds to the Space Shuttle is not a fantasy, and there we are talking about common antennas, and common powers, at uncommon distances (a hundred miles or more). Such is the advantage of that "in the clear" path.

Irrespective of your choice of antenna, the choice of path (if in fact you have a choice) will dominate results.

73's
Richard Clark, KB7QHC

94. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 06:32:00 UTC
From: Buck <iam@this.site>
Message-ID: <qr9t91dloo5d2nfvjeenn4qfg5h1no4q8d@4ax.com>
Source record: 76058

On Wed, 01 Jun 2005 09:15:05 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
>information on my web page.

I finally got to see the picture. Earlier, it loaded so slowly I only
got to see the top 10% after ten minutes or so.

If i read it correctly, you are saying that by adjusting the feedline
length, you have a 50 match at any band.

It sounds like this antenna and feed match....

http://www.qsl.net/w5dxp/notuner.htm

--
73 for now
Buck
N4PGW

95. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 08:39:59 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <pan.2005.06.02.08.28.52.58399@oceanfree.net>
Source record: 76061

On Tue, 31 May 2005 23:00:00 -0500, Asimov wrote:

> Hi,
>
> This is a hypothetical question, if one needs to send more power down a
> line than its capacity can 2 or more lines be paralleled?

The 4 wire transmission line is described in the
ARRL Electronics Data Book. And the ARRL
Antenna Handbook.

73, Ed. EI9GQ.

--
Remove 'X' to reply via e-mail.
Linux 2.6.11

96. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 08:51:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7mh9v$6bm$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 76062

I can honestly say I've never used a Smith Chart in anger in the whole
of my life.

Never had one in my possession for more than a minute just to inspect
it. Or by chance came across a condensed version in a book.

And I've worked on and with transmission lines from 0.1 Hz to 3000
MHz. At frequencies at which the Smith Chart is misleading and
useless.

I just didn't attend the same school as you lot.

It's habit forming like alcohol, tobacco and women. You can't think
straight without one in front of you. ;o)

But I do appreciate the love and respect you all have for it.

Reg.

97. Programming Languages, sort of.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 10:00:36 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <8NAne.16331$JX5.5074@tornado.ohiordc.rr.com>
Source record: 76063

For the initiated:

If you're wanting to dis-assemble Win-dos _executables_, make me a _reasonable_ offer on SOURCER v6.55 with BIOS Pre-Processor, and ASMtool v3.07, from V Communications, which I bought new in 1995.

SOURCER makes multiple passes through executabless and produces assembly-like listings (with optional comments: eg, interrupts, types of jumps), and ASMtool produces flow-charts from SOURCER results.

Why do this? Maintenance of undocumented code, virus research, solving compatibility problems ...

I dunno about "latest upgrades". The products do what is claimed for them, ie, dis-assemble Win-dos executables, and produce flow-charts.

Nisi? Okay, "Caveat emptor".

73, Dave, N3HE
Cincinnati OH

98. 50 DB of Seperation = ? Down From 100 W ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 10:07:13 UTC
From: Gary
Message-ID: <5qlt919skuu928kstqd3j93jg9u5a1pfbf@4ax.com>
Source record: 76064

I'm thinking of installing a coax switch (basically in reverse of it's normal configuration - two inputs one output) between two tuner's outputs. Both are run off of the same 100W transceiver that has two antenna outputs. That way I can switch between the two tuner's without having to switch coax connectors etc. The "MFJ" switch lists 50 DB of separation. According to my calculations (its been a long time since I've been in electronics class !) that would mean the unused port of the switch would see about ~ .0015 W applied to it's output?

I wouldn't think that low amount of power would harm the other tuner ?

Thanks in advance.

73 Gary

99. Re: Free Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 10:52:53 UTC
From: "carkenord@juno.com" <carkenord@juno.com>
Message-ID: <1117709573.097313.184930@z14g2000cwz.googlegroups.com>
Source record: 76065

Reg Edwards wrote:>
> Download program TUNEHALF from website below and become familiar with
> another tuner circuit which deals with vertical, inverted-L and
> sloping antennas.

Thank you, Reg. You create good, useful, friendly stuff.!

Lee KA0FPJ

100. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 11:11:06 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <a0qt91dj8i24nrt48pe9pta608mntckslq@4ax.com>
Source record: 76066

On Wed, 01 Jun 2005 18:27:16 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 02 Jun 2005 01:17:27 GMT, Russ <carlzomer@hotmail.com> wrote:
>
>>A good crypto system can be done by hand and be un-crackable
>
>Hi Russ,
>
>Schneier holds that only ONE cryptographic system is un-crackable: a
>one time pad - provided you (you meaning the pair in communication)
>have the only key and then destroy it immediately after ONE use.
>Every thing else succumbs to brute force if the secret's lifetime (its
>value over time) is long enough.
>
>Basically it boils down to cycles/cent, and the CSS lobby made their
>algorithm the cheapest crack on the market. Roll your own security
>and that's the consequences. Ultimately, security is no better than
>the last bozo to touch the code.
>
>Dan Brown's "The Digital Fortress" is a page-turner that moves on
>these very precepts. The classic by Clifford Stoll, "The Cuckoo's
>Egg" is an excellent detective story illustrating the perils in real
>(1980s era) life.
>
>73's
>Richard Clark, KB7QHC

Yep, the Vernam cipher is the one and only. Good crypto depends on
good key discipline and good message discipline (padding, no
stereotypical messages, etc)

Digital Fortress and Brown's other books are so full of bullshit that
I only read them to see how full of it he could get. Just like that
other "great" author, Steven King. King seems to get paid by the word
and his prose show it.

Russ - kf4wxd

101. Re: 50 DB of Seperation = ? Down From 100 W ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 11:43:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <XhCne.1234$Nc2.1137@newssvr31.news.prodigy.com>
Source record: 76067

Gary,
I wouldn't think it would bother the tuner either. But it also depends on what the tuner is connected to, as in antenna, which will also supply some voltage to the tuner...
'Doc

PS - Try it, see what happens.

102. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 12:19:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429efa40$1_1@spool9-west.superfeed.net>
Source record: 76068

Buck wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
>>information on my web page.
>
> I finally got to see the picture. Earlier, it loaded so slowly I only
> got to see the top 10% after ten minutes or so.

QSL.NET is notoriously slow. I'm going to get a new web page supplier
one of these days.

> If i read it correctly, you are saying that by adjusting the feedline
> length, you have a 50 match at any band.

Close - by adjusting the feedline length, I have between a 25+j0 ohm
and a 100+j0 ohm "match" on any HF ham band. Any purely resistive
impedance between 25 ohms and 100 ohms will yield a 50 ohm SWR less
than 2:1. Most transmitters are satisfied with an SWR of less than
2:1. Any 450 ohm SWR between 4.5:1 and 18:1 (in the green zone) will
yield a 50 ohm SWR less than 2:1 if the proper length of feedline is
chosen.

> It sounds like this antenna and feed match....

It is a tuned feeder that tunes the antenna system to resonance. To
get a 50 ohm SWR less than 2:1, the dipole needs to be 1/2 wavelength
on the lowest frequency of operation. That makes virtually all antenna
feedpoint impedances fall within the green target zone.

For instance, this feedline length adjustment will not work on a 102
ft. dipole (G5RV) used on 80m. The low R and high X causes the 450
ohm SWR to be higher than 18:1 so a 50 ohm SWR of 2:1 is impossible
without a tuner or network.

Here's the math:
450/18 = 25 ohms 50/25 = 2:1 SWR at current maximum point
450/4.5 = 100 ohms 100/50 = 2:1 SWR at current maximum point
--
73, Cecil http://www.qsl.net/w5dxp

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103. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 12:33:44 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <c3vt91d13kt8anvbp3v7kj0v05ulrhssh3@4ax.com>
Source record: 76069

On Thu, 02 Jun 2005 02:11:44 -0400, Buck <iam@this.site> wrote:

>
>Each radio has it's own finger-print that the FCC can read. Many
>times, they can tell the make and model by the signature before ever
>seeing the rig. I would think that the most popular HF mobile rig
>ever is recognized by the FCC.

Rig fingerprint? How does that work?

bob
k5qwg

104. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 12:42:12 UTC
From: Christopher O'Callaghan <d.ocallaghan@iolfree.ie>
Message-ID: <d7mus2$8nq$1@reader01.news.esat.net>
Source record: 76070

Hi,
I run a security buisness radio system.The majority of their radios are VHF Motorola Brands.The thing is that all of the current installed ones have a simultaneously multi tone bleep.In other words a number of beeps in one bleep.I know its confusing.

Chris

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:03ls91d7lspfk38r670g57eq9ie5dbo0vm@4ax.com...
> On Wed, 1 Jun 2005 23:49:08 +0100, "Christopher O'Callaghan"
> <d.ocallaghan@iolfree.ie> wrote:
>
>>Hello,
>>Where would i find a roger bleep which would consist of a number of
>>different tones in one bleep?I want to install it inside of a Motorola
>>GM350
>>for commercial use.
>>Any assistance is appreciated!
>>
>>All the best
>>Chris
>>
>>
>
> My Motorola Maxtrak beeps just as I key it to talk on the 800 mhz
> band. Does that qualify as a roger-bleep? It should be built into your
> Motorola, too.
>
> Just what kind of a bleep are you looking for? Talk about picky :-(
>
> bob
> k5qwg
>
>
>

105. Re: 50 DB of Seperation = ? Down From 100 W ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 12:57:27 UTC
From: chuck <chuck@nospam.net>
Message-ID: <429f021d$1_1@newsfeed.slurp.net>
Source record: 76071

Gary, wouldn't 50 db of attenuation reduce 100 watts to
exactly 0.001 watt?

Chuck

'Doc wrote:
> Gary,
> I wouldn't think it would bother the tuner either. But it also
> depends on what the tuner is connected to, as in antenna, which will
> also supply some voltage to the tuner...
> 'Doc
>
> PS - Try it, see what happens.

106. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 12:58:25 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <TnDne.5130$K66.3743@fe02.lga>
Source record: 76072

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d7mh9v$6bm$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> I can honestly say I've never used a Smith Chart in anger in the whole
> of my life.
>
> Never had one in my possession for more than a minute just to inspect
> it. Or by chance came across a condensed version in a book.
>
> And I've worked on and with transmission lines from 0.1 Hz to 3000
> MHz. At frequencies at which the Smith Chart is misleading and
> useless.
>
> I just didn't attend the same school as you lot.
>
> It's habit forming like alcohol, tobacco and women. You can't think
> straight without one in front of you. ;o)
>
> But I do appreciate the love and respect you all have for it.
> ----
> Reg.
>
Reg, you've aroused my curiosity on three points:

Why would you use 'Smith Chart' and 'anger' in the same sentence?

Why are there any frequencies where the Smith Chart is misleading and useless?
Which frequencies are they?

How can you say the Smith Chart is misleading and useless if you've never used
one, and never inspected one for more than a minute?

Walt, W2DU

107. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 13:05:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f04f7$1_2@spool9-west.superfeed.net>
Source record: 76073
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Randy wrote:
> The Christian God is not Allah, and Jesus never prayerd to Allah.

"Allah" is Aramaic for God. If Jesus prayed to God in Aramaic,
He prayed to Allah. Islam didn't exist when Jesus lived but
the word "Allah" certainly existed and was most likely in
Jesus' vocabulary.

Yahweh, Jehovah, and Allah are all the same
Father God-head entity. What the three camps have going is nothing
but sibling rivalry and I don't know whether God is laughing or
crying over those three gangs of idiots performing atrocities
in His name down through the ages. If one doesn't love Moslems,
one is not following Jesus' Christian teachings.
--
73, Cecil http://www.qsl.net/w5dxp

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108. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 13:06:15 UTC
From: JayePMorganSucks---KimWildeRocks <cjrogan2003@yahoo.com>
Message-ID: <1117716895.890399.280200@z14g2000cwz.googlegroups.com>
Source record: 76074
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

John Smith wrote:
> Randy:
>
> I still struggle with the question if my creator was a mud puddle or a
> being (I favor the "by intelligent design" thinking)... once I resolve
> that--I will work on getting his name straight... (or, if he is truly
> the inspiration for any of these books.) So, at least for now, I have
> my hands full...

If there's one thing God hates, it's '50s pop.

>
> Warmest regards,
> John
>
> "Randy" <theplanters95@aol.com> wrote in message
> news:1117690429.916477.190610@f14g2000cwb.googlegroups.com...
> > Cecil,
> >
> > Aramaic is a not Arabic. If you read the Quran, you will see that
> > allah is very limited as he only speaks Arabic. Of course English
> > translations are perverted and not as accurate as the Arabic Quran.
> >
> > Jesus lived many hundred of years before Mohommad twisted and invented
> > Allah. And don't give me the story that Allah is Arabic for god. In
> > context, Allah is a personal name, not a general idea.
> >
> > The Christian God is not Allah, and Jesus never prayerd to Allah.
> >
> > Enough said,
> > Randy
> >
> > Cecil Moore wrote:
> >> Dori A Schmetterling wrote:
> >> > Language of the people was Aramaic, actually...
> >>
> >> Which means that Jesus prayed to Allah.
> >> --
> >> 73, Cecil http://www.qsl.net/w5dxp
> >>
> >>
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> >

109. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 13:11:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f067c$1_1@spool9-west.superfeed.net>
Source record: 75975
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

John Smith wrote:
> I still struggle with the question if my creator was a mud puddle or a
> being ...

You were not created, John. You are like the developing
difference between a covered wagon and a Mack Truck.
--
73, Cecil http://www.qsl.net/w5dxp

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110. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 13:19:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f0834$1_1@spool9-west.superfeed.net>
Source record: 75976

Bob Miller wrote:
> Rig fingerprint? How does that work?

The signal emitted by each transmitter possesses
unique identifiable measurable characteristics.
--
73, Cecil http://www.qsl.net/w5dxp

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111. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 13:59:09 UTC
From: Dori A Schmetterling <ng@nospam.co.uk>
Message-ID: <429f10b1$0$289$cc9e4d1f@news-text.dial.pipex.com>
Source record: 75977
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

I am not aware of any atrocities committed by Jews in the name of Judaism in
the last 2000 years or so.

Whilst "those three gangs" might be closely related only the two big ones
claim theirs is the only way to salvation.

Nothing like claiming to have the only right way to pave the path to mass
crimes, e.g. the Crusades, and Stalin and Hitler in recent times.

DAS

For direct contact replace nospam with schmetterling

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429f04f7$1_2@spool9-west.superfeed.net...
[...]
>
> and I don't know whether God is laughing or
> crying over those three gangs of idiots performing atrocities
> in His name down through the ages.
[...]

112. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 14:17:38 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <6yEne.4$tr.1@fed1read03>
Source record: 75978

I agree with the comments already posted - tis bad form on the Ham bands --
but if you must be beeping - see URL:
http://www.bellscb.com/products/noisetoys/Roger_Beep.htm

Several more by using Google
73 es beep

--
CL -- I doubt, therefore I might be !

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:d7le21$p0q$1@reader01.news.esat.net...
> Hello,
> Where would i find a roger bleep which would consist of a number of
> different tones in one bleep?I want to install it inside of a Motorola
> GM350
> for commercial use.
> Any assistance is appreciated!
>
> All the best
> Chris
>
>
>

113. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 14:42:34 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <uVEne.8547$5u4.28396@nnrp1.uunet.ca>
Source record: 75979

On 01/06/2005 6:03 PM, John Smith wrote:
> clvrmnky:
>
> As I have already stated, I have given up religious wars over syntax...
> all that is left for me is to wonder why anyone would go on developing
> in it (COBOL--I understand maintaining old code for economic reasons)
>
Hmmm. I see a bit of a disconnect here. While we can compare and contrast syntactical structures of various languages forever, I'm not sure I agree at all that this is what I've been discussing.

The notion that syntax is the only difference between languages, especially in the context I've been giving, is not accurate at all. I certainly was not arguing syntax can be used to measure worthiness or success of a language.

My comments should be taken as musings on the nature of working coders, and the tools they need to succeed in different environments. Syntax is almost a non-issue when one takes this view.

I mean, COBOL has a pretty "interesting" syntax which has not stopped it from becoming a highly important part of most of our lives. Your bank, insurance company, investment company and telephone company all depend on COBOL, and will continue to do so for years to come. There will be no sudden change, especially not to Java or any C-like language.

The reasons for this have nothing to do with syntax, and everything to do with long-term stability and scalability in the mainframe environment.

> All which stands clear to me is that "C++" can do all of what the others
> might achieve, combined (barring assembly, which is the root of all)...
>
Any relatively complete language can do what any other language can do. However, the language is just one small part of the process. The environment in which the code is built, test, run and maintained is much more important that the language itself.

Be careful of using terms like "assembler" because this is often just another language, depending on the platform. The word "macro" in "macro assembler" means something! A CPU does not understand the text "JMP $A000" anymore than most humans.

Hand-crafted machine code via some kind of loader is pretty bare metal, but very few people do this kind of thing anymore. Even that requires a linker/loader on most modern CPUs.

> If you do not trust your programmers, you will limit them with their
> language--I guess I am luckily I still have a position where all which
> matters is our results and the department head is a strong programmer
> with acceptable backbone... the coding dept here is looked upon as a
> blackbox, you hand us specs, we give you working code... if all goes
> well, no complaints... no one second guess you...
>
Well, if your intention is to say that using COBOL somehow restricts
imagination and innovation, I have to respectfully disagree. A language
is just a tool, and the differences between the languages amount to no
more than flavours, in my experience.

That is, I don't see much of a gulf between coding in C, Java,
Objective-C or COBOL, other than language structure. One's approach to
solving problems changes, to be sure, but the notion is that one chooses
to solve problems using the most appropriate tools at their disposal.

Honestly, in the mainframe world even right now, the best tool for
solving the problems of mainframe environment is ReXX, JCL, PL/1 and
COBOL. z/OS shops support a fair amount of 390 assembler, but COBOL is
king for many reasons.

C is used on mainframes, but more as a "high-level" assembler for
drivers and services.

> I know COBOL programmers argue syntax as if their very lives depended on
> it (other languages too, to at least a degree), why has always been a
> complete mystery to me, in the end I just chalked it up to fear of
> "C"...
>
Do they? I hadn't noticed. There are "shop standards" and there are
finer points of where to place that final full-stop. However, the
stickler for syntax is the compiler itself. Most maintenance coders I
know have a healthy disrespect for all languages and often make wry
jokes (i.e., "gallows humour") at their own expense. Given that C is
available on mainframe I don't think anyone is really afraid of it.

Not unless you are concerned with buffer overruns, memory leaks and
stack-smashing in your mission critical application. Then you are right
to be very, very afraid of C or C++.

When you maintain a large body of code for many years, it is important
to pay attention to the details. If you check in changes around my shop
without paying attention to whitespace and bracing style, your changes
get rejected. This is generally considered a good thing.

> To try to give you a perspective of how this looks to me, the guy with
> cobol looks like he is standing there with a sliderule in hand--the "C"
> programmer as having a graphing scientific calculator in hand... both
> can get the job done--I just expect to obtain better results from one...
>
Yikes. This is sort of a naive way of looking at things, isn't it?
Expecting better results from a coder simply on the language choice is,

in my experience, the road to hell pave with all kinds of good intentions.

The difference between something like COBOL and C is not at all how you describe it. COBOL is not some kind of stone-age tech that has fallen behind. If anything, C has been pushed deeper into it's original niche of a tool to generate object code for operating systems (specifically, Unix-like operating systems.)

This is not a bad thing because this is one of the things C does best, but it does make C a bit like the slide-rule language of yore. I think of it as a compact and arcane tool that the original east-coast geeks invented as a "high-level assembler" on early time-sharing systems they were inventing at the same time.

Similarly, COBOL is an arcane and much larger toolset that, along with a whole spectrum of tools, was invented to solve another problem altogether. It just happens that this particular "niche" is much, much bigger than any of the other niches.

Certainly COBOL standards have been updated more recently than C; I suspect we may never see another ANSI/ISO standard for C again. Some might argue that this implies the language is "perfect"; that the C specification has reached a point where it represents the pinnacle of achievement for the language.

I think this horse is dead.

-- cm

114. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 14:46:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f1cad$1_1@spool9-west.superfeed.net>
Source record: 75980
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Dori A Schmetterling wrote:
> Nothing like claiming to have the only right way to pave the path to mass
> crimes, e.g. the Crusades, and Stalin and Hitler in recent times.

Deuteronomy 19:16,17
"But of the cities of these people, which the Lord thy God
doth give thee for an inheritance, thou shalt save alive
nothing that breatheth: But thou shalt utterly destroy
them; namely, the Hittites, and the Amorites, the Canaanites,
and the Perizzites, the Hivites, and the Jebusites; as the
Lord thy God hath commanded thee:"

Nothing like claiming to have the only right way to
pave the path to mass crimes. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

115. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:18:09 UTC
From: Steve Carras <gcarras@aol.com>
Message-ID: <1117725489.360323.295740@g47g2000cwa.googlegroups.com>
Source record: 75981
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

WHAT the FUCK relevance does THIS have to do with the topic or with the newsgroup's basis?/?????

116. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:22:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f2514$1_2@spool9-west.superfeed.net>
Source record: 75982
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Steve Carras wrote:
> WHAT the FUCK relevance does THIS have to do with the topic or with the
> newsgroup's basis?/?????

What newsgroup?
--
73, Cecil, http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

117. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:37:53 UTC
From: Keith Hopkins <susskins@visi.comblock>
Message-ID: <119ua3gdtvt8a09@corp.supernews.com>
Source record: 75984
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429f2514$1_2@spool9-west.superfeed.net...
> Steve Carras wrote:
> > WHAT the FUCK relevance does THIS have to do with the topic or with the
> > newsgroup's basis?/?????
>
> What newsgroup?

Crossposting rocks!

--
Keith Hopkins
susskins@visi.comblock (clear the block to reply)
Mentioned tangentially on ARN&R!

118. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:38:26 UTC
From: cavedweller <jawnwillie@hotmail.com>
Message-ID: <NJFne.3258$Tc.183@read2.cgocable.net>
Source record: 75983
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Steve Carras" <gcarras@aol.com> wrote in message
news:1117725489.360323.295740@g47g2000cwa.googlegroups.com...
> WHAT the FUCK relevance does THIS have to do with the topic or
with the
> newsgroup's basis?/?????
>
Must have come from the thread a couple weeks ago dealing with the
issue as to whether it was God or Weertman who created the hemi ;)

119. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:49:48 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-6EDEAC.08494702062005@news.newsguy.com>
Source record: 75986
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <429f1cad$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

> Deuteronomy 19:16,17
> "But of the cities of these people, which the Lord thy God
> doth give thee for an inheritance, thou shalt save alive
> nothing that breatheth: But thou shalt utterly destroy
> them; namely, the Hittites, and the Amorites, the Canaanites,
> and the Perizzites, the Hivites, and the Jebusites; as the
> Lord thy God hath commanded thee:"
>
> Nothing like claiming to have the only right way to
> pave the path to mass crimes. :-)

Just because it's in the bible doesn't make it the gospel truth.

Tony

"It ain't necessarily so, it ain't necessarily so,
de hings dat yo li'ble, to read in de bible, it
ain't necessarily so."

from Porgy and Bess
Gershwin, DuBose & Heyward

120. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:51:06 UTC
From: "Daniel J. Stern" <dastern@127.0.0.1>
Message-ID: <Pine.GSO.4.58.0506021150560.19804@alumni.engin.umich.edu>
Source record: 75985
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Thu, 2 Jun 2005, Steve Carras wrote:

> WHAT the FUCK relevance does THIS have to do with the topic or with the
> newsgroup's basis?/?????

Tiddly widdly widdly, powf powf powf.

121. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 15:53:08 UTC
From: "Daniel J. Stern" <dastern@127.0.0.1>
Message-ID: <Pine.GSO.4.58.0506021152090.19804@alumni.engin.umich.edu>
Source record: 75987
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Thu, 2 Jun 2005, Cecil Moore wrote:

> Yahweh, Jehovah, and Allah are all the same Father God-head entity. What
> the three camps have going is nothing but sibling rivalry and I don't
> know whether God is laughing or crying over those three gangs of idiots
> performing atrocities in His name down through the ages. If one doesn't
> love Moslems, one is not following Jesus' Christian teachings.

Off-topic though it be for all of the groups to which it's crossposted, I
just gotta say "Amen".

122. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 16:50:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6jcu911jhqt3mbovamfkgldgjbd2ch80vm@4ax.com>
Source record: 75989

On Thu, 2 Jun 2005 08:58:25 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Why would you use 'Smith Chart' and 'anger' in the same sentence?

Hi Walt,

You've made the mistake of taking Reggie seriously for the wrong points - but as it was by his design that you do so, you can be forgiven. Walt, please note that all occurrences of "You" are meant to apply to the general reader. Those general readers may now turn their attention aside as I diverge into meaning, a dark arena few enter fully prepared to emerge from.

As much as he rails about my "Shakespearian" language - style, nothing else; his own - style that is - is as a Primitive. For many who have little appreciation or training in the arts (writing being one of them), being labeled a Primitive is not demeaning, it is merely descriptive. As I offhandedly pointed out in another post, mine is a Norman style to his Anglo-Saxon. The difference is not intelligence, but persuasion. In other contexts, like religion, one might use the word fundamentalist; hence the allusion drawn in the sentence you responded to that ties together two disparate worlds as though the association were an ethical choice. Reg could have as easily compared varieties of wine to a Smith Chart - a gustatorial choice, but still a primitive or fundamental balance. (Myself, to extend the metaphor of religion, I would offer catholic choices.)

For either of us, if you simply divorce the style, content will emerge, and I promise you find nothing to argue with. Unless arguing is your only interest in posting, that is. We (Reg and I), each in our own way, go rather the long way around the barn to say something simple. I for one (and Reg by example, so I won't speak directly to his motivation) are not here to simply litter facts across the board. No you all have to suffer understanding too (as too many of you already had the facts available before you asked any question).

So as an exercise, when you strip away style, what is left is:
>> But I do appreciate the love and respect you all have for it.

73's
Richard Clark, KB7QHC

123. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 16:50:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <tNGne.179$Hy6.7877735@news.sisna.com>
Source record: 75988

clvrmnky:
Real processor instructions are numbers, binary, they can be visualized in one and zeros, but much easier on the hex, 16 base, system.... of course assembly language has a syntax... but with its syntax, for the most part, one single instruction translates down to one or two processor instruction(s) (number(s))(and there are even exceptions to this--macro processors for example)--in a high level language one instruction can translate to hundreds if not thousands of instructions on the processor level.

Well, arguing cobol when technical uses are intended is moot. You would need an assembly language programmer to even begin--the language simply does not have the constructs to be used effectively and would need to be created.
Except for my first entry into the field, I have always avoided business related programming (cobol/basic--so I am not well voiced to argue bank coding) like the plague (my avoidance is NOT always successful even today.) Writing the interfaces to hardware (drivers) has always interested me the most--but I do diverse projects and always there is the boring maintenance and adjustments for cracked code which hackers have caught on to (this can get interesting.) However, where I presently find employment, ALL programs are in "C". From our in-house--marketing, sales, business end--right down to the drivers.

Back in 1995 there was a battle here to drop cobol and standardize all our stuff around "C", the older cobol'ers won out--then in 2000 a lot of our business code was contracted out and we ended up with no in-house cobol ONLY programmers (right to the bitter end when they lost their jobs, they argued for cobol!!!--they should have popped back to a few classes and picked up "C":)... luckily, shortly after this time, we were able to argue we should center all our code on "C" and not allow outside programmers to be aware of the functioning of our code (just then, as luck would have it, virus's, trojans, etc helped make our point for us), this allowed us, in-house, to translate the cobol to "C" and we now maintain all our code in-house again--kinda luckily for guys like me which still need a job.... (the department head here is as crafty as a wizened old fox)

I would hate for a guy over in India or China to be doing my work right now... and I keep my fingers crossed--it could easily just happen...

Warmest regards,
John

"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message news:uVEne.8547$5u4.28396@nnrp1.uunet.ca...

> On 01/06/2005 6:03 PM, John Smith wrote:
>> clvrmnky:
>>
>> As I have already stated, I have given up religious wars over
>> syntax...
>> all that is left for me is to wonder why anyone would go on
>> developing
>> in it (COBOL--I understand maintaining old code for economic reasons)
>>
> Hmmm. I see a bit of a disconnect here. While we can compare and
> contrast syntactical structures of various languages forever, I'm not
> sure I agree at all that this is what I've been discussing.
>
> The notion that syntax is the only difference between languages,
> especially in the context I've been giving, is not accurate at all. I
> certainly was not arguing syntax can be used to measure worthiness or
> success of a language.
>
> My comments should be taken as musings on the nature of working
> coders,
> and the tools they need to succeed in different environments. Syntax
> is
> almost a non-issue when one takes this view.
>
> I mean, COBOL has a pretty "interesting" syntax which has not stopped
> it
> from becoming a highly important part of most of our lives. Your
> bank,
> insurance company, investment company and telephone company all depend
> on COBOL, and will continue to do so for years to come. There will be
> no sudden change, especially not to Java or any C-like language.
>
> The reasons for this have nothing to do with syntax, and everything to
> do with long-term stability and scalability in the mainframe
> environment.
>
>> All which stands clear to me is that "C++" can do all of what the
>> others
>> might achieve, combined (barring assembly, which is the root of
>> all)...
>>
> Any relatively complete language can do what any other language can
> do.
> However, the language is just one small part of the process. The
> environment in which the code is built, test, run and maintained is
> much
> more important that the language itself.
>
> Be careful of using terms like "assembler" because this is often just
> another language, depending on the platform. The word "macro" in

> "macro
> assembler" means something! A CPU does not understand the text "JMP
> $A000" anymore than most humans.
>
> Hand-crafted machine code via some kind of loader is pretty bare
> metal,
> but very few people do this kind of thing anymore. Even that requires
> a
> linker/loader on most modern CPUs.
>
>> If you do not trust your programmers, you will limit them with their
>> language--I guess I am luckily I still have a position where all
>> which
>> matters is our results and the department head is a strong programmer
>> with acceptable backbone... the coding dept here is looked upon as a
>> blackbox, you hand us specs, we give you working code... if all goes
>> well, no complaints... no one second guess you...
>>
> Well, if your intention is to say that using COBOL somehow restricts
> imagination and innovation, I have to respectfully disagree. A
> language
> is just a tool, and the differences between the languages amount to no
> more than flavours, in my experience.
>
> That is, I don't see much of a gulf between coding in C, Java,
> Objective-C or COBOL, other than language structure. One's approach
> to
> solving problems changes, to be sure, but the notion is that one
> chooses
> to solve problems using the most appropriate tools at their disposal.
>
> Honestly, in the mainframe world even right now, the best tool for
> solving the problems of mainframe environment is ReXX, JCL, PL/1 and
> COBOL. z/OS shops support a fair amount of 390 assembler, but COBOL
> is
> king for many reasons.
>
> C is used on mainframes, but more as a "high-level" assembler for
> drivers and services.
>
>> I know COBOL programmers argue syntax as if their very lives depended
>> on
>> it (other languages too, to at least a degree), why has always been a
>> complete mystery to me, in the end I just chalked it up to fear of
>> "C"...
>>
> Do they? I hadn't noticed. There are "shop standards" and there are
> finer points of where to place that final full-stop. However, the
> stickler for syntax is the compiler itself. Most maintenance coders I
> know have a healthy disrespect for all languages and often make wry

> jokes (i.e., "gallows humour") at their own expense. Given that C is
> available on mainframe I don't think anyone is really afraid of it.
>
> Not unless you are concerned with buffer overruns, memory leaks and
> stack-smashing in your mission critical application. Then you are
> right
> to be very, very afraid of C or C++.
>
> When you maintain a large body of code for many years, it is important
> to pay attention to the details. If you check in changes around my
> shop
> without paying attention to whitespace and bracing style, your changes
> get rejected. This is generally considered a good thing.
>
>> To try to give you a perspective of how this looks to me, the guy
>> with
>> cobol looks like he is standing there with a sliderule in hand--the
>> "C"
>> programmer as having a graphing scientific calculator in hand... both
>> can get the job done--I just expect to obtain better results from
>> one...
>>
> Yikes. This is sort of a naive way of looking at things, isn't it?
> Expecting better results from a coder simply on the language choice
> is,
> in my experience, the road to hell pave with all kinds of good
> intentions.
>
> The difference between something like COBOL and C is not at all how
> you
> describe it. COBOL is not some kind of stone-age tech that has fallen
> behind. If anything, C has been pushed deeper into it's original
> niche
> of a tool to generate object code for operating systems (specifically,
> Unix-like operating systems.)
>
> This is not a bad thing because this is one of the things C does best,
> but it does make C a bit like the slide-rule language of yore. I
> think
> of it as a compact and arcane tool that the original east-coast geeks
> invented as a "high-level assembler" on early time-sharing systems
> they
> were inventing at the same time.
>
> Similarly, COBOL is an arcane and much larger toolset that, along with
> a
> whole spectrum of tools, was invented to solve another problem
> altogether. It just happens that this particular "niche" is much,
> much
> bigger than any of the other niches.

>
> Certainly COBOL standards have been updated more recently than C; I
> suspect we may never see another ANSI/ISO standard for C again. Some
> might argue that this implies the language is "perfect"; that the C
> specification has reached a point where it represents the pinnacle of
> achievement for the language.
>
> I think this horse is dead.
>
> -- cm

124. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 16:52:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g8eu91hsmo0tjqdsulc7vc577oisfgfvq2@4ax.com>
Source record: 75990

On Thu, 02 Jun 2005 11:11:06 GMT, Russ <carlzomer@hotmail.com> wrote:

>King seems to get paid by the word
>and his prose show it.

Hi Russ,

I would take a tenth penny on the dollar he made, and live a rich man.

73's
Richard Clark, KB7QHC

125. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 16:55:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <kSGne.180$tB6.7985188@news.sisna.com>
Source record: 75991

Walter:

I think I might be able to guess why---when I first attempted to use one--I tore it up and said some angry words (darn right nasty I suspect)... I was a bit slow catching on with the smith chart, I am sure you all were much more gifted and speedier... <grin>

Warmest regards,
John

"Walter Maxwell" <walt@w2du.com> wrote in message news:TnDne.5130$K66.3743@fe02.lga...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:d7mh9v$6bm$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>>
>> I can honestly say I've never used a Smith Chart in anger in the
>> whole
>> of my life.
>>
>> Never had one in my possession for more than a minute just to inspect
>> it. Or by chance came across a condensed version in a book.
>>
>> And I've worked on and with transmission lines from 0.1 Hz to 3000
>> MHz. At frequencies at which the Smith Chart is misleading and
>> useless.
>>
>> I just didn't attend the same school as you lot.
>>
>> It's habit forming like alcohol, tobacco and women. You can't think
>> straight without one in front of you. ;o)
>>
>> But I do appreciate the love and respect you all have for it.
>> ----
>> Reg.
>>
> Reg, you've aroused my curiosity on three points:
>
> Why would you use 'Smith Chart' and 'anger' in the same sentence?
>
> Why are there any frequencies where the Smith Chart is misleading and
> useless? Which frequencies are they?
>
> How can you say the Smith Chart is misleading and useless if you've
> never used one, and never inspected one for more than a minute?

>
> Walt, W2DU
>

126. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:13:28 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <pndu91debcfhlqiarlak367j9vn75tk0c4@4ax.com>
Source record: 75992

On 1 Jun 2005 19:19:39 -0700, "K7ITM" <k7itm@aol.com> wrote:

>As others have said, yes, you can run two parallel lines. An easy way
>to think about the impedance: assume the lines are independent, and
>each has a matched load equal to Zo. Parallel them, and the load is
>Zo/2. Since a (uniform) line with matched load presents a Zo load to
>the source, the source with two such parallel lines will see a Zo/2
>load.
>
>BUT...BEWARE! What if the two lines are not equal electrical lengths?
>The results may surprise you. Details are left as an exercise for the
>reader. You can use standard transmission line equations, or use a
>program like RFSim99, to see what happens. Try, for example, a couple
>of lengths of lossless 100 ohm line with v.f. = .66, one of length =
>100 feet and one of length = 101 feet. (I'm curious what others get
>for results...)

I guess this was too much work for anyone else [g].

There is a repeating pattern, but at the first frequency of ~3.2296
MHz the input Z --> infinity and the phase changes sign. It looks
like a parallel resonant circuit.

127. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:24:37 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <43gu911um6agms367r2amqkvbdopu2i655@4ax.com>
Source record: 75993

On Thu, 2 Jun 2005 13:42:12 +0100, "Christopher O'Callaghan"
<d.ocallaghan@iolfree.ie> wrote:

>Hi,
>I run a security buisness radio system.The majority of their radios are VHF
>Motorola Brands.The thing is that all of the current installed ones have a
>simultaneously multi tone bleep.In other words a number of beeps in one
>bleep.I know its confusing.
>
>Chris

Contact a Motorola dealer? Considering how proprietary their radio
designs are, you probably need to talk to them to get what you are
looking for.

Bob
k5qwg

>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:03ls91d7lspfk38r670g57eq9ie5dbo0vm@4ax.com...
>> On Wed, 1 Jun 2005 23:49:08 +0100, "Christopher O'Callaghan"
>> <d.ocallaghan@iolfree.ie> wrote:
>>
>>>Hello,
>>>Where would i find a roger bleep which would consist of a number of
>>>different tones in one bleep?I want to install it inside of a Motorola
>>>GM350
>>>for commercial use.
>>>Any assistance is appreciated!
>>>
>>>All the best
>>>Chris
>>>
>>>
>>
>> My Motorola Maxtrak beeps just as I key it to talk on the 800 mhz
>> band. Does that qualify as a roger-bleep? It should be built into your
>> Motorola, too.
>>
>> Just what kind of a bleep are you looking for? Talk about picky :-(
>>
>> bob
>> k5qwg
>>
>>

>>
>

128. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:33:47 UTC
From: Dori A Schmetterling <ng@nospam.co.uk>
Message-ID: <429f4317$0$305$cc9e4d1f@news-text.dial.pipex.com>
Source record: 75994
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

I chose my words carefully....

You chopped out the relevant bit: "in the last 2000 years or so."

The bible ends long before that.

DAS

For direct contact replace nospam with schmetterling

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429f1cad$1_1@spool9-west.superfeed.net...
> Dori A Schmetterling wrote:
>> Nothing like claiming to have the only right way to pave the path to mass
>> crimes, e.g. the Crusades, and Stalin and Hitler in recent times.
>
> Deuteronomy 19:16,17
> "But of the cities of these people, which the Lord thy God
> doth give thee for an inheritance, thou shalt save alive
> nothing that breatheth: But thou shalt utterly destroy
> them; namely, the Hittites, and the Amorites, the Canaanites,
> and the Perizzites, the Hivites, and the Jebusites; as the
> Lord thy God hath commanded thee:"
>
> Nothing like claiming to have the only right way to
> pave the path to mass crimes. :-)
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

129. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:37:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ltHne.181$nK6.8287324@news.sisna.com>
Source record: 76002
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil:

Actually those are kind words, my sons think I came from the age before
the wheel was developed... <frown>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429f067c$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>> I still struggle with the question if my creator was a mud puddle or
>> a being ...
>
> You were not created, John. You are like the developing
> difference between a covered wagon and a Mack Truck.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

130. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:39:30 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qvHne.182$qF6.8131698@news.sisna.com>
Source record: 76006
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil:

When religious discussions get too intense, I run...
<receding-running-footsteps-down-a-long-dark-hallway>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429f1cad$1_1@spool9-west.superfeed.net...
> Dori A Schmetterling wrote:
>> Nothing like claiming to have the only right way to pave the path to
>> mass crimes, e.g. the Crusades, and Stalin and Hitler in recent
>> times.
>
> Deuteronomy 19:16,17
> "But of the cities of these people, which the Lord thy God
> doth give thee for an inheritance, thou shalt save alive
> nothing that breatheth: But thou shalt utterly destroy
> them; namely, the Hittites, and the Amorites, the Canaanites,
> and the Perizzites, the Hivites, and the Jebusites; as the
> Lord thy God hath commanded thee:"
>
> Nothing like claiming to have the only right way to
> pave the path to mass crimes. :-)
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

131. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:54:07 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1117734847.066468.304120@f14g2000cwb.googlegroups.com>
Source record: 75995

Caveat Lector wrote:
> I agree with the comments already posted - tis bad form on the Ham bands --
> but if you must be beeping - see URL:
> http://www.bellscb.com/products/noisetoys/Roger_Beep.htm
>
> Several more by using Google
> 73 es beep

About 1973 I was tuning around 7.4 Mhz in the wee hours and heard a bunch of very strong strong SSB stations yakking amongst themselves ham style. They didn't identify and they didn't use personal names, they just chatted at each other about anything and everything. Every time one of 'em dropped the mic button there was a sharp "click" instead of a traditional roger beep. I listened for maybe 15 minutes and decided I'd wandered into some freebanders and dialed the FCC monitoring facility in Laural. The FCC op tuned the freq while we were still connected. After he listened for a few seconds he told me "That's a U.S. Navy Atlantic Fleet shore station net, they babble for hours somewhere around that frequency every night."

Oops.

click.

> --
> CL -- I doubt, therefore I might be !

w3rv

132. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:54:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f48c8$1_1@spool9-west.superfeed.net>
Source record: 75996
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Dori A Schmetterling wrote:
> You chopped out the relevant bit: "in the last 2000 years or so."

The entire tribes of innocent men, women, and children
who were slaughtered 3000 years ago thought that it
was pretty relevant.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

133. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:58:50 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-353A09.10583502062005@news.newsguy.com>
Source record: 75999
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <429f48c8$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

> The entire tribes of innocent men, women, and children
> who were slaughtered 3000 years ago thought that it
> was pretty relevant.

If it hadn't happened, they still might be with us today.

Tony

134. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 17:59:17 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <VNHne.8603$5u4.28578@nnrp1.uunet.ca>
Source record: 75997

On 02/06/2005 12:50 PM, John Smith wrote:
> clvrmnky:
> Real processor instructions are numbers, binary, they can be visualized
> in one and zeros, but much easier on the hex, 16 base, system.... of
> course assembly language has a syntax... but with its syntax, for the
> most part, one single instruction translates down to one or two
> processor instruction(s) (number(s))(and there are even exceptions to
> this--macro processors for example)--in a high level language one
> instruction can translate to hundreds if not thousands of instructions
> on the processor level.
>
Well, real processor instructions are microcode, or (at some point)
fields of electrons doing little controlled dances across the gates of
semiconductors. We aren't really talking about binary values anymore
because even this is an abstraction. It's not like anyone uses a keypad
and/or mechanical switches to load values into a register anymore.

However, assemblers were, and still or to some extent, seen as
high-level abstractions to facilitate code maintenance and readability.
This, of course, is why we have such a thing as computer languages.
Most of the time we don't care if the macros we see in a text file
correspond directly with a particular instruction.

Heck, for application programmers the further one gets away from
thinking about "instructions", the better!

> Well, arguing cobol when technical uses are intended is moot. You would
> need an assembly language programmer to even begin--the language simply
> does not have the constructs to be used effectively and would need to be
> created.
I'm not sure what you mean. While it may be handy to think of
machine-coders as the "starting point" for all things, this is not
really how it works. Most high-level languages are written in other
high-level languages.

Of course, many people take issue with the whole high vs. low level
approach anyway. Languages like C and Forth are certainly low-level if
you look at them the right way. This is one of their strengths.

However, being closer to the metal is not always better. The whole
notion of computer languages is to find a way to describe a solution to
a problem space. There are some spaces

> Except for my first entry into the field, I have always avoided business
> related programming (cobol/basic--so I am not well voiced to argue bank
> coding) like the plague (my avoidance is NOT always successful even

> today.) Writing the interfaces to hardware (drivers) has always
> interested me the most--but I do diverse projects and always there is
> the boring maintenance and adjustments for cracked code which hackers
> have caught on to (this can get interesting.) However, where I
> presently find employment, ALL programs are in "C". From our
> in-house--marketing, sales, business end--right down to the drivers.
>
This makes sense. C was designed as an object-code generator for things like operating system librarys and (now) drivers. C can often be thought of as a portable assembler.

The age of writing applications in C (ANSI-C, anyway) is probably long over. We have much better tools to solve that problem. Hey, I like C, but I recognize it's weaknesses. If COBOL is wordy and has a strange idea of when a "statement" is (or is not) over, then C is too dangerous in the enterprise, and requires coders with a fair amount of experience who know how to use a debugger and enjoy assertions!

But it pays my bills, as does COBOL and Java. My Pascal work lives on in the form of Delphi. I suspect that in the future dependence on a specific language will diminish in favour of deployment platforms like .NET and such. Who knows, maybe the next time we talk Google will be a complete internet development platform?

At any rate, this whole thread was prompted by the earlier comment that somehow COBOL is obsolete and that nobody uses it. My introduction to the language (not my choice, either) has enlightened me somewhat to the fact that this is just not the case. In fact, the exact opposite is true right now, and is unlikely to change until someone can come up with a tool for the same problem space that offers the same necessary qualities.

It is not just that old-timers are reluctant to see the light and move to Java or C (or rewrite all those thousands of lines in machine-specific assembler.) The space that COBOL is in cannot be replaced (not without a lot of pain and significant risk) by anything else right now. The "right" kind of Java environment is a likely candidate in the long term.

Anything else I've mentioned is secondary to this point.

I've said it before, but it still bears repeating: I'm glad my bank depends on mainframes and COBOL. Uptime measured in years and performance in thousands of transactions per second (with rollback) is a Good Thing!

135. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:09:32 UTC
From: dplatt@radagast.org
Message-ID: <119uiqs1s37vo77@corp.supernews.com>
Source record: 75998

In article <429e879e$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

>Years ago, experiments were carried out with chaotic keys.
>Wonder what happened to that notion?

Depends how you use 'em.

As far as I know, the "one time pad" system is still used for certain communications which require extremely high security. The key is as long as the message itself, is generated via extremely-random processes (e.g. monitoring radioactive decay, listening to RF white noise from deep-space sources, etc.), is used only once (it's exclusive-or'ed with the message), and is then destroyed. Since there's no regularity in the key, and no re-use of any portion of the key, there's no way to analyze the cipherstream - any possible plaintext is equally probable.

The biggest limitation to this system is that it's very clumsy to use. You have to generate a *lot* of truly-random key, and then manage to distribute it via a physically-secure channel (e.g. CD-R discs hand-carried by an armed courier) and keep it secure (tamper-evident seals on the packages, etc.). I believe this system is used for certain military and intelligence data, but I'd be sorta surprised to see it being used in commercial applications.

For less-secure cryptosystems, the problems seem to break down into several categories: the strength of the algorithm itself (e.g. are there any cryptanalytic attacks which are significant more efficient than brute-force enumeration of all possible keys), distribution and sharing and use of the keys, and the integrity of the coding (e.g. did the algorithm or the implementation code contain a "subliminal channel" which "leaks" information about the message or key?).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

136. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:11:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HZHne.186$oH6.8197181@news.sisna.com>
Source record: 76004

Richard:

Currently I am following his "Wolves of Calla" series... I don't mind
kicking him a few pennies myself....

Warmest regards,
John

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:g8eu91hsmo0tjqdsulc7vc577oisfgfvq2@4ax.com...
> On Thu, 02 Jun 2005 11:11:06 GMT, Russ <carlzomer@hotmail.com> wrote:
>
>>King seems to get paid by the word
>>and his prose show it.
>
> Hi Russ,
>
> I would take a tenth penny on the dollar he made, and live a rich man.
>
> 73's
> Richard Clark, KB7QHC

137. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:14:52 UTC
From: dplatt@radagast.org
Message-ID: <119uj4s260dqm53@corp.supernews.com>
Source record: 76000

In article <429e61e6$0$3716$39cecf19@news.twtelecom.net>,
Tom Ring <news0002@taring.org> wrote:

>I have 2 slide rules that I picked up recently, but I miss my easy on
>the eyes yellow aluminum Pickett LogLogDeciTrig (I think that's what it
>was) that got misplaced during a move a couple decades ago.

Keep your eye on eBay. Chances are good that you can pick up the
exact model you had before, either used-in-good-condition or
new-old-stock, for a reasonable price.

I'll admit that there's a danger to this, though. I started
collecting slide rules a few years ago, out of nostalgia, and got
bitten by the bug. I'm up to about 40 of them now... everything from
little 5" slipsticks, to an 8" circular, to an Otis King L cylindrical
in really fabulous condition. There are even a few (a Concise
circular, and a Pickett aluminum rule) with specialized X/L/C/F scales
for doing resonant-circuit calculations.

--
Dave Platt <dplatt@radagast.org> AE6EO
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I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

138. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:30:08 UTC
From: "Daniel J. Stern" <dastern@127.0.0.1>
Message-ID: <Pine.GSO.4.58.0506021429530.24513@alumni.engin.umich.edu>
Source record: 76001
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Thu, 2 Jun 2005, Tony Elka wrote:

> > The entire tribes of innocent men, women, and children who were
> > slaughtered 3000 years ago thought that it was pretty relevant.

> If it hadn't happened, they still might be with us today.

...to share with us the secret of living longer than 3000 years.

139. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:39:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ynIne.187$IU6.8434716@news.sisna.com>
Source record: 76003

clvmnky:

The only time I ever used a keypad and programmed directly in hex was college... it was a beginning class where you had to develop your own simplistic compiler and linker to run on a motorola processor, to gain understanding at the workings of a processor...

My C compiler/linker will go "Dennis Ritchie"/ansi/OOP/etc... there are compiler directives to allow or bar any encountered standards--I always run "wide open", if it is assembly to complex OOP macros the compiler never complains (except at real logic/language/syntax errors and missing libraries)... however, we call the winapi directly when in windows, the UNIX kernel directly when in UNIX/Linux... or assembly to deal with an LCD screen and ports if on the microcode of motorola cell phone, etc...

We have developed in-house source/binary libraries, both static and dynamic and seldom go to a 3rd party vendors (M$ SDK/DDK is used for windows NT, sometimes, mostly kernel device drivers)...

Frankly--I live a coders dream (well, something like that)... <grin>

Warmest regards,
John

"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message news:VNHne.8603$5u4.28578@nnrp1.uunet.ca...
> On 02/06/2005 12:50 PM, John Smith wrote:
>> clvrmnky:
>> Real processor instructions are numbers, binary, they can be
>> visualized
>> in one and zeros, but much easier on the hex, 16 base, system.... of
>> course assembly language has a syntax... but with its syntax, for the
>> most part, one single instruction translates down to one or two
>> processor instruction(s) (number(s))(and there are even exceptions to
>> this--macro processors for example)--in a high level language one
>> instruction can translate to hundreds if not thousands of
>> instructions
>> on the processor level.
>>
> Well, real processor instructions are microcode, or (at some point)
> fields of electrons doing little controlled dances across the gates of
> semiconductors. We aren't really talking about binary values anymore
> because even this is an abstraction. It's not like anyone uses a
> keypad
> and/or mechanical switches to load values into a register anymore.
>

> However, assemblers were, and still or to some extent, seen as
> high-level abstractions to facilitate code maintenance and
> readability.
> This, of course, is why we have such a thing as computer languages.
> Most of the time we don't care if the macros we see in a text file
> correspond directly with a particular instruction.
>
> Heck, for application programmers the further one gets away from
> thinking about "instructions", the better!
>
>> Well, arguing cobol when technical uses are intended is moot. You
>> would
>> need an assembly language programmer to even begin--the language
>> simply
>> does not have the constructs to be used effectively and would need to
>> be
>> created.
> I'm not sure what you mean. While it may be handy to think of
> machine-coders as the "starting point" for all things, this is not
> really how it works. Most high-level languages are written in other
> high-level languages.
>
> Of course, many people take issue with the whole high vs. low level
> approach anyway. Languages like C and Forth are certainly low-level
> if
> you look at them the right way. This is one of their strengths.
>
> However, being closer to the metal is not always better. The whole
> notion of computer languages is to find a way to describe a solution
> to
> a problem space. There are some spaces
>
>> Except for my first entry into the field, I have always avoided
>> business
>> related programming (cobol/basic--so I am not well voiced to argue
>> bank
>> coding) like the plague (my avoidance is NOT always successful even
>> today.) Writing the interfaces to hardware (drivers) has always
>> interested me the most--but I do diverse projects and always there is
>> the boring maintenance and adjustments for cracked code which hackers
>> have caught on to (this can get interesting.) However, where I
>> presently find employment, ALL programs are in "C". From our
>> in-house--marketing, sales, business end--right down to the drivers.
>>
> This makes sense. C was designed as an object-code generator for
> things
> like operating system librarys and (now) drivers. C can often be
> thought of as a portable assembler.
>
> The age of writing applications in C (ANSI-C, anyway) is probably long

> over. We have much better tools to solve that problem. Hey, I like
> C,
> but I recognize it's weaknesses. If COBOL is wordy and has a strange
> idea of when a "statement" is (or is not) over, then C is too
> dangerous
> in the enterprise, and requires coders with a fair amount of
> experience
> who know how to use a debugger and enjoy assertions!
>
> But it pays my bills, as does COBOL and Java. My Pascal work lives on
> in the form of Delphi. I suspect that in the future dependence on a
> specific language will diminish in favour of deployment platforms like
> .NET and such. Who knows, maybe the next time we talk Google will be
> a
> complete internet development platform?
>
> At any rate, this whole thread was prompted by the earlier comment
> that
> somehow COBOL is obsolete and that nobody uses it. My introduction to
> the language (not my choice, either) has enlightened me somewhat to
> the
> fact that this is just not the case. In fact, the exact opposite is
> true right now, and is unlikely to change until someone can come up
> with
> a tool for the same problem space that offers the same necessary
> qualities.
>
> It is not just that old-timers are reluctant to see the light and move
> to Java or C (or rewrite all those thousands of lines in
> machine-specific assembler.) The space that COBOL is in cannot be
> replaced (not without a lot of pain and significant risk) by anything
> else right now. The "right" kind of Java environment is a likely
> candidate in the long term.
>
> Anything else I've mentioned is secondary to this point.
>
> I've said it before, but it still bears repeating: I'm glad my bank
> depends on mainframes and COBOL. Uptime measured in years and
> performance in thousands of transactions per second (with rollback) is
> a
> Good Thing!

140. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:43:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <1rIne.188$nL6.8307802@news.sisna.com>
Source record: 76005

Christopher:

At least you pay 'em for listening to that infernal BEEP!!! <grin>

Warmest regards,
John

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:d7mus2$8nq$1@reader01.news.esat.net...
> Hi,
> I run a security buisness radio system.The majority of their radios
> are VHF Motorola Brands.The thing is that all of the current installed
> ones have a simultaneously multi tone bleep.In other words a number of
> beeps in one bleep.I know its confusing.
>
> Chris
>
> "Bob Miller" <NOSPAM@neosoft.com> wrote in message
> news:03ls91d7lspfk38r670g57eq9ie5dbo0vm@4ax.com...
>> On Wed, 1 Jun 2005 23:49:08 +0100, "Christopher O'Callaghan"
>> <d.ocallaghan@iolfree.ie> wrote:
>>
>>>Hello,
>>>Where would i find a roger bleep which would consist of a number of
>>>different tones in one bleep?I want to install it inside of a
>>>Motorola GM350
>>>for commercial use.
>>>Any assistance is appreciated!
>>>
>>>All the best
>>>Chris
>>>
>>>
>>
>> My Motorola Maxtrak beeps just as I key it to talk on the 800 mhz
>> band. Does that qualify as a roger-bleep? It should be built into
>> your
>> Motorola, too.
>>
>> Just what kind of a bleep are you looking for? Talk about picky :-(
>>
>> bob
>> k5qwg
>>
>>

>>
>
>

141. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 18:58:38 UTC
From: dplatt@radagast.org
Message-ID: <119ulmu40ggeo44@corp.supernews.com>
Source record: 76007

In article <st7t91hv8kpcvk4c4t9jgathngvj9c100a@4ax.com>,
Buck <iam@this.site> wrote:

>As for the local enforcement officers having permission to enforce the
>illegal CBs, I believe I remember that that bill was overturned. I
>hope so and am glad if it was. I don't know many police that know the
>difference between the CB and Ham radio. My goodness, they can't even
>tell the difference between a ham rig and a cell phone even when you
>hand them a copy of the law that tells them to leave radio operators
>alone.

I checked, and it appears that the bill passed back in 2000. It
amended the Communications Act of 1934, adding subsection (f) to USC
47 chapter 5 subchapter III Part I Section 302a [whew!].

The new subsection allows a state or local government to pass a law
which forbids the use of any CB radio not authorized by the FCC,
and/or the unauthorized use of CB equipment on frequencies between 24
and 35 MHz. In effect, this subsection overrides the general rule
that only the FCC has jurisdiction over radio operation - it grants
local governments the right to claim a limited jurisdiction in this
case.

So, the local police don't end up enforcing an FCC regulation
directly... but they can enforce a *local* law which has the
same effect, if the local government chooses to pass one. If the
local government doesn't pass a local law to this effect, the police
have no jurisdiction.

There's a whole bunch of verbiage about appealing local decisions to
the FCC, about the FCC's responsibility for providing technical
guidance to local governments about doing this right, etc.

For the gory details, see http://uscode.house.gov/download/pls/47C5.txt
about 40% of the way down through the text.

It's possible that this subsection has been challenged in court, or
even overturned, but I'm not aware of any case in which this is
happened.

I have no idea how many state and local governments (if any) have
passed laws, or prosecuted illegal CB operation, under the authority
granted by this subsection.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior

I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

142. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 19:31:24 UTC
From: Dave <noone@nowhere.com>
Message-ID: <HqidnTcAcv4IwwLfRVn-2g@crocker.com>
Source record: 76008

why not a T match. simpler to build and adjust than a gamma, completely dc grounded, and balanced.

"John Smith" <assemblywizard@gmail.com> wrote in message news:7exne.148$vr.5300382@news.sisna.com...
> From working with the gamma match in real life--I have noticed it favors
> launching the signal from the side of the DE which has the gamma.
>
> Now in playing with the gamma formulas, I wondered...
> What if the gamma rod is replaced with a "gamma tube", same set up as
> the normal gamma, except the the rod is now a tube surrounding the
> element which is being fed? Something of a "concentric match", I am
> guessing the formula to compute concentric line Zo would come into play
> here, or a near equiv... purpose would be to get rid of the favored
> increase in signal from the side containing the gamma...
>
> I know someone is going to suggest EZNEC--however, I am not good at
> drawing a tube with it!!!!
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality, right
> before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

143. Re: Parallel Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 19:58:40 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1117742320.577802.276840@g44g2000cwa.googlegroups.com>
Source record: 76009

Thanks, Wes. And in case anyone missed it, since the input impedance goes to infinity, you're delivering no power to the input, so there is no voltage across the load. The transmission is a comb of notches, spaced in frequency by (speed of light)*(v.f.)/(total length of line) -- in this case, 3.2296MHz as Wes says. In other words, the first notch and the notch spacing is equal to the frequency at which the total line length is one wavelength. If the difference between the two line sections is small and they have loss, the notch is not very deep. If you could actually get lossless line, it's a way to make very narrow, very deep notches, but then if you could get lossless line, you could probably also get lossless capacitors and inductors and make deep, narrow notches with them.

On the other hand, if you have a wavelength of line connected in a loop and put a load 1/4 wave from a source (which is 3/4 wave around the other direction), you get quite a good notch even if the line is slightly lossy. Look up "hybrid junctions" for more info.

Cheers,
Tom

144. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 20:43:50 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <dcKne.208$YW7.8843336@news.sisna.com>
Source record: 76010

Dave:

The T-Match will still show a favor in signal launch because of the
imbalance of the gamma rods on one side, on a beam this could even be
manipulated to ones favor--not as likely on a monopole... just looking
for a way to completely balance the field pattern...
I just thought someone had most likely done something like this
before... if I don't hear of anyone, will shove some various sized
drain, stove pipe, soldered cans, etc. over a 1/2 monopole in place of
the gamma rod and check it out this weekend...

Warmest regards,
John

"Dave" <noone@nowhere.com> wrote in message
news:HqidnTcAcv4IwwLfRVn-2g@crocker.com...
> why not a T match. simpler to build and adjust than a gamma,
> completely dc
> grounded, and balanced.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:7exne.148$vr.5300382@news.sisna.com...
>> From working with the gamma match in real life--I have noticed it
>> favors
>> launching the signal from the side of the DE which has the gamma.
>>
>> Now in playing with the gamma formulas, I wondered...
>> What if the gamma rod is replaced with a "gamma tube", same set up as
>> the normal gamma, except the the rod is now a tube surrounding the
>> element which is being fed? Something of a "concentric match", I am
>> guessing the formula to compute concentric line Zo would come into
>> play
>> here, or a near equiv... purpose would be to get rid of the favored
>> increase in signal from the side containing the gamma...
>>
>> I know someone is going to suggest EZNEC--however, I am not good at
>> drawing a tube with it!!!!
>>
>> Warmest regards,
>> John
>> --
>> Watching the cutting edge of yesterday replay--in virtual reality,
>> right
>> before my eyes--in real time!
>> Thirty year old technology--wasn't it amazing?

>>
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>

145. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 20:59:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <429f7417$1_2@spool9-west.superfeed.net>
Source record: 76011

John Smith wrote:
> The T-Match will still show a favor in signal launch because of the
> imbalance of the gamma rods on one side, ...

A T-match is balanced because it is right+left gamma
matches, i.e. gamma rods on both sides with two equal
series caps (or tube caps).
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

146. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 21:25:54 UTC
From: Dave <noone@nowhere.com>
Message-ID: <NIGdnXq3irbx5ALfRVn-oQ@crocker.com>
Source record: 76012

if you do a T match like telrex used on their monobanders there is no
favored side, the two T arms were fed with a 1/2 wave phasing line and
required no capacitor so everything was at dc ground. very simple to build
and definately balanced.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:dcKne.208$YW7.8843336@news.sisna.com...
> Dave:
>
> The T-Match will still show a favor in signal launch because of the
> imbalance of the gamma rods on one side, on a beam this could even be
> manipulated to ones favor--not as likely on a monopole... just looking
> for a way to completely balance the field pattern...
> I just thought someone had most likely done something like this
> before... if I don't hear of anyone, will shove some various sized
> drain, stove pipe, soldered cans, etc. over a 1/2 monopole in place of
> the gamma rod and check it out this weekend...
>
> Warmest regards,
> John
>
> "Dave" <noone@nowhere.com> wrote in message
> news:HqidnTcAcv4IwwLfRVn-2g@crocker.com...
> > why not a T match. simpler to build and adjust than a gamma,
> > completely dc
> > grounded, and balanced.
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:7exne.148$vr.5300382@news.sisna.com...
> >> From working with the gamma match in real life--I have noticed it
> >> favors
> >> launching the signal from the side of the DE which has the gamma.
> >>
> >> Now in playing with the gamma formulas, I wondered...
> >> What if the gamma rod is replaced with a "gamma tube", same set up as
> >> the normal gamma, except the the rod is now a tube surrounding the
> >> element which is being fed? Something of a "concentric match", I am
> >> guessing the formula to compute concentric line Zo would come into
> >> play
> >> here, or a near equiv... purpose would be to get rid of the favored
> >> increase in signal from the side containing the gamma...
> >>
> >> I know someone is going to suggest EZNEC--however, I am not good at
> >> drawing a tube with it!!!!

> >>
> >> Warmest regards,
> >> John
> >> --
> >> Watching the cutting edge of yesterday replay--in virtual reality,
> >> right
> >> before my eyes--in real time!
> >> Thirty year old technology--wasn't it amazing?
> >>
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147. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 21:37:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <%_Kne.218$Xs.9157729@news.sisna.com>
Source record: 76020

Cecil:

Sorry, didn't mean that sort "balance"--as in a balanced antenna... you are right to make me be more specific...

...rather, I mean in the radiated rf field pattern of the antenna itself--because the T-Match is only on one side of the driven element--the radiation will not be completely circular (as in a vertical)--and will begin formation of a stronger pattern in one direction over all other directions on a compass, this is in reference to a vertical monopole, but still would be in effect in a horizontal version, in affecting a stronger pattern in one direction.... (and of course, there is no such thing as a "perfect" pattern, just degrees of more or less.)

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:429f7417$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> The T-Match will still show a favor in signal launch because of the
>> imbalance of the gamma rods on one side, ...
>
> A T-match is balanced because it is right+left gamma
> matches, i.e. gamma rods on both sides with two equal
> series caps (or tube caps).
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

148. Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 21:38:44 UTC
From: jgboyles@aol.com
Message-ID: <1117748324.121263.285370@g44g2000cwa.googlegroups.com>
Source record: 76013

Hi, I haven't flown since 9/11, preferred to drive. I am going on a Cruise to the eastern Caribbean, and want to take my travel antenna (loaded whip with counterpoise) and small hf xcvr. Anybody done this sort of thing on a plane? Would it be better to take the rig on carry-on or in the checked baggage? Or is this a bad idea cause they will arrest me as a suspected terrorist? Ham radios are not on the list of banned items, but I had rather not bother if it will cause any glitch in this endeavor. Thanks for any info.
Gary N4AST

149. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 21:43:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <44Lne.219$Du.9193601@news.sisna.com>
Source record: 75928

Dave:

Yes, the very bottom of the monopole with a concentric "gamma tube"
would be at ground level (NOT the BOTTOM of the "gamma tube", the top of
the "gamma tube" would be connected to DE with a shorting disk or
shorting strap and would be some distance up the DE, the bottom of the
"gamma tube" would connect to a series cap to tune out Jx of the "gamma
tube", and then to the center conductor of the coax.) and coax shield is
placed at the level of the bottom of the DE monopole...

Warmest regards,
John

"Dave" <noone@nowhere.com> wrote in message
news:NIGdnXq3irbx5ALfRVn-oQ@crocker.com...
> if you do a T match like telrex used on their monobanders there is no
> favored side, the two T arms were fed with a 1/2 wave phasing line and
> required no capacitor so everything was at dc ground. very simple to
> build
> and definately balanced.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:dcKne.208$YW7.8843336@news.sisna.com...
>> Dave:
>>
>> The T-Match will still show a favor in signal launch because of the
>> imbalance of the gamma rods on one side, on a beam this could even be
>> manipulated to ones favor--not as likely on a monopole... just
>> looking
>> for a way to completely balance the field pattern...
>> I just thought someone had most likely done something like this
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>> drain, stove pipe, soldered cans, etc. over a 1/2 monopole in place
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>> the gamma rod and check it out this weekend...
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>> "Dave" <noone@nowhere.com> wrote in message
>> news:HqidnTcAcv4IwwLfRVn-2g@crocker.com...
>> > why not a T match. simpler to build and adjust than a gamma,
>> > completely dc
>> > grounded, and balanced.
>> >

>> > "John Smith" <assemblywizard@gmail.com> wrote in message
>> > news:7exne.148$vr.5300382@news.sisna.com...
>> >> From working with the gamma match in real life--I have noticed it
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>> >> launching the signal from the side of the DE which has the gamma.
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>> >> What if the gamma rod is replaced with a "gamma tube", same set up
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>> >> the normal gamma, except the the rod is now a tube surrounding the
>> >> element which is being fed? Something of a "concentric match", I
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>> >> here, or a near equiv... purpose would be to get rid of the
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>> >> increase in signal from the side containing the gamma...
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>> >> I know someone is going to suggest EZNEC--however, I am not good
>> >> at
>> >> drawing a tube with it!!!!
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>> >> Warmest regards,
>> >> John
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150. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 22:01:01 UTC
From: dplatt@radagast.org
Message-ID: <119v0ctrg6uom5f@corp.supernews.com>
Source record: 76014

In article <1117748324.121263.285370@g44g2000cwa.googlegroups.com>,
<jgboyles@aol.com> wrote:

>Hi, I haven't flown since 9/11, preferred to drive. I am going on a
>Cruise to the eastern Caribbean, and want to take my travel antenna
>(loaded whip with counterpoise) and small hf xcvr. Anybody done this
>sort of thing on a plane? Would it be better to take the rig on
>carry-on or in the checked baggage?

I haven't done it myself. From what I have heard, anecdotally:

- Both carry-on and checked-luggage methods can work. Carry-on may
be preferable because you'll be present when the equipment goes
through X-ray, and can explain it on request.

- It's a very good idea to have a printed copy of your amateur-radio
license with you, and another with the radio itself. Go to the FCC
web site and download/print a set if you don't have 'em
conveniently available. Also, carry a copy of whatever
reciprocal-operating-agreement documentation you'll need to
demonstrate that you have privilege to operate in the countries into
which you are travelling.

- Identify each piece of equipment clearly - a label may be enough,
but it's probably better to ship 'em in their original boxes if
available, and/or have the manual with it.

- The inspectors are as likely to be concerned about the wire and
cable and loading coils as they are about the radio... they may
look like a suspicious bomb setup on X-ray.

- Alerting the inspection personnel to the fact that you have radio
gear in your luggage couldn't hurt... maybe ask them "Hey, is the
X-ray process going to damage my radio?"

- Be prepared to explain everything, and (if asked) to plug in the
transceiver and tune it around until it hears a few birdies, so
they can be confident that it's actually a working radio.

- If you want to actually operate when you're on board a ship, you'll
need the captain's approval to transmit. Don't transmit on board a
plane :-)

My guess is that you'll have less trouble with this than my wife and I
had, getting her walking sticks approved for carry-on in Germany last
year (they were nervous about the spikes on the bottoms).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

151. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 22:05:16 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <119v0l3qk2rdifb@corp.supernews.com>
Source record: 76015

jgboyles@aol.com wrote:

> Hi, I haven't flown since 9/11, preferred to drive. I am going on a
> Cruise to the eastern Caribbean, and want to take my travel antenna
> (loaded whip with counterpoise) and small hf xcvr. Anybody done this
> sort of thing on a plane? Would it be better to take the rig on
> carry-on or in the checked baggage? Or is this a bad idea cause they
> will arrest me as a suspected terrorist? Ham radios are not on the
> list of banned items, but I had rather not bother if it will cause any
> glitch in this endeavor. Thanks for any info.
> Gary N4AST
>

Two years ago while my son and I were returning from Canada I was scrutinized and had to show my license. This was at a crossing point somewhere between "Nowhere and Somewhere Else" ND.

I would recommend you getting a fishing pole transport tube and stuffing your antenna in it. Ship as baggage with your rig.

Where are you going and when? What kind of a sked do you anticipate?

Check with your cruise line as to being able to operate on board. Also have a universal license (what ever they call it) as you will be on board a foreign flag vessel and not under the FCC. The same applies in most ports, except the USVI and PR.

Bon Voyage
Dave WD9BDZ

152. Re: Roger bleep.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 22:16:51 UTC
From: SignalFerret <signalferret@verizon.net>
Message-ID: <nzLne.19878$tv3.2856@trnddc06>
Source record: 76016

Are you sure it's not MDC-1200 ANI?

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:d7mus2$8nq$1@reader01.news.esat.net...
> Hi,
> I run a security buisness radio system.The majority of their radios are
> VHF Motorola Brands.The thing is that all of the current installed ones
> have a simultaneously multi tone bleep.In other words a number of beeps in
> one bleep.I know its confusing.

153. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 22:27:37 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <tJLne.13595$Vm4.9195@trnddc01>
Source record: 76017

"John Smith" <assemblywizard@gmail.com> wrote in message
news:dcKne.208$YW7.8843336@news.sisna.com...
> Dave:
>
> The T-Match will still show a favor in signal launch because of the
> imbalance of the gamma rods on one side, on a beam this could even be
> manipulated to ones favor--not as likely on a monopole... just looking
> for a way to completely balance the field pattern...
> I just thought someone had most likely done something like this
> before... if I don't hear of anyone, will shove some various sized
> drain, stove pipe, soldered cans, etc. over a 1/2 monopole in place of
> the gamma rod and check it out this weekend...
>
> Warmest regards,
> John
>How can a T match have show a bias- it is balanced. Virtually all the
serious EME arrays use this matching technique and show the major lobe dead
off the front.

Dale W4OP

154. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 22:41:33 UTC
From: dplatt@radagast.org
Message-ID: <119v2otpe9mt6ba@corp.supernews.com>
Source record: 76018

In article <tJLne.13595$Vm4.9195@trnddc01>,
Dale Parfitt <par@parelectronics.com> wrote:

>How can a T match have show a bias- it is balanced. Virtually all the
>serious EME arrays use this matching technique and show the major lobe dead
>off the front.

Are they feeding directly off of the coax, or do they use a halfwave
(or other) balun between the coax and the T?

Seems to me that a T directly from coax could show some amount of
imbalance. The center-conductor current would have only one pathway
to feed (the T), while the shield current would have two (the other
side of the T, and back down the feedline). If the outside of the
feedline was an integral number of halfwaves down to the point at
which it's grounded, there might be enough current flow on the outside
of the feedline to disturb the balance and change the pattern somewhat.

Sticking a half-wave coax balun at the input of the T ought to resolve
this pretty well, no?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

155. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 22:46:30 UTC
From: jgboyles@aol.com
Message-ID: <1117752390.048110.229430@g43g2000cwa.googlegroups.com>
Source record: 76019

Dave Platt wrote:
> In article <1117748324.121263.285370@g44g2000cwa.googlegroups.com>,
> <jgboyles@aol.com> wrote:
>
> >Hi, I haven't flown since 9/11, preferred to drive. I am going on a
> >Cruise to the eastern Caribbean, and want to take my travel antenna
> >(loaded whip with counterpoise) and small hf xcvr. Anybody done this
> >sort of thing on a plane? Would it be better to take the rig on
> >carry-on or in the checked baggage?
>
> I haven't done it myself. From what I have heard, anecdotally:
>
> - Both carry-on and checked-luggage methods can work. Carry-on may
> be preferable because you'll be present when the equipment goes
> through X-ray, and can explain it on request.
>
> - It's a very good idea to have a printed copy of your amateur-radio
> license with you, and another with the radio itself. Go to the FCC
> web site and download/print a set if you don't have 'em
> conveniently available. Also, carry a copy of whatever
> reciprocal-operating-agreement documentation you'll need to
> demonstrate that you have privilege to operate in the countries into
> which you are travelling.
>
> - Identify each piece of equipment clearly - a label may be enough,
> but it's probably better to ship 'em in their original boxes if
> available, and/or have the manual with it.
>
> - The inspectors are as likely to be concerned about the wire and
> cable and loading coils as they are about the radio... they may
> look like a suspicious bomb setup on X-ray.
>
> - Alerting the inspection personnel to the fact that you have radio
> gear in your luggage couldn't hurt... maybe ask them "Hey, is the
> X-ray process going to damage my radio?"
>
> - Be prepared to explain everything, and (if asked) to plug in the
> transceiver and tune it around until it hears a few birdies, so
> they can be confident that it's actually a working radio.
>
> - If you want to actually operate when you're on board a ship, you'll
> need the captain's approval to transmit. Don't transmit on board a
> plane :-)
>

> My guess is that you'll have less trouble with this than my wife and I
> had, getting her walking sticks approved for carry-on in Germany last
> year (they were nervous about the spikes on the bottoms).
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!
Hi Dave, thanks for the reply, sounds like it is not worth the
trouble, although about all I do with ham radio these days is mobile,
portable operation.
Gary N4AST

156. Re: Handheld GMRS/FRS radio antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 23:17:12 UTC
From: Warren <nospam@nospam.com>
Message-ID: <AsMne.35870$_r1.1029661@news20.bellglobal.com>
Source record: 76021

Thanks Richard,

I certainly can't disagree with your argument about location, but I was
really trying to ask if , in identical environments and all other radio
components being equal does a 1/4 wave antenna give a quantifiable signal
quality advantage over a 2-3 inch antenna. I take it your answer is no.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:8a6t91182bcf4b76fjo9nrd5tf9a4slrk5@4ax.com...
> On Wed, 1 Jun 2005 22:49:33 -0400, "Warren" <nospam@nospam.com> wrote:
>
> >The one thing I think I've learned is that three most important
components
> >of a radio are the antenna, the antenna and the antenna.
>
> Hi Warren,
>
> I suspect that if you've been lurking here long enough that, yes, you
> may come to that conclusion. Unfortunately, within the scope of
> alternatives you have considered, what you write above is simply not
> the answer. Yes, it is smacks of a time-honored aphorism drawn from
> business or real-estate (not much difference in this new investment
> bubble these days); but actually it is the old bottle and not the new
> wine that rules in this regard.
>
> In other words it IS and has always BEEN - location, location,
> location.
>
> >I believe increasing the power
> >at the antenna from 1/2 watt to 1 watt or 2 watt gives me a 3 to 6 dB
> >increase in signal strength, respectively. If the 1/4 wave antenna on
the
> >1/2 watt radio has a 3dB or better gain on both transmit & receive units,
> >due to better antenna design, I've achieved the same radio performance
with
> >longer battery life, all other things being equal. I guess I'm asking if
> >there is any information that can help quantify the differences in the
two
> >types of antenna design?
>
> A perfectly reasonable question, but location will eclipse these
> gains you've researched - many times over. Height is always king of
> the mountain. The ability of one antenna to "see" another antenna
> trumps all aces, even if both antennas are crummy beyond compare.
>

> Height is also far easier to obtain than the constrained gain you
> describe. Hike that antenna ten feet for 10dB gain, or try to limp
> along with 3 to 6dB with a huge investment in someone's "state of the
> art antenna design?" The numbers will forecast that easily.
>
> How do you get this 10dB? Well, yes, that is more handwaving than
> guarantee when nothing has been said of the terrain, or perhaps the
> fact you live in the tallest apartment at the top of a hill. The same
> spin of the wheel dominates the best antenna money can buy too.
>
> A simple rule at these wavelengths and typical power levels: The
> range of your antenna is measured in miles for the square root of
> double the height in feet of your antenna. If you have a hand held
> and you are standing outside (we will call that at 5 foot), then your
> range is 3 miles to the radio horizon. If someone has a similar hand
> held (at 5 feet) your combined range (grazing the horizon) is roughly
> 6 miles. If they are 10 miles away, guess what? Better antennas
> might do the trick, but they are bucking the trend.
>
> Now let's raise both those antennas, each to 16 feet (the peak of a
> roof of a ranch style house). Your range is 11 miles.
>
> This is simplistic in the extreme, but as a basis of comparison, all
> antennas at this frequency share the same results of height advantage.
>
> Now, is this a matter of gain or power? At these frequencies, not
> really as long as they are "in the clear" (that is, free of nearby
> obstructions and small mountains in that path). Ham radio
> communication with handhelds to the Space Shuttle is not a fantasy,
> and there we are talking about common antennas, and common powers, at
> uncommon distances (a hundred miles or more). Such is the advantage
> of that "in the clear" path.
>
> Irrespective of your choice of antenna, the choice of path (if in fact
> you have a choice) will dominate results.
>
> 73's
> Richard Clark, KB7QHC

157. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 23:36:08 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ReudnZsTSotvCgLfRVn-jg@crocker.com>
Source record: 76022

but a vertical monopole about 1/4 wave long doesn't even need a matching system in most cases... unless you are a real perfectionist. just what are you trying to build here anyway?

"John Smith" <assemblywizard@gmail.com> wrote in message news:%_Kne.218$Xs.9157729@news.sisna.com...
> Cecil:
>
> Sorry, didn't mean that sort "balance"--as in a balanced antenna... you
> are right to make me be more specific...
>
> ...rather, I mean in the radiated rf field pattern of the antenna
> itself--because the T-Match is only on one side of the driven
> element--the radiation will not be completely circular (as in a
> vertical)--and will begin formation of a stronger pattern in one
> direction over all other directions on a compass, this is in reference
> to a vertical monopole, but still would be in effect in a horizontal
> version, in affecting a stronger pattern in one direction.... (and of
> course, there is no such thing as a "perfect" pattern, just degrees of
> more or less.)
>
> Warmest regards,
> John
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:429f7417$1_2@spool9-west.superfeed.net...
> > John Smith wrote:
> >> The T-Match will still show a favor in signal launch because of the
> >> imbalance of the gamma rods on one side, ...
> >>
> > A T-match is balanced because it is right+left gamma
> > matches, i.e. gamma rods on both sides with two equal
> > series caps (or tube caps).
> > --
> > 73, Cecil, http://www.qsl.net/w5dxp
> >
> > ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> > News==----
> > http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> > 120,000+ Newsgroups
> > ----= East and West-Coast Server Farms - Total Privacy via Encryption
> > =----
>
>

158. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 23:37:28 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <YKMne.11016$m%3.2728@trnddc02>
Source record: 76023

<jgboyles@aol.com> wrote in message
news:1117752390.048110.229430@g43g2000cwa.googlegroups.com...
>
>
> Dave Platt wrote:
>> In article <1117748324.121263.285370@g44g2000cwa.googlegroups.com>,
>> <jgboyles@aol.com> wrote:
>>
>> >Hi, I haven't flown since 9/11, preferred to drive. I am going on a
>> >Cruise to the eastern Caribbean, and want to take my travel antenna
>> >(loaded whip with counterpoise) and small hf xcvr. Anybody done this
>> >sort of thing on a plane? Would it be better to take the rig on
>> >carry-on or in the checked baggage?
>>
>> I haven't done it myself. From what I have heard, anecdotally:
>>
>> - Both carry-on and checked-luggage methods can work. Carry-on may
>> be preferable because you'll be present when the equipment goes
>> through X-ray, and can explain it on request.
>>
>> - It's a very good idea to have a printed copy of your amateur-radio
>> license with you, and another with the radio itself. Go to the FCC
>> web site and download/print a set if you don't have 'em
>> conveniently available. Also, carry a copy of whatever
>> reciprocal-operating-agreement documentation you'll need to
>> demonstrate that you have privilege to operate in the countries into
>> which you are travelling.
>>
>> - Identify each piece of equipment clearly - a label may be enough,
>> but it's probably better to ship 'em in their original boxes if
>> available, and/or have the manual with it.
>>
>> - The inspectors are as likely to be concerned about the wire and
>> cable and loading coils as they are about the radio... they may
>> look like a suspicious bomb setup on X-ray.
>>
>> - Alerting the inspection personnel to the fact that you have radio
>> gear in your luggage couldn't hurt... maybe ask them "Hey, is the
>> X-ray process going to damage my radio?"
>>
>> - Be prepared to explain everything, and (if asked) to plug in the
>> transceiver and tune it around until it hears a few birdies, so
>> they can be confident that it's actually a working radio.
>>

>> - If you want to actually operate when you're on board a ship, you'll
>> need the captain's approval to transmit. Don't transmit on board a
>> plane :-)
>>
>> My guess is that you'll have less trouble with this than my wife and I
>> had, getting her walking sticks approved for carry-on in Germany last
>> year (they were nervous about the spikes on the bottoms).
>>
>> --
>> Dave Platt <dplatt@radagast.org> AE6EO
>> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
>> I do _not_ wish to receive unsolicited commercial email, and I will
>> boycott any company which has the gall to send me such ads!
> Hi Dave, thanks for the reply, sounds like it is not worth the
> trouble, although about all I do with ham radio these days is mobile,
> portable operation.
> Gary N4AST

Gary

I got my ICOM PCR 1000 and an antenna and lap top computer to Miami from
Los Angeles (LAX), as carry on, two months ago. No trouble
It has been my experience that the rules are not consistant from day to
day with airport security regulation enforcement.

Jerry

159. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 23:38:00 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Yo-dnZN-vK7_BQLfRVn-sQ@crocker.com>
Source record: 76024

"Dave Platt" <dplatt@radagast.org> wrote in message
news:119v2otpe9mt6ba@corp.supernews.com...
> In article <tJLne.13595$Vm4.9195@trnddc01>,
> Dale Parfitt <par@parelectronics.com> wrote:
>
> >How can a T match have show a bias- it is balanced. Virtually all the
> >serious EME arrays use this matching technique and show the major lobe
dead
> >off the front.
>
> Are they feeding directly off of the coax, or do they use a halfwave
> (or other) balun between the coax and the T?
>
> Seems to me that a T directly from coax could show some amount of
> imbalance. The center-conductor current would have only one pathway
> to feed (the T), while the shield current would have two (the other
> side of the T, and back down the feedline). If the outside of the
> feedline was an integral number of halfwaves down to the point at
> which it's grounded, there might be enough current flow on the outside
> of the feedline to disturb the balance and change the pattern somewhat.
>
> Sticking a half-wave coax balun at the input of the T ought to resolve
> this pretty well, no?

yes, that is how most of them i have seen work. a 1/2 wave phasing line is
used to feed the 'opposite' side of the T making it properly balanced.

160. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 23:41:55 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <bPMne.238$y52.11659328@news.sisna.com>
Source record: 75926

```
Dave:

I had mentioned 1/2 wave monopole above--right now I am in the "1/2 wave
vertical monopole period of life"... <grin>... freq 10 meter on up...

Warmest regards,
John
"Dave" <noone@nowhere.com> wrote in message
news:ReudnZsTSotvCgLfRVn-jg@crocker.com...
> but a vertical monopole about 1/4 wave long doesn't even need a
> matching
> system in most cases... unless you are a real perfectionist. just
> what are
> you trying to build here anyway?
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:%_Kne.218$Xs.9157729@news.sisna.com...
>> Cecil:
>>
>> Sorry, didn't mean that sort "balance"--as in a balanced antenna...
>> you
>> are right to make me be more specific...
>>
>> ...rather, I mean in the radiated rf field pattern of the antenna
>> itself--because the T-Match is only on one side of the driven
>> element--the radiation will not be completely circular (as in a
>> vertical)--and will begin formation of a stronger pattern in one
>> direction over all other directions on a compass, this is in
>> reference
>> to a vertical monopole, but still would be in effect in a horizontal
>> version, in affecting a stronger pattern in one direction.... (and
>> of
>> course, there is no such thing as a "perfect" pattern, just degrees
>> of
>> more or less.)
>>
>> Warmest regards,
>> John
>>
>> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> news:429f7417$1_2@spool9-west.superfeed.net...
>> > John Smith wrote:
>> >> The T-Match will still show a favor in signal launch because of
>> >> the
>> >> imbalance of the gamma rods on one side, ...
```

>> >
>> > A T-match is balanced because it is right+left gamma
>> > matches, i.e. gamma rods on both sides with two equal
>> > series caps (or tube caps).
>> > --
>> > 73, Cecil, http://www.qsl.net/w5dxp
>> >
>> > -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure
>> > Usenet
>> > News==----
>> > http://www.newsfeeds.com The #1 Newsgroup Service in the World!
>> > 120,000+ Newsgroups
>> > ----= East and West-Coast Server Farms - Total Privacy via
>> > Encryption
>> > =----
>>
>>
>
>

161. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-02 23:42:05 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <429f994d$0$3713$39cecf19@news.twtelecom.net>
Source record: 75925

Dave Platt wrote:

> In article <429e61e6$0$3716$39cecf19@news.twtelecom.net>,
> Tom Ring <news0002@taring.org> wrote:
>
>
>>I have 2 slide rules that I picked up recently, but I miss my easy on
>>the eyes yellow aluminum Pickett LogLogDeciTrig (I think that's what it
>>was) that got misplaced during a move a couple decades ago.
>
>
> Keep your eye on eBay. Chances are good that you can pick up the
> exact model you had before, either used-in-good-condition or
> new-old-stock, for a reasonable price.
>
> I'll admit that there's a danger to this, though. I started
> collecting slide rules a few years ago, out of nostalgia, and got
> bitten by the bug. I'm up to about 40 of them now... everything from
> little 5" slipsticks, to an 8" circular, to an Otis King L cylindrical
> in really fabulous condition. There are even a few (a Concise
> circular, and a Pickett aluminum rule) with specialized X/L/C/F scales
> for doing resonant-circuit calculations.
>

Oh, I know. I got bit by writing the response. I bought a K&E 1948
rule last night from ebay. 8.25 plus shipping. What a deal.

tom
K0TAR

162. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 00:20:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <enNne.241$Oo2.11905181@news.sisna.com>
Source record: 75927

jgboyles:

Planes are a bummer, if you can, do what Nancy Regan suggested--just say NO! Very small commuter jumps can be worlds more friendlier...

...and just dropping by a private airport and checking bulletin boards and chatting--if you need hops here in the usa, mexico or canada will work if you don't mind the inconvience...

Short of your co/corp having a private plane and granting you use--business travel sucks, especially international flight... <frown>

Warmest regards,
John

<jgboyles@aol.com> wrote in message news:1117748324.121263.285370@g44g2000cwa.googlegroups.com...
> Hi, I haven't flown since 9/11, preferred to drive. I am going on a
> Cruise to the eastern Caribbean, and want to take my travel antenna
> (loaded whip with counterpoise) and small hf xcvr. Anybody done this
> sort of thing on a plane? Would it be better to take the rig on
> carry-on or in the checked baggage? Or is this a bad idea cause they
> will arrest me as a suspected terrorist? Ham radios are not on the
> list of banned items, but I had rather not bother if it will cause any
> glitch in this endeavor. Thanks for any info.
> Gary N4AST
>

163. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 01:28:52 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-5B8AA0.18283702062005@news.newsguy.com>
Source record: 75929
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <Pine.GSO.4.58.0506021429530.24513@alumni.engin.umich.edu>,
"Daniel J. Stern" <dastern@127.0.0.1> wrote:

> On Thu, 2 Jun 2005, Tony Elka wrote:
>
> > > The entire tribes of innocent men, women, and children who were
> > > slaughtered 3000 years ago thought that it was pretty relevant.
>
> > If it hadn't happened, they still might be with us today.
>
> ...to share with us the secret of living longer than 3000 years.

Good for you, you did the math!

Tony

164. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 01:46:22 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <ODOne.7695$vK5.2782@trnddc03>
Source record: 75930

"Dave Platt" <dplatt@radagast.org> wrote in message
news:119v2otpe9mt6ba@corp.supernews.com...
> In article <tJLne.13595$Vm4.9195@trnddc01>,
> Dale Parfitt <par@parelectronics.com> wrote:
>
> >How can a T match have show a bias- it is balanced. Virtually all the
> >serious EME arrays use this matching technique and show the major lobe
dead
> >off the front.
>
> Are they feeding directly off of the coax, or do they use a halfwave
> (or other) balun between the coax and the T?
>
Check out any of the antenna handbooks for a Tee match. The driven element
is insulated from the boom and split in the middle. Each side of the Tee
taps out on the D.E. at a point yielding a 200 Ohm balanced feed. A 4:1
coaxial balun is used to transform the 200 Ohms balanced down to 50 Ohms
unbalanced.

Dale W4OP

165. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 01:58:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <yPOne.249$Db3.12477576@news.sisna.com>
Source record: 75938

Dale:

Yes, someone injected a T-Match in here, but no real interest in a
T-Match...

Warmest regards,
John

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:ODOne.7695$vK5.2782@trnddc03...
>
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:119v2otpe9mt6ba@corp.supernews.com...
>> In article <tJLne.13595$Vm4.9195@trnddc01>,
>> Dale Parfitt <par@parelectronics.com> wrote:
>>
>> >How can a T match have show a bias- it is balanced. Virtually all
>> >the
>> >serious EME arrays use this matching technique and show the major
>> >lobe
> dead
>> >off the front.
>>
>> Are they feeding directly off of the coax, or do they use a halfwave
>> (or other) balun between the coax and the T?
>>
> Check out any of the antenna handbooks for a Tee match. The driven
> element
> is insulated from the boom and split in the middle. Each side of the
> Tee
> taps out on the D.E. at a point yielding a 200 Ohm balanced feed. A
> 4:1
> coaxial balun is used to transform the 200 Ohms balanced down to 50
> Ohms
> unbalanced.
>
> Dale W4OP
>
>

166. fractally speaking...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 02:27:56 UTC
From: Too funny <guesswho@whereisit.com>
Message-ID: <OIedndAIjffNIgLfRVn-vw@comcast.com>
Source record: 75931

http://offer.ebay.com/ws/eBayISAPI.dll?ViewBids&item=5776486531

167. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 02:54:13 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ezPne.40625$8S5.32080@bignews3.bellsouth.net>
Source record: 75932

And remember - if you're traveling outside the country -
that your license is for US amateur radio
so check with foreign laws regarding operating there
Take some flippers and a snorkle -and have fun
you can get back to hamming when you get back

"John Smith" <assemblywizard@gmail.com> wrote in message
news:enNne.241$Oo2.11905181@news.sisna.com...
> jgboyles:
>
> Planes are a bummer, if you can, do what Nancy Regan suggested--just say
> NO! Very small commuter jumps can be worlds more friendlier...
>
> ...and just dropping by a private airport and checking bulletin boards
> and chatting--if you need hops here in the usa, mexico or canada will
> work if you don't mind the inconvience...
>
> Short of your co/corp having a private plane and granting you
> use--business travel sucks, especially international flight... <frown>
>
> Warmest regards,
> John
>
> <jgboyles@aol.com> wrote in message
> news:1117748324.121263.285370@g44g2000cwa.googlegroups.com...
> > Hi, I haven't flown since 9/11, preferred to drive. I am going on a
> > Cruise to the eastern Caribbean, and want to take my travel antenna
> > (loaded whip with counterpoise) and small hf xcvr. Anybody done this
> > sort of thing on a plane? Would it be better to take the rig on
> > carry-on or in the checked baggage? Or is this a bad idea cause they
> > will arrest me as a suspected terrorist? Ham radios are not on the
> > list of banned items, but I had rather not bother if it will cause any
> > glitch in this endeavor. Thanks for any info.
> > Gary N4AST
> >
>
>

168. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 03:41:52 UTC
From: KU2S <ku2s@arrl.net>
Message-ID: <2sjv91lr7lq00o5qn48vsk5ce7pv1mji60@4ax.com>
Source record: 75933

On Thu, 02 Jun 2005 02:21:35 -0400, Buck <iam@this.site> wrote:

>On Thu, 02 Jun 2005 03:43:07 GMT, KU2S <ku2s@arrl.net> wrote:
>
>>Personally, at 70 watts PEP on a motocycle, I'd be more concerned with
>>RF damage to the operator than I would be damage to any other
>>electronics...
>>Raymond Sirois KU2S
>
>Wouldn't that be closer to 100 w PEP? Icom 706.

The poster said 70, so I went with his numbers. I use an IC-720a, and
certainly don't go two-wheeled mobile with it. Hell, MY Goldwing
doesn't even have a fairing!

Raymond Sirois KU2S
SysOp: The Lost Chord BBS
607-733-5745
telnet://thelostchord.dns2go.com:6000

169. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 04:21:29 UTC
From: "Dave Althoff, Jr." <dalloff@gcfn.org>
Message-ID: <dVQne.715$Ao2.16@newssvr17.news.prodigy.com>
Source record: 75934
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
In rec.roller-coaster Tony Elka <shadowlane@shadowlane.com> wrote:
: In article <429f1cad$1_1@spool9-west.superfeed.net>,
: Cecil Moore <w5dxp@hotmail.com> wrote:
:
: > Deuteronomy 19:16,17
: > "But of the cities of these people, which the Lord thy God
: > doth give thee for an inheritance, thou shalt save alive
: > nothing that breatheth: But thou shalt utterly destroy
: > them; namely, the Hittites, and the Amorites, the Canaanites,
: > and the Perizzites, the Hivites, and the Jebusites; as the
: > Lord thy God hath commanded thee:"
: >
: > Nothing like claiming to have the only right way to
: > pave the path to mass crimes. :-)
:
:
:
:
: Just because it's in the bible doesn't make it the gospel truth.

Deuteronomy is not one of the Gospels. 8-)

That said, the fundamental related question (for a Christian) is this:

Do you believe the Bible to be the "Word of God"? Or the "Words of God"?

There is a profound difference there, and your answer to that question
reveals a lot about your faith.

(It's a mostly rhetorical question: Think about it, but don't answer,
lest you start an even bigger flame-fest.)

--Dave Althoff, Jr.
/-\ _ _ *** Open daily! Ride safely! ***
/XXX\ /X\ /X\_ _ /X\__ _ _ _____
/XXXXX\ /XXX\ /XXXX\_ /X\ /XXXXX\ /X\ /X\ /XXXXX
_/XXXXXXX\__/XXXXX\/XXXXXXXX\_/XXX\_/XXXXXXX\__/XXX\_/XXX\_/\_/XXXXXX
```

170. Re: 50 DB of Seperation = ? Down From 100 W ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 04:22:25 UTC
From: Gary
Message-ID: <igmv91546jtbrugnp20fh7vjgglrst67sm@4ax.com>
Source record: 75935

I"m not sure Chuck, my math with decibels is pretty rusty. I spent a couple of bucks more and got the Daiwa coax switch which has 60 db of attenuation, so I should be safe in that regard. Now if I can just keep from accidently transmitting 100 W into the coax switch when it's got that imput grounded :^)

Thanks for your input.

73 Gary.

On Thu, 02 Jun 2005 08:57:27 -0400, chuck <chuck@nospam.net> wrote:

>Gary, wouldn't 50 db of attenuation reduce 100 watts to
>exactly 0.001 watt?
>
>Chuck
>
>'Doc wrote:
>> Gary,
>> I wouldn't think it would bother the tuner either. But it also
>> depends on what the tuner is connected to, as in antenna, which will
>> also supply some voltage to the tuner...
>> 'Doc
>>
>> PS - Try it, see what happens.

171. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 04:25:40 UTC
From: "Dave Althoff, Jr." <dalloff@gcfn.org>
Message-ID: <8ZQne.718$Ao2.627@newssvr17.news.prodigy.com>
Source record: 75936
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
In rec.roller-coaster cavedweller <jawnwillie@hotmail.com> wrote:
:
: "Steve Carras" <gcarras@aol.com> wrote in message
: news:1117725489.360323.295740@g47g2000cwa.googlegroups.com...
: > WHAT the FUCK relevance does THIS have to do with the topic or
: with the
: > newsgroup's basis?/?????
: >
: Must have come from the thread a couple weeks ago dealing with the
: issue as to whether it was God or Weertman who created the hemi ;)

And here I thought my trip to Pittsburgh last weekend brought up the
question of whether God's best work was done through John Miller or Steve
Okamoto...

--Dave Althoff, Jr. (reading from rec.roller-coaster)
/-\ _ _ *** Open daily! Ride safely! ***
/XXX\ /X\ /X\_ _ /X\__ _ _ _____
/XXXXX\ /XXX\ /XXXX\_ /X\ /XXXXX\ /X\ /X\ /XXXXX
_/XXXXXXX\__/XXXXX\/XXXXXXXX\_/XXX\_/XXXXXXX\__/XXX\_/XXX\_/\_/XXXXXX
```

172. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 04:27:56 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <429fdb74.14123278@news.crosslink.net>
Source record: 75937

On Wed, 01 Jun 2005 09:15:05 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
>information on my web page.

This might very well be the best opportunity that I will ever have to
get in a plug for SmartSmith, which is not a demo but rather a full
featured SmithChart program with extensive Help file and is available
completely free at the following:

Download Site:
http://zaffora.f2o.org/W9DMK/W9dmk.html
High Speed Download Site:
http://64.217.230.66

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

173. Re: Epoxy & microwaves?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 05:35:19 UTC
From: Isaac Wingfield <isw@witzend.com>
Message-ID: <isw-34148B.22351902062005@comcast.dca.giganews.com>
Source record: 75939
Cross-posted to: sci.electronics.basics,sci.electronics.design,sci.electronics.misc,sci.electronics.repair,alt.engineering.electrical,alt.plastic,rec.radio.amateur.antenna

In article <0001HW.BEC3FCAC0022CCC6F02845B0@news.readfreenews.net>,
DaveC <me@privacy.net> wrote:

> On Wed, 1 Jun 2005 22:07:51 -0700, THE-RFI-EMI-GUY** wrote
> (in article <Huwne.89670$w15.67842@tornado.tampabay.rr.com>):
>
> > I calculated the percentage of rod length so affected, versus the
> > portion in freespace and surprisingly was able to pin down that the
> > resonance was where it belonged for the mechanical length of the
> > dipoles. We then trimmed the rods down and were satisfied with the
> > resonance.
>
> I was going to ball-park it by supporting only the centers of the rods,
> thereby minimizing the impact of the stand-offs. The rods are really short (~
> 3 cm) so I'm betting that if I support only the center of each rod, they
> won't be impacted much.

Just got into this thread, but checked back along it to the original
question.

I think epoxies are not too good as UHF dielectrics. I know that
standard "green" epoxy-glass circuit board material is not. You might
try "hot-melt" adhesive, especially the milky-clear ones. They are
likely to be polyethylene or a related compound. Polyethylene is used as
the dielectric in many types of coaxial cable, and is pretty decent even
at UHF.

Isaac

174. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 06:15:43 UTC
From: Randy <theplanters95@aol.com>
Message-ID: <1117779342.929151.110360@g47g2000cwa.googlegroups.com>
Source record: 75940
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil,

Aramaic is a semetic language written in Hebrew script. Arabic is a semetic language that is written in a distinct script. According to the CAL database (which allows translation from English to Aramaic, and a concordance of all Aramaic words), allah is not found. God is found.

Allah is an Arabic word which orginial referred to a local tribal god. Mohommad adapted this name in his development of Islam. If you have never read the development and history of Islam, it is most interesting.

You are right in that Yahweh and Jehovah are the same. You are wrong in that Allah is Jehovah. Jehovah and Yahweh are used in both the Hebrew Scriptures (Old Testement) and the Christian Scriptures (Old and New Test.), They both translate a Hebrew word that has no vowels. In respect of Jehovah, the Jews would not pronounce his name or write it with vowels. Most english translation use LORD to translate this Hebrew word.

If you look at the prayers of Jesus, they are addressed to our Father. He did not use arabiac allah in his prayers.

Jews and Muslims are "step brothers" with sibling revalry.

Remember that you can love and accept a person without agreeing with there views.

Pastor Randy,

175. Re: 50 DB of Seperation = ? Down From 100 W ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 06:38:12 UTC
From: Adair Winter <drummer_adair@mail.com>
Message-ID: <oVSne.5320$Ag1.3337@newssvr12.news.prodigy.com>
Source record: 75941

"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>
> I"m not sure Chuck, my math with decibels is pretty rusty. I spent a
> couple of bucks more and got the Daiwa coax switch which has 60 db of
> attenuation, so I should be safe in that regard. Now if I can just
> keep from accidently transmitting 100 W into the coax switch when it's
> got that imput grounded :^)

Personally I think you are splitting hairs... on something like a tuner it
should take the power as little as it is.

Adair - KD5DYP

176. Re: 50 DB of Seperation = ? Down From 100 W ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 10:52:53 UTC
From: Gary
Message-ID: <8id0a1p8pq4jgv0f8duh3irtmbbhfg814k@4ax.com>
Source record: 75942

On Fri, 03 Jun 2005 06:38:12 GMT, "Adair Winter"
<drummer_adair@mail.com> wrote:

>"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>>
>> I"m not sure Chuck, my math with decibels is pretty rusty. I spent a
>> couple of bucks more and got the Daiwa coax switch which has 60 db of
>> attenuation, so I should be safe in that regard. Now if I can just
>> keep from accidently transmitting 100 W into the coax switch when it's
>> got that imput grounded :^)
>
>Personally I think you are splitting hairs... on something like a tuner it
>should take the power as little as it is.
>
>Adair - KD5DYP
>

I Probably am, thanks for your input.

73 Gary

177. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:00:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a04730$1_2@spool9-west.superfeed.net>
Source record: 75943
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Dave Althoff, Jr. wrote:
> Do you believe the Bible to be the "Word of God"? Or the "Words of God"?

Actually, the word or words of "Elohim", i.e. Gods.
Elohim is *PLURAL*. Yahweh was one of the Elohim.
--
73, Cecil http://www.qsl.net/w5dxp

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178. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:01:47 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <PEXne.2$nl7.105576@news.sisna.com>
Source record: 75944

I should have pointed out, a T-Match requires a dipole, a few seem to
miss I had previously noted this is a monopole in question... a T-Match
would unbalance the RF RADIATION PATTERN of a dipole in the same way a
gamma does a monopole, there would be no gain from using a T-Match in
place of a gamma, EVEN if it could be done here...
I suppose you might be able to mount the bottom of T-Match on the mast
holding the monopole--but then, that is another experiment for another
day...

Warmest regards,
John
"John Smith" <assemblywizard@gmail.com> wrote in message
news:yPOne.249$Db3.12477576@news.sisna.com...
> Dale:
>
> Yes, someone injected a T-Match in here, but no real interest in a
> T-Match...
>
> Warmest regards,
> John
>
> "Dale Parfitt" <par@parelectronics.com> wrote in message
> news:ODOne.7695$vK5.2782@trnddc03...
>>
>> "Dave Platt" <dplatt@radagast.org> wrote in message
>> news:119v2otpe9mt6ba@corp.supernews.com...
>>> In article <tJLne.13595$Vm4.9195@trnddc01>,
>>> Dale Parfitt <par@parelectronics.com> wrote:
>>>
>>> >How can a T match have show a bias- it is balanced. Virtually all
>>> >the
>>> >serious EME arrays use this matching technique and show the major
>>> >lobe
>> dead
>>> >off the front.
>>>
>>> Are they feeding directly off of the coax, or do they use a halfwave
>>> (or other) balun between the coax and the T?
>>>
>> Check out any of the antenna handbooks for a Tee match. The driven
>> element
>> is insulated from the boom and split in the middle. Each side of the
>> Tee
>> taps out on the D.E. at a point yielding a 200 Ohm balanced feed. A

>> 4:1
>> coaxial balun is used to transform the 200 Ohms balanced down to 50
>> Ohms
>> unbalanced.
>>
>> Dale W4OP
>>
>>
>
>

179. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:10:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qNXne.3$nl7.105576@news.sisna.com>
Source record: 75945
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

One thing I know God has, it is a sense of humor (he made us, didn't he)
he gave man something I have not seen in any other animal--this sense of
humor. Indeed, it is the only thing which separates us from the
non-thinking animals... <grin>

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a04730$1_2@spool9-west.superfeed.net...
> Dave Althoff, Jr. wrote:
>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>> God"?
>
> Actually, the word or words of "Elohim", i.e. Gods.
> Elohim is *PLURAL*. Yahweh was one of the Elohim.
> --
> 73, Cecil http://www.qsl.net/w5dxp
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180. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:36:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a04fb5$1_2@spool9-west.superfeed.net>
Source record: 75946
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Randy wrote:
> Aramaic is a semetic language written in Hebrew script. Arabic is a
> semetic language that is written in a distinct script. According to
> the CAL database (which allows translation from English to Aramaic, and
> a concordance of all Aramaic words), allah is not found. God is found.

Do you really think that Jesus spoke English? Modern Aramaic has
evolved over the last 2000 years. Words have crept in from other
languages. I'm willing to bet that Jesus never uttered the Old
English word "God" during his entire life.

"Jet" is probably also in the Aramaic dictionary. Did Jesus use
the word "jet"?

> You are right in that Yahweh and Jehovah are the same. You are wrong
> in that Allah is Jehovah.

So do you believe that Yahweh is going to send the present day
Jewish people to a hell they don't even believe in? (Rhetorical)

Christianity and Islam both evolved from Judaism. Yahweh, Jehovah,
and Allah are all individual names for Elohim, which is plural.
What name does the Arabic bible use for the creator?
--
73, Cecil http://www.qsl.net/w5dxp

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181. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:43:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a05153$1_2@spool9-west.superfeed.net>
Source record: 75947

John Smith wrote:
> I should have pointed out, a T-Match requires a dipole, a few seem to
> miss I had previously noted this is a monopole in question...

Is there any difference in a 1/2WL monopole element and a
1/2WL dipole element sans the T-Match? I can't think of any.
--
73, Cecil http://www.qsl.net/w5dxp

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182. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:47:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a05258$1_2@spool9-west.superfeed.net>
Source record: 75949
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

John Smith wrote:
> One thing I know God has, it is a sense of humor (he made us, didn't he)
> he gave man something I have not seen in any other animal--this sense of
> humor.

On The Discovery Channel, I saw a Chimpanzee using sign language
and telling a joke.
--
73, Cecil http://www.qsl.net/w5dxp

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183. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:49:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7pjl2rlb1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75948

> Reg, you've aroused my curiosity on three points:
>
> Why would you use 'Smith Chart' and 'anger' in the same sentence?
>
==========
Just a figure of speech. "Anger" suggests setting about a job with
energy, determination and a sense of purpose. As distinct from mere
amusement.
==========
> Why are there any frequencies where the Smith Chart is misleading
and useless?
> Which frequencies are they?
==========
Depending on the size of the errors one is prepared to tolerate and on
the calculated parameter of interest -

Frequencies at which line attenuation per wavelength is not small.
Frequencies at which Zo is not purely real.
Frequencies at which CR is not equal to LG.
Frequencies at which the reflection coefficient is greater than 1.0

Comment : Zo is never purely real. CR is never equal to LG.
And the chart is good only to 2-digit accuracy anyway.

But Walt, you already know all this. Have you ever tried the Jones
Chart? ;o)
==========
>
> How can you say the Smith Chart is misleading and useless if you've
never used
> one, and never inspected one for more than a minute?
>
> Walt, W2DU
>
==========

No problem! Worked it out for myself many years ago. Some years ago
I introduced to this newsgroup the excellent book "Transmission Lines"
by Robert A. Chipman, 1968. It aroused some interest. Some of you
obtained a copy.

It has a whole chapter devoted to the Smith Chart and fully describes
its limitations, imperfections, short-comings and approximations.

But the reason Chipman included the chapter was because of the great
savings in labour and time (in HIS day and age) when doing approximate

calculations on short, low loss, HF transmission lines such as antenna feedlines for which it was designed. Which is all radio amateurs ever use it for. Hardly any amateurs ever use it in anger. It has other applications.

I first programmed a computer for work on transmission lines around 1960. At frequencies between 0.1 Hz and 1 MHz, frequencies at which nobody would dream of using a Smith Chart. So I never became addicted to it.

Reg.

184. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:50:50 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <NmYne.9$0z1.424059@news.sisna.com>
Source record: 75953

Not that I am aware of, only thing is there is no where to "hang" that
T-Match--well, the mast I mentioned... and the fact the monopole is
absent the bottom half of a dipole element... this is especially
notable if the bottom end of the monopole is sitting on the ground...
that tends to remove all confusion... <grin>

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a05153$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> I should have pointed out, a T-Match requires a dipole, a few seem to
>> miss I had previously noted this is a monopole in question...
>
> Is there any difference in a 1/2WL monopole element and a
> 1/2WL dipole element sans the T-Match? I can't think of any.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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185. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 12:55:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2rYne.10$oO1.430174@news.sisna.com>
Source record: 75972
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil:

... nor warned the harlots of giving bl*w j*bs to the J*hns!!!! (if you
don't know what I just said--you might be Jesus!!!) <grin>

Warmest regards,
John (baptismicly speaking)

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a04fb5$1_2@spool9-west.superfeed.net...
> Randy wrote:
>> Aramaic is a semetic language written in Hebrew script. Arabic is a
>> semetic language that is written in a distinct script. According to
>> the CAL database (which allows translation from English to Aramaic,
>> and
>> a concordance of all Aramaic words), allah is not found. God is
>> found.
>
> Do you really think that Jesus spoke English? Modern Aramaic has
> evolved over the last 2000 years. Words have crept in from other
> languages. I'm willing to bet that Jesus never uttered the Old
> English word "God" during his entire life.
>
> "Jet" is probably also in the Aramaic dictionary. Did Jesus use
> the word "jet"?
>
>> You are right in that Yahweh and Jehovah are the same. You are wrong
>> in that Allah is Jehovah.
>
> So do you believe that Yahweh is going to send the present day
> Jewish people to a hell they don't even believe in? (Rhetorical)
>
> Christianity and Islam both evolved from Judaism. Yahweh, Jehovah,
> and Allah are all individual names for Elohim, which is plural.
> What name does the Arabic bible use for the creator?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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186. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 13:00:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <LvYne.11$321.409715@news.sisna.com>
Source record: 75951

Reg:

Dr. Jones was in heavy competition with my father (Mr. Smith), before my dad developed the "Smith Chart." Darn "Jones Chart" never was any good! <grin>

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d7pjl2rlb1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> Reg, you've aroused my curiosity on three points:
>>
>> Why would you use 'Smith Chart' and 'anger' in the same sentence?
>>
> ==
> Just a figure of speech. "Anger" suggests setting about a job with
> energy, determination and a sense of purpose. As distinct from mere
> amusement.
> ==
>> Why are there any frequencies where the Smith Chart is misleading
> and useless?
>> Which frequencies are they?
> ==
> Depending on the size of the errors one is prepared to tolerate and on
> the calculated parameter of interest -
>
> Frequencies at which line attenuation per wavelength is not small.
> Frequencies at which Zo is not purely real.
> Frequencies at which CR is not equal to LG.
> Frequencies at which the reflection coefficient is greater than 1.0
>
> Comment : Zo is never purely real. CR is never equal to LG.
> And the chart is good only to 2-digit accuracy anyway.
>
> But Walt, you already know all this. Have you ever tried the Jones
> Chart? ;o)
> ==
>>
>> How can you say the Smith Chart is misleading and useless if you've
> never used
>> one, and never inspected one for more than a minute?
>>
>> Walt, W2DU
>>

> ==
>
> No problem! Worked it out for myself many years ago. Some years ago
> I introduced to this newsgroup the excellent book "Transmission Lines"
> by Robert A. Chipman, 1968. It aroused some interest. Some of you
> obtained a copy.
>
> It has a whole chapter devoted to the Smith Chart and fully describes
> its limitations, imperfections, short-comings and approximations.
>
> But the reason Chipman included the chapter was because of the great
> savings in labour and time (in HIS day and age) when doing approximate
> calculations on short, low loss, HF transmission lines such as antenna
> feedlines for which it was designed. Which is all radio amateurs ever
> use it for. Hardly any amateurs ever use it in anger. It has other
> applications.
>
> I first programmed a computer for work on transmission lines around
> 1960. At frequencies between 0.1 Hz and 1 MHz, frequencies at which
> nobody would dream of using a Smith Chart. So I never became addicted
> to it.
> ----
> Reg.
>
>

187. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 13:02:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <YxYne.12$AK.322689@news.sisna.com>
Source record: 75954

... err, not to be confused with a "dipole beam", which is better
referred to as a "two element beam" to remove all confusion... <grin>

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:NmYne.9$0z1.424059@news.sisna.com...
> Not that I am aware of, only thing is there is no where to "hang" that
> T-Match--well, the mast I mentioned... and the fact the monopole is
> absent the bottom half of a dipole element... this is especially
> notable if the bottom end of the monopole is sitting on the ground...
> that tends to remove all confusion... <grin>
>
> Warmest regards,
> John
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42a05153$1_2@spool9-west.superfeed.net...
>> John Smith wrote:
>>> I should have pointed out, a T-Match requires a dipole, a few seem
>>> to miss I had previously noted this is a monopole in question...
>>
>> Is there any difference in a 1/2WL monopole element and a
>> 1/2WL dipole element sans the T-Match? I can't think of any.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
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>
>

188. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 13:05:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <KAYne.13$f_2.477309@news.sisna.com>
Source record: 75952
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil:

I expected more of you than to be fooled so easily--shame on you man!!!
That was my brother (a worse jokester than even myself)--he went without
shaving for a couple of weeks to do that documentary...
<innocent-smile>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a05258$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> One thing I know God has, it is a sense of humor (he made us, didn't
>> he) he gave man something I have not seen in any other animal--this
>> sense of humor.
>
> On The Discovery Channel, I saw a Chimpanzee using sign language
> and telling a joke.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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189. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:01:39 UTC
From: Buck <iam@this.site>
Message-ID: <7lo0a1dvfjou40pqnkvh54gn7u030dm960@4ax.com>
Source record: 75950

On Thu, 02 Jun 2005 12:33:44 GMT, Bob Miller <NOSPAM@neosoft.com>
wrote:

>On Thu, 02 Jun 2005 02:11:44 -0400, Buck <iam@this.site> wrote:
>
>
>>
>>Each radio has it's own finger-print that the FCC can read. Many
>>times, they can tell the make and model by the signature before ever
>>seeing the rig. I would think that the most popular HF mobile rig
>>ever is recognized by the FCC.
>
>Rig fingerprint? How does that work?
>
>bob
>k5qwg
>

I don't know, the FCC mentions them in letters to the owners of the
rigs they are requiring inspection on.

--
73 for now
Buck
N4PGW

190. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:07:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a06528$1_2@spool9-west.superfeed.net>
Source record: 75955

Reg Edwards wrote:
> Depending on the size of the errors one is prepared to tolerate and on
> the calculated parameter of interest -
>
> Frequencies at which line attenuation per wavelength is not small.

There's an attenuation scale on the bottom. Doesn't it just
result in an SWR spiral instead of an SWR circle?
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

191. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:11:41 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <xyZne.1810$wy1.92@newssvr13.news.prodigy.com>
Source record: 75956
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
Cecil Moore wrote:
> John Smith wrote:
>
>> One thing I know God has, it is a sense of humor (he made us, didn't
>> he) he gave man something I have not seen in any other animal--this
>> sense of humor.
>
>
> On The Discovery Channel, I saw a Chimpanzee using sign language
> and telling a joke.

That was Bush.
73,
Tom Donaly, KA6RUH
```

192. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:19:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <%FZne.24$8q4.573492@news.sisna.com>
Source record: 75957
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Hmmm, I wanted my brother to get the credit!!! LOL!

Warmest regards,
John

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:xyZne.1810$wy1.92@newssvr13.news.prodigy.com...
> Cecil Moore wrote:
>> John Smith wrote:
>>
>>> One thing I know God has, it is a sense of humor (he made us, didn't
>>> he) he gave man something I have not seen in any other animal--this
>>> sense of humor.
>>
>>
>> On The Discovery Channel, I saw a Chimpanzee using sign language
>> and telling a joke.
>
> That was Bush.
> 73,
> Tom Donaly, KA6RUH

193. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:28:38 UTC
From: "Daniel J. Stern" <dastern@127.0.0.1>
Message-ID: <Pine.GSO.4.58.0506031028180.23190@alumni.engin.umich.edu>
Source record: 75958
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Fri, 3 Jun 2005, Tom Donaly wrote:

> Cecil Moore wrote:

> > On The Discovery Channel, I saw a Chimpanzee using sign language and
> > telling a joke.

> That was Bush.

No, Bush was using sign language and *being* a joke. It's different.

194. Free coaxial cable & connector catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:36:11 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <KUZne.6976$Wr.4000@fed1read04>
Source record: 75959
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap

High quality, but low cost, coaxial cable, connectors & adapters. Call 949 481 3154 or see www.aaarfproducts.com or email sales@aaarfproducts to receive your full line catalog.

No minimum order.

No handling charges.

Paypal & credit cards accepted.

195. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:43:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a06d78$1_1@spool9-west.superfeed.net>
Source record: 75960
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tom Donaly wrote:

> Cecil Moore wrote:
>> On The Discovery Channel, I saw a Chimpanzee using sign language
>> and telling a joke.
>
> That was Bush.

Come to think of it, he was rather Bushy.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

196. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 14:49:58 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <r6_ne.332$mZ2.86@fe07.lga>
Source record: 75961

"John Smith" <assemblywizard@gmail.com> wrote in message
news:LvYne.11$321.409715@news.sisna.com...

> Dr. Jones was in heavy competition with my father (Mr. Smith), before my dad
> developed the "Smith Chart." Darn "Jones Chart" never was any good! <grin>
>
> Warmest regards,
> John

John, are you telling us that Phillip H. Smith was your Father? I have a letter from him dated in 1972, giving me permission to publish his Chart in one of my articles in QST.

Walt, W2DU

197. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:14:51 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Lt_ne.1723$rt3.843@fe03.lga>
Source record: 75962

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d7pjl2rlb1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> Reg, you've aroused my curiosity on three points:
>>
>> Why would you use 'Smith Chart' and 'anger' in the same sentence?
>>
> ==
> Just a figure of speech. "Anger" suggests setting about a job with
> energy, determination and a sense of purpose. As distinct from mere
> amusement.

And I thought I understood the English language. Obviously I miss some of the
ways you Brits use it. Thanks for the clarification--makes sense now.

> ==
>> Why are there any frequencies where the Smith Chart is misleading
> and useless?
>> Which frequencies are they?
> ==
> Depending on the size of the errors one is prepared to tolerate and on
> the calculated parameter of interest -
>
> Frequencies at which line attenuation per wavelength is not small.
> Frequencies at which Zo is not purely real.
> Frequencies at which CR is not equal to LG.
> Frequencies at which the reflection coefficient is greater than 1.0
>
> Comment : Zo is never purely real. CR is never equal to LG.
> And the chart is good only to 2-digit accuracy anyway.
>
> But Walt, you already know all this. Have you ever tried the Jones
> Chart? ;o)

You're right, Reg, I do know this, but as Cecil has just now beat me to the
punch, the attenuation scale that goes with the Smith Chart allows the complex
impedance loci to spiral inward with line length for any given value of line
attenuation. The loci is a circle only for lossless lines, but you already know
this.
> ==
> How can you say the Smith Chart is misleading and useless if you've
never used
> one, and never inspected one for more than a minute?
>
> Walt, W2DU
>

==========
>
> No problem! Worked it out for myself many years ago. Some years ago
> I introduced to this newsgroup the excellent book "Transmission Lines"
> by Robert A. Chipman, 1968. It aroused some interest. Some of you
> obtained a copy.

I used the Chipman tome since around 1969, shortly after it was released. Interesting that you introduced it to this NG in 1968, but I didn't learn of this NG until the 1990s. I have two copies, one at each of my homes in Michigan and Florida.

> It has a whole chapter devoted to the Smith Chart and fully describes
> its limitations, imperfections, short-comings and approximations.
>
> But the reason Chipman included the chapter was because of the great
> savings in labour and time (in HIS day and age) when doing approximate
> calculations on short, low loss, HF transmission lines such as antenna
> feedlines for which it was designed. Which is all radio amateurs ever
> use it for. Hardly any amateurs ever use it in anger. It has other
> applications.
>
> I first programmed a computer for work on transmission lines around
> 1960. At frequencies between 0.1 Hz and 1 MHz, frequencies at which
> nobody would dream of using a Smith Chart. So I never became addicted
> to it.
> ----
> Reg.

Very interesting, Reg, but of course I knew of your many years of work with undersea lines, so use of computers around 1960 doesn't surprise me. A little bird told me one day that those lines aren't lossless. But, shucks, I coulda found that out if I'd only dug deeper into Chipman, couldn't I?

Thanks for the informative response, Reg,

Walt

198. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:14:51 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Ot_ne.31$H41.416870@news.sisna.com>
Source record: 75963

Walter:

Next you will be wanting the secret of my fathers long life--and how he
was able to do it all before the discovery of Viagra!!!
<innocent-look-and-a-chuckle>

Warmest regards,
John
"Walter Maxwell" <walt@w2du.com> wrote in message
news:r6_ne.332$mZ2.86@fe07.lga...
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:LvYne.11$321.409715@news.sisna.com...
>
>> Dr. Jones was in heavy competition with my father (Mr. Smith), before
>> my dad developed the "Smith Chart." Darn "Jones Chart" never was any
>> good! <grin>
>>
>> Warmest regards,
>> John
>
> John, are you telling us that Phillip H. Smith was your Father? I have
> a letter from him dated in 1972, giving me permission to publish his
> Chart in one of my articles in QST.
>
> Walt, W2DU
>

199. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:16:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2is0a11k467b1ekb6q3q593apml1ubhd34@4ax.com>
Source record: 75964

On Fri, 3 Jun 2005 10:49:58 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>John, are you telling us that Phillip H. Smith was your Father?

Hi Walt,

I'm sorry to have the distinction of telling you that you have now
twice tried to bite at air in two postings to the same thread.
[Outlook Express is a jinx for you to use!]

There is no "John Smith" corresponding to this group. Brett uses this
"handle" for whatever reason, but certainly not because he thinks that
his veil is impenetrable.

73's
Richard Clark, KB7QHC

200. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:25:03 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <kD_ne.1725$rt3.1391@fe03.lga>
Source record: 75965

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Ot_ne.31$H41.416870@news.sisna.com...
> Walter:
>
> Next you will be wanting the secret of my fathers long life--and how he was
> able to do it all before the discovery of Viagra!!!
> <innocent-look-and-a-chuckle>
>
> Warmest regards,
> John
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:r6_ne.332$mZ2.86@fe07.lga...
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:LvYne.11$321.409715@news.sisna.com...

John, your father was a genious. His pioneering in the field of wave guides at Bell Labs is legend. I also have his book, "Electronic Applications of the Smith Chart," from which I drew many concepts for use in Reflections to disprove prevalent myths concerning SWR and other mechanics of reflections. Consequently, there are many references to his book in mine, including two entire chapters to aid in learning how to use his Chart.

Walt, W2DU

201. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:30:51 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <KI_ne.1726$rt3.1371@fe03.lga>
Source record: 75967

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2is0a11k467b1ekb6q3q593apml1ubhd34@4ax.com...
> On Fri, 3 Jun 2005 10:49:58 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>>John, are you telling us that Phillip H. Smith was your Father?
>
> Hi Walt,
>
> I'm sorry to have the distinction of telling you that you have now
> twice tried to bite at air in two postings to the same thread.
> [Outlook Express is a jinx for you to use!]
>
> There is no "John Smith" corresponding to this group. Brett uses this
> "handle" for whatever reason, but certainly not because he thinks that
> his veil is impenetrable.
>
> 73's
> Richard Clark, KB7QHC

Holy Cow, Richard, you've just diagnosed the pain in my jaw. Silly me. I guess that means that the 'John Smith' we're corresponding with came over on the Mayflower.

Walt, W2DU

202. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:31:47 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <EG_ne.39164$NZ1.19002@fe09.lga>
Source record: 75966

I have done assembly language programming on many platforms, from 1620s to Intel to zSeries. (The most fun was the 7090 series; the least fun was Intel.) The concept of assembly programming to obtain the last ounce of performance is becoming questionable, at least on mainframes. Best performance, when considering superscalar operation, pipelining, cache boundaries, and virtual memory translation boundaries (TLBs on mainframes) no longer involves straightforward instruction streams, but needs to interleave all these other consderations that are definitely not intuitive to an assembly programmer. Well-written compilers can usually do a better job. Of course, the compiler (or optimizer that follows the compiler) must be very well adjusted to the hardware that will execute the program.

I am not a COBOL programmer. However, I do appreciate a few attributes of COBOL. For example,

- It allows creation of in-program "subroutines" with full access to the program's symbol table. (I.e., use the PERFORM verb.) Very few other languages (other than assembler, of course) allow this.
- It deals with strings as primitive elements, something the C does not do. When running on hardware (such as mainframes) that also deals with strings as basic elements, this allows for much more straightforward use of the instruction set. (The requirement for C programs to frequently chase the end of character arrays to deal with strings, and the common need to reserve a character (x'00') to mark the end of a string, has always seemed rather primitive to me. Of course, it was needed on the hardware used for early C---it is unfortunate that the language never progressed past this hardware design limitation.)
-The average COBOL program is almost certainly easier to maintain (years later, by another programmer) than the average C program. Of course, one can write obscure code in any language or wonderfully clear code in any language, but I am speaking of existing, average code. (The extreme example in this category was APL. Even the original programmer could often not understand his own code after being away from it for a few months. It was a wonderful, powerful language, but the average program was utterly unmaintainable in typical production environments (in my opinion).)

I have noticed that major applications written in C (or C++) appear to consume considerably more processor power and considerably more memory than applications written in COBOL (or assembler, or PLI, or Fortran). A 1MB application in COBOL is "large" while a 1MB application in C is almost "trivial". I know a lot of this is due to the inclusion Windows libraries (DLLs), etc, etc, and the different nature of the applications.

There is seldom a winner in religious "discussions" and I suspect this thread is about to die.

Bill
W2WO

203. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 15:52:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vet0a1t2003bc4i9a948t89p1240kat44v@4ax.com>
Source record: 75968

On Fri, 3 Jun 2005 11:14:51 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>>> Why would you use 'Smith Chart' and 'anger' in the same sentence?
>>>
>> ==
>> Just a figure of speech. "Anger" suggests setting about a job with
>> energy, determination and a sense of purpose. As distinct from mere
>> amusement.
>
>And I thought I understood the English language. Obviously I miss some of the
>ways you Brits use it. Thanks for the clarification--makes sense now.

Hi Walt,

I won't accuse you biting air on this one, again, Reg is in his usual
yarn spinning and this time both of you evidence the myth of those who
"use" a language believing they "know" that language. Brits are
terrible exemplars of best English usage. So are Americans, but they
rarely behave like they own the language they dominate (that is
changing as we write - the rest of the world is going to soon claim
that crown).

Reg has in fact fallen off the Anglo-Saxon wagon (or should I say
cart?) by trying to fit a new definition to an Old French import to
our common language. In a way, he has succumbed to the worst traits
of Americanizing English through cavalier redefinition.

Anger has always (to English speakers at least) meant just what you
thought it to mean - relating directly to the sense of pain or
affliction. Somehow Reg wants to convert those rather daily
experienced negative associations into something bright and cheerful.
Perhaps he has been reading too many missives from our White House's
pronouncements on the conduct of the war....

Anger comes by way of the Old French anquisse, or the Modern French
angoisse, derived from the Latin augustia meaning compression. Most
folks do not smile in anticipation of anguish becoming their "sense of
purpose." Not unless you are a fundamentalist perhaps.

Who would'a' thunk that this thread could be such a trove of language
instruction? ;-)

73's
Richard Clark, KB7QHC

204. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 16:05:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6fv0a15qp1uf5q9scgnouegbum1u27mdgo@4ax.com>
Source record: 75969

On Fri, 03 Jun 2005 08:52:00 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Most
>folks do not smile in anticipation of anguish becoming their "sense of
>purpose." Not unless you are a fundamentalist perhaps.

From my copy of the "Concise Dictionary of the English Language"
(available at project Gutenberg):

Angre ... affliction, sorrow, wrath, pain, inflammation ... by way of
the Icelandic angr.

Angren ... to annoy, injure, make angry ... by way of the Icelandic
angra.

Angwisch ... anguish

anguyssh ... angoise

anguise ... anguisse ... angustia, tightness from angere, to squeeze.

Amusingly enough, every one of these terms encountered in line are
directly following:

Angles ... the English, the people of 'Angul' a district of Holstein
... Englis.

What a larf (or for the rest of the English speaking world, Hoot).

73's
Richard Clark, KB7Q aich C

205. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 16:08:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Wf%ne.35$Uz.953388@news.sisna.com>
Source record: 75971

Bill:

I actually do not stand at complete odds with you...
However, "C" can be viewed as a "superset" of assembly...
Or, assembly can be viewed as a subset of "C"...
I am aware of no "C" compiler which refuses to accept assembly language instructions--as standard... I am aware you might have to set compiler directives to allow or disallow this as you see fit...
For one who declared, right from the start, that religious wars on syntax are exactly what I wish to avoid... I seem drawn like a moth to a flame (or something like that)...
However, since we have gotten here, to this point, let me go further, if I would choose to write in COBOL syntax--I would still keep my "C" compiler and linker---and, would use the #define and statement, and macros in "C" to remap all of the COBOL syntax I would use, to "C"....
I could then go about my merry business and write in "COBOL", when the "C" compiler seen the source, it would translate on the fly and produce "C" object code...
if I was not aware of what had been done--I could honestly be left thinking I was truly using a legit COBOL compiler/linker, I could do the same with pascal--even basic should I choose... attempt to do the reverse with those languages and you will see failure...

... in my humble, personal opinion, you can develop a million more syntax's, I am just left to sit and wonder why...

Warmest regards,
John

"Bill Ogden" <wogden@attglobal.net> wrote in message news:EG_ne.39164$NZ1.19002@fe09.lga...
>I have done assembly language programming on many platforms, from 1620s
>to
> Intel to zSeries. (The most fun was the 7090 series; the least fun
> was
> Intel.) The concept of assembly programming to obtain the last ounce
> of
> performance is becoming questionable, at least on mainframes. Best
> performance, when considering superscalar operation, pipelining, cache
> boundaries, and virtual memory translation boundaries (TLBs on
> mainframes)
> no longer involves straightforward instruction streams, but needs to
> interleave all these other consderations that are definitely not
> intuitive
> to an assembly programmer. Well-written compilers can usually do a

> better
> job. Of course, the compiler (or optimizer that follows the compiler)
> must
> be very well adjusted to the hardware that will execute the program.
>
> I am not a COBOL programmer. However, I do appreciate a few
> attributes of
> COBOL. For example,
>
> - It allows creation of in-program "subroutines" with full access
> to the
> program's symbol table. (I.e., use the PERFORM verb.) Very few other
> languages (other than assembler, of course) allow this.
> - It deals with strings as primitive elements, something the C does
> not
> do. When running on hardware (such as mainframes) that also deals
> with
> strings as basic elements, this allows for much more straightforward
> use of
> the instruction set. (The requirement for C programs to frequently
> chase
> the end of character arrays to deal with strings, and the common need
> to
> reserve a character (x'00') to mark the end of a string, has always
> seemed
> rather primitive to me. Of course, it was needed on the hardware used
> for
> early C---it is unfortunate that the language never progressed past
> this
> hardware design limitation.)
> -The average COBOL program is almost certainly easier to maintain
> (years
> later, by another programmer) than the average C program. Of course,
> one
> can write obscure code in any language or wonderfully clear code in
> any
> language, but I am speaking of existing, average code. (The extreme
> example
> in this category was APL. Even the original programmer could often not
> understand his own code after being away from it for a few months. It
> was a
> wonderful, powerful language, but the average program was utterly
> unmaintainable in typical production environments (in my opinion).)
>
> I have noticed that major applications written in C (or C++) appear to
> consume considerably more processor power and considerably more memory
> than
> applications written in COBOL (or assembler, or PLI, or Fortran). A
> 1MB
> application in COBOL is "large" while a 1MB application in C is almost

> "trivial". I know a lot of this is due to the inclusion Windows
> libraries
> (DLLs), etc, etc, and the different nature of the applications.
>
> There is seldom a winner in religious "discussions" and I suspect this
> thread is about to die.
>
> Bill
> W2WO
>
>

206. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 16:15:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n201a1hk86qcsdbdg8j99mk3ibvigobsg9@4ax.com>
Source record: 75970
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Fri, 3 Jun 2005 09:03:29 -0700, DaveC <me@privacy.net> wrote:

>What point is considered the focus point of the horn. The feed point for the
>dish is calculated and known, but I'm not sure what point of the feed horn to
>considered when aligning the horn to the dish.

Hi Dave,

A horn is an impedance matching device, not a lens. It is generally
pointed in the direction of desired maximum radiation. If you want to
employ what appears to be the equivalent to your application of focus,
then its "throat" is the term you should be interested in (at least
from the common literature on this subject - a subtle hint, in spite
of your protestations, on how to google this).

The plane of the throat is usually placed at the focus of the
truncated parabaloid (otherwise known as the dish) and orthogonal to
the parabaloid's major axis (the line that points in the direction of
the opening's maximum radiation). Hence both are collinear (and of
necessity, the horn blocks some of the available radiation), unless
this is an off-center feed. In such a case, the math becomes a little
more involved (but all structures conform to these usages).

73's
Richard Clark, KB7QHC

207. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 16:24:16 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Vu%ne.37$Vr.907317@news.sisna.com>
Source record: 75973

Walter:

I thought you were just playing on a bit with my joke... I am sorry...
Let me explain, Reg made reference to the venerable "Jones Chart" in a
previous post in this thread--it was too temping a joke to leave alone
and I picked up upon it--I make no real claim my father had any hand in
the creation of the smith chart--again, I am sorry, but I thought you
just playing along--to tell you the truth, I am still not absolutely
sure you are not--you still might be... <grin>

(the only hand my father played in all this was to teach me, "Take it
like a man son!!! ... and blame it on a Brit!!! ... poor Reg... <grin>)
Warmest regards,
John

"Walter Maxwell" <walt@w2du.com> wrote in message
news:KI_ne.1726$rt3.1371@fe03.lga...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:2is0a11k467b1ekb6q3q593apml1ubhd34@4ax.com...
>> On Fri, 3 Jun 2005 10:49:58 -0400, "Walter Maxwell" <walt@w2du.com>
>> wrote:
>>
>>>John, are you telling us that Phillip H. Smith was your Father?
>>
>> Hi Walt,
>>
>> I'm sorry to have the distinction of telling you that you have now
>> twice tried to bite at air in two postings to the same thread.
>> [Outlook Express is a jinx for you to use!]
>>
>> There is no "John Smith" corresponding to this group. Brett uses
>> this
>> "handle" for whatever reason, but certainly not because he thinks
>> that
>> his veil is impenetrable.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> Holy Cow, Richard, you've just diagnosed the pain in my jaw. Silly me.
> I guess that means that the 'John Smith' we're corresponding with came
> over on the Mayflower.
>
> Walt, W2DU

>

208. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 16:45:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7q1eo$go4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75974

Regarding the long-lasting, 67-years old, love affair with the Smith Chart.

Where there's Love there's Beauty.

The beauty of a Smith Chart derives from the underlying Mathematics. Mathematics is pure intellectual beauty.

In this case the underlying functions and their inverses are the Complex Hyperbolic Functions like Sinh, Cosh and Tanh which Victorian engineers were familiar with. The behaviour of the early telegraph, telephone and power lines was exactly described by such functions. The maths had been quietly waiting for many years for transmission lines to
be invented.

In the absence of computers, engineers soon got fed up with designing transmission lines, solving complex hyperbolic equations with the aid of log tables and slide rules, and began to use graphical methods in the form of charts.

Now, complex hyperbolic functions are 3 dimensional things. They have two linear dimensions and angles. They cannot be represented on a flat paper chart. They need a whole stack of charts. Such stacks of charts were available round about the Boer War. So whilst the British Army was setting up concentration camps in South Africa, phone engineers were busy in their factory offices worrying about SWR on power and long-distance telephone lines.

The Victorian multi-dimensional charts remained in use through the days of VLF and LF radio and for 5 decades until the advent of computers. Bear in mind the charts were just a more convenient means of accessing data than from books of mathematica tables, although they were of much lower precision.

See if you can find it - "A Chart Atlas of Complex Hyperbolic Functions", A. E. Kennelly, Harvard University, 1914.

Worldwide HF radio rapidly expanded from the early 1930's. In 1938 a certain Mr Smith noticed that at HF and higher frequencies, for rough and ready calculations he had to use only one of the stack of charts. This particular chart corresponded to the case of a lossless line and when Zo was purely resistive. No real lines have zero loss or have a purely resistive Zo. But practical lines have a sufficiently low attenuation per wavelength and a Zo whose angle converges towards zero with increasing frequency, for a single chart on a flat sheet of paper to deal with sufficient accuracy calculations at frequencies down to

LF. So Mr Smith exercised his artistic talents to produce the chart we
are familiar with. Or at least which we have heard about.

Reg.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d7pjl2rlb1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> > Reg, you've aroused my curiosity on three points:
> >
> > Why would you use 'Smith Chart' and 'anger' in the same sentence?
> >
> ==
> Just a figure of speech. "Anger" suggests setting about a job with
> energy, determination and a sense of purpose. As distinct from
mere
> amusement.
> ==
> > Why are there any frequencies where the Smith Chart is misleading
> and useless?
> > Which frequencies are they?
> ==
> Depending on the size of the errors one is prepared to tolerate and
on
> the calculated parameter of interest -
>
> Frequencies at which line attenuation per wavelength is not small.
> Frequencies at which Zo is not purely real.
> Frequencies at which CR is not equal to LG.
> Frequencies at which the reflection coefficient is greater than 1.0
>
> Comment : Zo is never purely real. CR is never equal to LG.
> And the chart is good only to 2-digit accuracy anyway.
>
> But Walt, you already know all this. Have you ever tried the Jones
> Chart? ;o)
> ==
> >
> > How can you say the Smith Chart is misleading and useless if
you've
> never used
> > one, and never inspected one for more than a minute?
> >
> > Walt, W2DU
> >
> ==
>
> No problem! Worked it out for myself many years ago. Some years
ago
> I introduced to this newsgroup the excellent book "Transmission
Lines"

> by Robert A. Chipman, 1968. It aroused some interest. Some of you
> obtained a copy.
>
> It has a whole chapter devoted to the Smith Chart and fully
describes
> its limitations, imperfections, short-comings and approximations.
>
> But the reason Chipman included the chapter was because of the great
> savings in labour and time (in HIS day and age) when doing
approximate
> calculations on short, low loss, HF transmission lines such as
antenna
> feedlines for which it was designed. Which is all radio amateurs
ever
> use it for. Hardly any amateurs ever use it in anger. It has other
> applications.
>
> I first programmed a computer for work on transmission lines around
> 1960. At frequencies between 0.1 Hz and 1 MHz, frequencies at which
> nobody would dream of using a Smith Chart. So I never became
addicted
> to it.
> ----
> Reg.
>
>

209. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 17:15:17 UTC
From: estopOne <EstopOne@cfl.rr.com>
Message-ID: <Fe0oe.63380$VH2.12234@tornado.tampabay.rr.com>
Source record: 75875
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Remember this: History (which the bible claims to be) is written by the
winners, not the loosers of whatever battle takes place.

"Dave Althoff, Jr." <dalloff@gcfn.org> wrote in message
news:dVQne.715$Ao2.16@newssvr17.news.prodigy.com...
> In rec.roller-coaster Tony Elka <shadowlane@shadowlane.com> wrote:
> : In article <429f1cad$1_1@spool9-west.superfeed.net>,
> : Cecil Moore <w5dxp@hotmail.com> wrote:
> :
> : > Deuteronomy 19:16,17
> : > "But of the cities of these people, which the Lord thy God
> : > doth give thee for an inheritance, thou shalt save alive
> : > nothing that breatheth: But thou shalt utterly destroy
> : > them; namely, the Hittites, and the Amorites, the Canaanites,
> : > and the Perizzites, the Hivites, and the Jebusites; as the
> : > Lord thy God hath commanded thee:"
> : >
> : > Nothing like claiming to have the only right way to
> : > pave the path to mass crimes. :-)
> :
> :
> :
> :
> : Just because it's in the bible doesn't make it the gospel truth.
>
> Deuteronomy is not one of the Gospels. 8-)
>
> That said, the fundamental related question (for a Christian) is this:
>
> Do you believe the Bible to be the "Word of God"? Or the "Words of God"?
>
> There is a profound difference there, and your answer to that question
> reveals a lot about your faith.
>
> (It's a mostly rhetorical question: Think about it, but don't answer,
> lest you start an even bigger flame-fest.)
>
> --Dave Althoff, Jr.
> /-\ _ _ *** Open daily! Ride safely! ***
> /XXX\ /X\ /X_ _ /X__ _ _ _____
> /XXXXX\ /XXX\ /XXXX_ /X\ /XXXXX\ /X\ /X\ /XXXXX
> _/XXXXXXX__/XXXXX\/XXXXXXXX_/XXX_/XXXXXXX__/XXX_/XXX_/_/XXXXXX

210. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 17:40:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <tC0oe.56$J02.1187940@news.sisna.com>
Source record: 75876
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

I don't think so... the british empire would not have themselves dealt
with as many history books do... nor the romans for that matter... and I
think a pretty clear picture is had how we slaughtered helpless indians
with bows and arrows with our rifles... the truth is just hard to see
at the time events are occurring...

Warmest regards,
John

"estopOne" <EstopOne@cfl.rr.com> wrote in message
news:Fe0oe.63380$VH2.12234@tornado.tampabay.rr.com...
> Remember this: History (which the bible claims to be) is written by
> the
> winners, not the loosers of whatever battle takes place.
>
>
> "Dave Althoff, Jr." <dalloff@gcfn.org> wrote in message
> news:dVQne.715$Ao2.16@newssvr17.news.prodigy.com...
>> In rec.roller-coaster Tony Elka <shadowlane@shadowlane.com> wrote:
>> : In article <429f1cad$1_1@spool9-west.superfeed.net>,
>> : Cecil Moore <w5dxp@hotmail.com> wrote:
>> :
>> : > Deuteronomy 19:16,17
>> : > "But of the cities of these people, which the Lord thy God
>> : > doth give thee for an inheritance, thou shalt save alive
>> : > nothing that breatheth: But thou shalt utterly destroy
>> : > them; namely, the Hittites, and the Amorites, the Canaanites,
>> : > and the Perizzites, the Hivites, and the Jebusites; as the
>> : > Lord thy God hath commanded thee:"
>> : >
>> : > Nothing like claiming to have the only right way to
>> : > pave the path to mass crimes. :-)
>> :
>> :
>> :
>> :
>> : Just because it's in the bible doesn't make it the gospel truth.
>>
>> Deuteronomy is not one of the Gospels. 8-)
>>
>> That said, the fundamental related question (for a Christian) is
>> this:
>>

>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>> God"?
>>
>> There is a profound difference there, and your answer to that
>> question
>> reveals a lot about your faith.
>>
>> (It's a mostly rhetorical question: Think about it, but don't
>> answer,
>> lest you start an even bigger flame-fest.)
>>
>> --Dave Althoff, Jr.
>> /-\ _ _ *** Open daily! Ride safely! ***
>> /XXX\ /X\ /X_ _ /X__ _ _ _____
>> /XXXXX\ /XXX\ /XXXX_ /X\ /XXXXX\ /X\ /X\ /XXXXX
>> _/XXXXXXX__/XXXXX\/XXXXXXXX_/XXX_/XXXXXXX__/XXX_/XXX_/_/XXXXXX
>
>

211. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 17:43:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f641a1l9gsaike385qhmhvvhhf7tcddm8j@4ax.com>
Source record: 75877

On Fri, 3 Jun 2005 16:45:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>See if you can find it - "A Chart Atlas of Complex Hyperbolic
>Functions", A. E. Kennelly, Harvard University, 1914.

Hi Reg,

A rare citation indeed, following an equally rare citation (Kennelly
following Smith, that is, and rare meaning a citation offered by you
who usually claim such activity reveals plagiarism).

But as for your challenge (yes a heated term I suppose - but
still...):
Google "Complex Hyperbolic Functions" Kennelly
to find from:
http://www.geocities.com/neveyaakov/electro_science/kennelly.html
"Arthur Edwin Kennelly was U.S. electrical engineer who made
innovations in analytic methods in electronics, particularly the
definitive application of complex-number theory to
alternating-current (ac) circuits."

Let me quickly add that Kennelly was US through immigration and
professional employment, but British schooled and trained.

Such an introduction would put your comment to the test:
>The Victorian multi-dimensional charts remained in use through the
>days of VLF and LF radio and for 5 decades until the advent of
>computers.
Which on one hand would suggest rather Edwardian than Victorian, and
on the other hand, perhaps Wilsonian for where this tome was actually
published.

73's
Richard Clark, KB7QHC

212. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 18:14:35 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <g61oe.25826$eR.1789@fe05.lga>
Source record: 75878

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:f641a1l9gsaike385qhmhvvhhf7tcddm8j@4ax.com...
> On Fri, 3 Jun 2005 16:45:12 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>See if you can find it - "A Chart Atlas of Complex Hyperbolic
>>Functions", A. E. Kennelly, Harvard University, 1914.
>
> Hi Reg,
>
> A rare citation indeed, following an equally rare citation (Kennelly
> following Smith, that is, and rare meaning a citation offered by you
> who usually claim such activity reveals plagiarism).
>
> But as for your challenge (yes a heated term I suppose - but
> still...):
> Google "Complex Hyperbolic Functions" Kennelly
> to find from:
> http://www.geocities.com/neveyaakov/electro_science/kennelly.html
> "Arthur Edwin Kennelly was U.S. electrical engineer who made
> innovations in analytic methods in electronics, particularly the
> definitive application of complex-number theory to
> alternating-current (ac) circuits."
>
> Let me quickly add that Kennelly was US through immigration and
> professional employment, but British schooled and trained.
>
> Such an introduction would put your comment to the test:
>>The Victorian multi-dimensional charts remained in use through the
>>days of VLF and LF radio and for 5 decades until the advent of
>>computers.
> Which on one hand would suggest rather Edwardian than Victorian, and
> on the other hand, perhaps Wilsonian for where this tome was actually
> published.
>
> 73's
> Richard Clark, KB7QHC

I have a copy of Kennelly's "A Chart Atlas of Complex Hyperbolic
Functions", in my library in Florida. I'd be pleased to scan it for anyone who'd
like a copy, but only if you have the patience to wait until I return south in
November.

Walt, W2DU

213. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 18:58:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7d91a1l7nubmdiikopp1j3134sq0johss9@4ax.com>
Source record: 75879

On Fri, 3 Jun 2005 14:14:35 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>I have a copy of Kennelly's "A Chart Atlas of Complex Hyperbolic
>Functions", in my library in Florida. I'd be pleased to scan it for anyone who'd
>like a copy, but only if you have the patience to wait until I return south in
>November.

Hi Walt,

I cannot imagine that but being a very lengthy chore. However, it is
quickly becoming one that more than a few are willing to perform and I
offer to one and all my congratulations and thanks for such effort.

I will pass on this if I am your only motivation. I have a copy of
"Standard Handbook for Electrical Engineers," McGraw - Hill, that is
contemporaneous. It comes with many such charts, tables, figures, and
minutia in the classical Wilsonian style of illustration (and I cannot
imagine myself copying all 2000 pages for circulation).

73's
Richard Clark, KB7QHC

214. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:09:55 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <9W1oe.72$7j4.1403997@news.sisna.com>
Source record: 75880

Cecil:

I must say, you are quite a talent, your threads draw more attention,
debate, argument and blood to boil--that I grow ill with jealousy!!!
<grin>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:429dc3d1$1_2@spool9-west.superfeed.net...
> I've added a Smith Chart graphic to my All-HF-Band-No-Tuner-Antenna
> information on my web page.
> --
> 73, Cecil http://www.qsl.net/w5dxp/smith.htm
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

215. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:14:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0acff$1_2@spool9-west.superfeed.net>
Source record: 75881
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

John Smith wrote:
> ... how we slaughtered helpless indians
> with bows and arrows with our rifles...

Custer might disagree with you on just how
helpless those Indians were. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

216. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:15:51 UTC
From: Ken and Sylvia Gould <kensylv@netins.net>
Message-ID: <d7qa9b$94k$1@news.netins.net>
Source record: 75882

CQ, CQ, CQ,.....GOD!! What kind of antenna are you using:?

Ken, WA0SLU

--
Ken and Sylvia Gould
kensylv@netins.net(primary), WA0SLU_KG@hotmail.com and wa0slu@ARRL.net
"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-6EDEAC.08494702062005@news.newsguy.com...
> In article <429f1cad$1_1@spool9-west.superfeed.net>,
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>> Deuteronomy 19:16,17
>> "But of the cities of these people, which the Lord thy God
>> doth give thee for an inheritance, thou shalt save alive
>> nothing that breatheth: But thou shalt utterly destroy
>> them; namely, the Hittites, and the Amorites, the Canaanites,
>> and the Perizzites, the Hivites, and the Jebusites; as the
>> Lord thy God hath commanded thee:"
>>
>> Nothing like claiming to have the only right way to
>> pave the path to mass crimes. :-)
>
>
>
>
> Just because it's in the bible doesn't make it the gospel truth.
>
> Tony
>
>
> "It ain't necessarily so, it ain't necessarily so,
> de hings dat yo li'ble, to read in de bible, it
> ain't necessarily so."
>
> from Porgy and Bess
> Gershwin, DuBose & Heyward

217. Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:21:37 UTC
From: wb5cys <wb5cys@sbcglobal.net>
Message-ID: <552oe.2209$RV5.711@newssvr30.news.prodigy.com>
Source record: 75883

I put a mount on my Dodge pickup, bolted to the bed rail with 4 stainless steel bolts. I placed a 20M Hamstick on the mount and the lowest I could get the SWR to drop at my desired frequency was 1.7 to 1. So I placed a small matching coil at the base of the antenna (also made by the same manufacturer as the antenna). As I started trying to bring the SWR down I noticed that anywhere that I touched the coil with the shorting wire would make the SWR rise. At the very end of the coil - away from the mounting point, the rise was minimal. As I moved the clip closer to the coil mounting point the SWR rose.

The same thing happens with my 40M hamstick.

What does this tell me? Am I doing something incorrectly in the matching process?

Thanks for any and all advice.

WB5CYS
Texas

218. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:32:45 UTC
From: nm5k@wt.net
Message-ID: <1117827165.073739.124270@g43g2000cwa.googlegroups.com>
Source record: 75884

Well, judging from the description, I'd say you need a cap
instead of the coil. It's sorta telling me you have enough
coil already. Part of your loading coil in the whip is
already acting as a matching coil. I think you probably
need a cap to tune out some reactance. I often use a
simple MFJ random wire tuner as a mobile matcher.
That would dial that down pretty low I would think.
But this is just a guess, being I can't see it...
In my trucks, I have the small tuner, and also a "dollar
special" matching coil. I use the tuner more often I
think...Most of my antenna setups with the glass stick
bases, have a few turns of matching coil wound into
the base. MK

219. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:34:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0b1a8$1_2@spool9-west.superfeed.net>
Source record: 75885

Ken and Sylvia Gould wrote:
> CQ, CQ, CQ,......GOD!! What kind of antenna are you using:?

Ever see a drawing of the gold-covered Ark? Those folded
wings look a lot like a dipole. Maybe it should have been
named the "Arc of the Covenant". :-)

From the TLC web site: "The specifications also included the two gold
cherubs that decorated the ends of the "mercy seat" atop the Ark, from
which God would communicate with Moses. These manifestations were said
to take the form of a glowing cloud, sparking between the outstretched
wings of the cherubims."

"But the Ark could be unpredictable. When the glowing cloud arced
between the cherubims, Moses himself would often keep clear of the
Tabernacle as implied in Exodus 40:35. Biblical accounts describe a Holy
Ark that seems to strike down its caretakers with the same raw power
unleashed against its caretakers' enemies. The sons of Aaron ï¿½ Moses'
own nephews ï¿½ were struck dead by the fire of the Lord. when they bring
the wrong offering before the Ark. In 2 Samuel 6:7, during a celebration
in Jerusalem, the driver of the cart bearing the Ark reaches out to
steady the golden box and falls dead at its touch."
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

220. Re: Free coaxial cable & connector catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:35:08 UTC
From: nm5k@wt.net
Message-ID: <1117827308.085016.239010@f14g2000cwb.googlegroups.com>
Source record: 75886
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap

I don't really need a connector catalog, but I can always
use free coaxial cable...I'm good in QRZ....MK

221. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:44:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0b40a$1_2@spool9-west.superfeed.net>
Source record: 75887

wb5cys wrote:
> I put a mount on my Dodge pickup, bolted to the bed rail with 4 stainless
> steel bolts. I placed a 20M Hamstick on the mount and the lowest I could get
> the SWR to drop at my desired frequency was 1.7 to 1. So I placed a small
> matching coil at the base of the antenna (also made by the same manufacturer
> as the antenna). As I started trying to bring the SWR down I noticed that
> anywhere that I touched the coil with the shorting wire would make the SWR
> rise.

Anything you do to a resonant antenna will usually raise the
SWR. For the coil to work, you need to start with an antenna
that is too short. You need to adjust the stinger as well as
adjusting the coil. First adjust the stinger to resonance
without the coil. Then shorten the stinger to raise the SWR
by making the antenna capacitive. Then add the coil. Alternate
between stinger adjustment and coil adjustment until satisfied.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

222. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 19:53:31 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e3be5$42a0b53d$438df3df$4056@ALLTEL.NET>
Source record: 75888

First, I would say that 1.7 to 1 is fine, leave it alone. It is what is expected.

That being said, the strident need to be 1:1 can be met in several ways. The antenna will probably be around 35 ohms. giving you the 1.7:1 you observe. You can wind a toroid (t-106-2) with 14 turns of wire. tap one of the wires at 11 turns and feed the antenna. A 50pf cap between the antenna and ground might also prove usefull.

to wind the toroid, start with a black and white wire, wind 14 times through the hole. Connect the black start end to the coax center. Connect the white start to the black finish. Connect the white finish to the coax shield, and vehicle ground. At turn 11 of the black wire, put a tap. This tap goes to the antenna.

The SWR meter should now read 1:1 and you won't get out one bit better.

The SWR on my base feedlines are 9:1 by design. I run a screwdriver on the car and once I am below 2:1, the radio is happy and so am I.

"wb5cys" <wb5c news:552oe.2209$RV5.711@newssvr30.news.prodigy.com...
> I put a mount on my Dodge pickup, bolted to the bed rail with 4 stainless
> steel bolts. I placed a 20M Hamstick on the mount and the lowest I could
get
> the SWR to drop at my desired frequency was 1.7 to 1. So I placed a small
> matching coil at the base of the antenna (also made by the same
manufacturer
> as the antenna). As I started trying to bring the SWR down I noticed that
> anywhere that I touched the coil with the shorting wire would make the SWR
> rise. At the very end of the coil - away from the mounting point, the rise
> was minimal. As I moved the clip closer to the coil mounting point the SWR
> rose.
>
> The same thing happens with my 40M hamstick.
>
> What does this tell me? Am I doing something incorrectly in the matching
> process?
>
> Thanks for any and all advice.
>
> WB5CYS
> Texas
>
>

223. Re: Want RG-11 or similar 75 ohm coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:03:11 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <UD2oe.45982$8S5.40853@bignews3.bellsouth.net>
Source record: 75889
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna

A run that long deserves twin-lead or ladder-line.
cast away the bindings of the center-conductor world
and come over from the dark side.

"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
news:Xaune.11644$uR4.206@newsread2.news.atl.earthlink.net...
> 150 ft or more foam dielectric.
> Something like 1/2 inch CATV would be ok also.
>
> Doug N4IJ
>
>

224. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:07:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ZL2oe.75$u56.2387157@news.sisna.com>
Source record: 75896

It was/is certainly one device anyone in the electronic world would pay
an enormous fee to examine--even with my telflon gloves, rubber boots
and tinfoil hat, would most likely strike me dead... <frown>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a0b1a8$1_2@spool9-west.superfeed.net...
> Ken and Sylvia Gould wrote:
>> CQ, CQ, CQ,.....GOD!! What kind of antenna are you using:?
>
> Ever see a drawing of the gold-covered Ark? Those folded
> wings look a lot like a dipole. Maybe it should have been
> named the "Arc of the Covenant". :-)
>
> From the TLC web site: "The specifications also included the two gold
> cherubs that decorated the ends of the "mercy seat" atop the Ark, from
> which God would communicate with Moses. These manifestations were said
> to take the form of a glowing cloud, sparking between the outstretched
> wings of the cherubims."
>
> "But the Ark could be unpredictable. When the glowing cloud arced
> between the cherubims, Moses himself would often keep clear of the
> Tabernacle as implied in Exodus 40:35. Biblical accounts describe a
> Holy Ark that seems to strike down its caretakers with the same raw
> power unleashed against its caretakers' enemies. The sons of Aaron &#65533;
> Moses' own nephews &#65533; were struck dead by the fire of the Lord. when
> they bring the wrong offering before the Ark. In 2 Samuel 6:7, during
> a celebration in Jerusalem, the driver of the cart bearing the Ark
> reaches out to steady the golden box and falls dead at its touch."
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> >100,000 Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

225. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:22:11 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a0bbf3$0$3707$39cecf19@news.twtelecom.net>
Source record: 75890

Dale Parfitt wrote:

> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:dcKne.208$YW7.8843336@news.sisna.com...
>
>>Dave:
>>
>>The T-Match will still show a favor in signal launch because of the
>>imbalance of the gamma rods on one side, on a beam this could even be
>>manipulated to ones favor--not as likely on a monopole... just looking
>>for a way to completely balance the field pattern...
>>I just thought someone had most likely done something like this
>>before... if I don't hear of anyone, will shove some various sized
>>drain, stove pipe, soldered cans, etc. over a 1/2 monopole in place of
>>the gamma rod and check it out this weekend...
>>
>>Warmest regards,
>>John
>>How can a T match have show a bias- it is balanced. Virtually all the
>
> serious EME arrays use this matching technique and show the major lobe dead
> off the front.
>
> Dale W4OP
>
>

Dale

Was that you I worked while mobile on 6 yesterday or the day before?
Sounds like the call I remember.

tom
K0TAR

226. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:24:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <JKCdnXMSReXpIT3fRVn-iA@crocker.com>
Source record: 75891

in other words i think he is trying to make a J pole into a coaxial
arrangement where the short part of the J wraps all the way around the pole.
personally it sounds like a lot of work to get rid of some small assymetry
caused by the gamma rod. the easier solution is a plain vertical with a
tuner to make the transmitter happy.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:YxYne.12$AK.322689@news.sisna.com...
> ... err, not to be confused with a "dipole beam", which is better
> referred to as a "two element beam" to remove all confusion... <grin>
>
> Warmest regards,
> John
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:NmYne.9$0z1.424059@news.sisna.com...
> > Not that I am aware of, only thing is there is no where to "hang" that
> > T-Match--well, the mast I mentioned... and the fact the monopole is
> > absent the bottom half of a dipole element... this is especially
> > notable if the bottom end of the monopole is sitting on the ground...
> > that tends to remove all confusion... <grin>
> >
> > Warmest regards,
> > John
> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> > news:42a05153$1_2@spool9-west.superfeed.net...
> >> John Smith wrote:
> >>> I should have pointed out, a T-Match requires a dipole, a few seem
> >>> to miss I had previously noted this is a monopole in question...
> >>
> >> Is there any difference in a 1/2WL monopole element and a
> >> 1/2WL dipole element sans the T-Match? I can't think of any.
> >> --
> >> 73, Cecil http://www.qsl.net/w5dxp
> >>
> >> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> >> News==----
> >> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> >> 120,000+ Newsgroups
> >> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> >> =----
> >
> >
>

>

227. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:28:11 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a0bd5c$0$3707$39cecf19@news.twtelecom.net>
Source record: 75892

jgboyles@aol.com wrote:

> Hi, I haven't flown since 9/11, preferred to drive. I am going on a
> Cruise to the eastern Caribbean, and want to take my travel antenna
> (loaded whip with counterpoise) and small hf xcvr. Anybody done this
> sort of thing on a plane? Would it be better to take the rig on
> carry-on or in the checked baggage? Or is this a bad idea cause they
> will arrest me as a suspected terrorist? Ham radios are not on the
> list of banned items, but I had rather not bother if it will cause any
> glitch in this endeavor. Thanks for any info.
> Gary N4AST
>

I flew to Daytona a year and a half ago for Christmas with a 10 foot stainless whip coiled up in a large sutcase. Also included in the suitcase was a triple magnet mount for the whip, a Z11 autotuner, assorted coax. The bagchecker, Northwest Airlines at MSP, spotted me with my handheld, put 2 and 2 together, and asked if it was my bag, then said he was a ham and passed it all, no problem.

So I probably lucked out, but it for sure was all legal according to him.

tom
K0TAR

228. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:52:16 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <7q3oe.83$jB.8418448@news.sisna.com>
Source record: 75895

why not just a rusty coat hanger and some bailing wire? <grin>

John

"Dave" <noone@nowhere.com> wrote in message
news:JKCdnXMSReXpIT3fRVn-iA@crocker.com...
> in other words i think he is trying to make a J pole into a coaxial
> arrangement where the short part of the J wraps all the way around the
> pole.
> personally it sounds like a lot of work to get rid of some small
> assymetry
> caused by the gamma rod. the easier solution is a plain vertical with
> a
> tuner to make the transmitter happy.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:YxYne.12$AK.322689@news.sisna.com...
>> ... err, not to be confused with a "dipole beam", which is better
>> referred to as a "two element beam" to remove all confusion... <grin>
>>
>> Warmest regards,
>> John
>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:NmYne.9$0z1.424059@news.sisna.com...
>> > Not that I am aware of, only thing is there is no where to "hang"
>> > that
>> > T-Match--well, the mast I mentioned... and the fact the monopole is
>> > absent the bottom half of a dipole element... this is especially
>> > notable if the bottom end of the monopole is sitting on the
>> > ground...
>> > that tends to remove all confusion... <grin>
>> >
>> > Warmest regards,
>> > John
>> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> > news:42a05153$1_2@spool9-west.superfeed.net...
>> >> John Smith wrote:
>> >>> I should have pointed out, a T-Match requires a dipole, a few
>> >>> seem
>> >>> to miss I had previously noted this is a monopole in question...
>> >>
>> >> Is there any difference in a 1/2WL monopole element and a
>> >> 1/2WL dipole element sans the T-Match? I can't think of any.
>> >> --

>> >> 73, Cecil http://www.qsl.net/w5dxp
>> >>
>> >> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure
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>> >> News==----
>> >> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
>> >> 120,000+ Newsgroups
>> >> ----= East and West-Coast Server Farms - Total Privacy via
>> >> Encryption
>> >> =----
>> >
>> >
>>
>>
>
>

229. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:55:40 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <gt3oe.32$xI2.9@trnddc09>
Source record: 75893

"Tom Ring" <news0002@taring.org> wrote in message
news:42a0bbf3$0$3707$39cecf19@news.twtelecom.net...
> Dale Parfitt wrote:
>
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:dcKne.208$YW7.8843336@news.sisna.com...
> >
> >>Dave:
> >>
> >>The T-Match will still show a favor in signal launch because of the
> >>imbalance of the gamma rods on one side, on a beam this could even be
> >>manipulated to ones favor--not as likely on a monopole... just looking
> >>for a way to completely balance the field pattern...
> >>I just thought someone had most likely done something like this
> >>before... if I don't hear of anyone, will shove some various sized
> >>drain, stove pipe, soldered cans, etc. over a 1/2 monopole in place of
> >>the gamma rod and check it out this weekend...
> >>
> >>Warmest regards,
> >>John
> >>How can a T match have show a bias- it is balanced. Virtually all the
> >
> > serious EME arrays use this matching technique and show the major lobe
dead
> > off the front.
> >
> > Dale W4OP
> >
> >
>
> Dale
>
> Was that you I worked while mobile on 6 yesterday or the day before?
> Sounds like the call I remember.
>
> tom
> K0TAR

Hi Tom,
I knew the band was open because of 88-108 stations booming in, but my rotor
and remote antenna switch wires to the tower are temporarily disconnected
while we build a 180 ton rock wall behind the house. I'll be back on this
weekend.

Dale W4OP

230. Re: Want RG-11 or similar 75 ohm coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 20:59:21 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Qs6dnW_M3_cyWT3fRVn-3A@comcast.com>
Source record: 75894
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna

"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
news:Xaune.11644$uR4.206@newsread2.news.atl.earthlink.net...
> 150 ft or more foam dielectric.
> Something like 1/2 inch CATV would be ok also.
>
> Doug N4IJ
>
Local CATV outlet will have end of reel lengths of 1/2 and 7/8 hard-line
that should meet your needs. They have to pay to send it to land fills (so
you save them money)

GB

231. Re: Programming Languages, sort of.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 21:06:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ID3oe.85$6X.9380962@news.sisna.com>
Source record: 75897

David:

... on reasons why, you failed to mention, "appraise the competitions offerings..." <grin>

Warmest regards,
John

"David J Windisch" <davidjw@cinci.rr.com> wrote in message news:8NAne.16331$JX5.5074@tornado.ohiordc.rr.com...
> For the initiated:
>
> If you're wanting to dis-assemble Win-dos _executables_, make me a
> _reasonable_ offer on SOURCER v6.55 with BIOS Pre-Processor, and
> ASMtool v3.07, from V Communications, which I bought new in 1995.
>
> SOURCER makes multiple passes through executabless and produces
> assembly-like listings (with optional comments: eg, interrupts, types
> of jumps), and ASMtool produces flow-charts from SOURCER results.
>
> Why do this? Maintenance of undocumented code, virus research,
> solving compatibility problems ...
>
> I dunno about "latest upgrades". The products do what is claimed for
> them, ie, dis-assemble Win-dos executables, and produce flow-charts.
>
> Nisi? Okay, "Caveat emptor".
>
> 73, Dave, N3HE
> Cincinnati OH
>

232. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 21:17:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a1i7idgi14f12@corp.supernews.com>
Source record: 75898

Fred W4JLE wrote:
> First, I would say that 1.7 to 1 is fine, leave it alone. It is what is
> expected.
>
> That being said, the strident need to be 1:1 can be met in several ways. The
> antenna will probably be around 35 ohms. giving you the 1.7:1 you observe. . .

I'm curious -- how did you determine from the SWR that the antenna impedance would be resistive, and assuming it is, that it would be less than 50 ohms rather than greater? Perhaps you've measured a Hamstick on a typical mobile mount?

Roy Lewallen, W7EL

233. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 21:34:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a1j6kkqst3qd1@corp.supernews.com>
Source record: 75899

I've carried quite a variety of interesting stuff on domestic flights many times before and after 9/11, including homebrew gear, mag mount antennas, cables, batteries, etc., and on a few international flights. My checked bags always end up with a card saying they've been inspected, but that's all. The carry-on is sometimes flagged for hand inspection by the X-ray operator, and I've learned to leave the interesting stuff on top so it's easy to find during the hand inspection. Sometimes the problem is simply that they can't see what might be hidden under a metal box (which I assume is why they require computers to be removed from their bags). If you're in a hurry, you can dump all the interesting stuff into one of the plastic bins so it's in plain sight and they won't have to search through your bag for it, and so it won't hide any of the bag contents from the X-ray -- I've done that on a few occasions. The hand inspection usually only takes a couple of extra minutes. There's nothing illegal about carrrying radio or electronic gear -- they just need to know that it won't explode, give off noxious fumes, or be used to stab somebody. If it won't, they could care less what it is or does. It's not a big deal at all.

MP3 players, USB, Ethernet, and telephone cables, GPS receivers, HTs, cell phone chargers, power supplies and voltage converters, and other common modern trappings generally sail right through the X-ray machine without a comment.

Roy Lewallen, W7eL

234. Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 21:40:00 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <Q64oe.9868$Wr.5569@fed1read04>
Source record: 75900

Does a knot in insulated 16g stranded wire pose a problem
for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
operating 40-10m with a KAT2 autotuner. The knots are 1/2"
away from the feedpoint & lock the antenna to it's center
insulator.

Ken

--
Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
Proud builder & owner of Elecraft K2 #4913

235. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:01:05 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Dq4oe.1762$rt3.45@fe03.lga>
Source record: 75901

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Q64oe.9868$Wr.5569@fed1read04...
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken
Sorry, Ken, knots are a no-no. DC can travel through them, but RF? Uhn Uh. The RF gets all tied up in them and doesn't know which way to go, so the power concentrates there and pulverizes both the wire and the insulation--the knot goes pooof! And down comes the dipole. How much did you say you paid for it?

Walt, W2DU

236. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:24:45 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <4ll1a1hqlgre4gj2omithiit1ncq48llhi@4ax.com>
Source record: 75903

On Fri, 03 Jun 2005 10:01:39 -0400, Buck <iam@this.site> wrote:

>On Thu, 02 Jun 2005 12:33:44 GMT, Bob Miller <NOSPAM@neosoft.com>
>wrote:
>
>>On Thu, 02 Jun 2005 02:11:44 -0400, Buck <iam@this.site> wrote:
>>
>>
>>>
>>>Each radio has it's own finger-print that the FCC can read. Many
>>>times, they can tell the make and model by the signature before ever
>>>seeing the rig. I would think that the most popular HF mobile rig
>>>ever is recognized by the FCC.
>>
>>Rig fingerprint? How does that work?
>>
>>bob
>>k5qwg
>>
>
>
>I don't know, the FCC mentions them in letters to the owners of the
>rigs they are requiring inspection on.

It's called "signature analysis". Every emitter, whether the human voice, a transmiiter or a piece of vibrating machinery puts out its vibrations in a unique pattern that can be determined by careful analysis of the signal. There are mathmatical analysis tools that can break down the patterns into frequency bands and time signatures that all together, show that your Icom IC-706 MarkIIG is uniquely different from my friend's. The math isn't particularly difficult, there are specialty chip sets that will do it. The trick is doing it fast and accurately enough. The "waterfall" display in WINPSK is doing the math, but only enough to show the signals and decode the PSK protocol. If it were accurate enough it would show the differences between all the transmitters.

Russ - kf4wxd

237. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:25:14 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <36m1a1d770mf40m1r4m1cihoqofnr5e5h2@4ax.com>
Source record: 75902

On Fri, 03 Jun 2005 10:01:39 -0400, Buck <iam@this.site> wrote:

>On Thu, 02 Jun 2005 12:33:44 GMT, Bob Miller <NOSPAM@neosoft.com>
>wrote:
>
>>On Thu, 02 Jun 2005 02:11:44 -0400, Buck <iam@this.site> wrote:
>>
>>
>>>
>>>Each radio has it's own finger-print that the FCC can read. Many
>>>times, they can tell the make and model by the signature before ever
>>>seeing the rig. I would think that the most popular HF mobile rig
>>>ever is recognized by the FCC.
>>
>>Rig fingerprint? How does that work?
>>
>>bob
>>k5qwg
>>
>
>
>I don't know, the FCC mentions them in letters to the owners of the
>rigs they are requiring inspection on.

It's called "signature analysis". Every emitter, whether the human voice, a transmiiter or a piece of vibrating machinery puts out its vibrations in a unique pattern that can be determined by careful analysis of the signal. There are mathmatical analysis tools that can break down the patterns into frequency bands and time signatures that all together, show that your Icom IC-706 MarkIIG is uniquely different from my friend's. The math isn't particularly difficult, there are specialty chip sets that will do it. The trick is doing it fast and accurately enough. The "waterfall" display in WINPSK is doing the math, but only enough to show the signals and decode the PSK protocol. If it were accurate enough it would show the differences between all the transmitters.

Russ - kf4wxd

238. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:42:37 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d7qobl$4ef$1@news.service.uci.edu>
Source record: 75908

John Smith wrote:

> I should have pointed out, a T-Match requires a dipole, a few seem to
> miss I had previously noted this is a monopole in question... a T-Match
> would unbalance the RF RADIATION PATTERN of a dipole in the same way a
> gamma does a monopole, there would be no gain from using a T-Match in
> place of a gamma, EVEN if it could be done here...
> I suppose you might be able to mount the bottom of T-Match on the mast
> holding the monopole--but then, that is another experiment for another
> day...
>
> Warmest regards,
> John

I've been thinking about a delta type match as a way to couple to a 1/2
wave radiator. Might be interesting.

ac6xg

> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:yPOne.249$Db3.12477576@news.sisna.com...
>
>>Dale:
>>
>>Yes, someone injected a T-Match in here, but no real interest in a
>>T-Match...
>>
>>Warmest regards,
>>John
>>
>>"Dale Parfitt" <par@parelectronics.com> wrote in message
>>news:ODOne.7695$vK5.2782@trnddc03...
>>
>>>>"Dave Platt" <dplatt@radagast.org> wrote in message
>>>news:119v2otpe9mt6ba@corp.supernews.com...
>>>
>>>>>In article <tJLne.13595$Vm4.9195@trnddc01>,
>>>>Dale Parfitt <par@parelectronics.com> wrote:
>>>>
>>>>
>>>>>How can a T match have show a bias- it is balanced. Virtually all
>>>>>the
>>>>>serious EME arrays use this matching technique and show the major
>>>>>lobe
>>>

>>>dead
>>>
>>>>>off the front.
>>>>
>>>>Are they feeding directly off of the coax, or do they use a halfwave
>>>>(or other) balun between the coax and the T?
>>>>
>>>
>>>Check out any of the antenna handbooks for a Tee match. The driven
>>>element
>>>is insulated from the boom and split in the middle. Each side of the
>>>Tee
>>>taps out on the D.E. at a point yielding a 200 Ohm balanced feed. A
>>>4:1
>>>coaxial balun is used to transform the 200 Ohms balanced down to 50
>>>Ohms
>>>unbalanced.
>>>
>>>Dale W4OP
>>>
>>>
>>
>>
>
>

239. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:48:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0df33$1_1@spool9-west.superfeed.net>
Source record: 75904

Walter Maxwell wrote:
> Sorry, Ken, knots are a no-no. DC can travel through them, but RF? Uhn Uh. The
> RF gets all tied up in them and doesn't know which way to go, so the power
> concentrates there and pulverizes both the wire and the insulation--the knot
> goes pooof! And down comes the dipole. How much did you say you paid for it?

At one place I worked in CA, we put a knot in the AC line of
our soldering irons and hung them on cup hooks on the wall when
not in use.

I was using one at a bench when a secretary asked me what the
knot was for. I told her that's how we regulate the temperature
of the iron - the tighter the knot, the fewer the electrons
getting to the heating element. Physics was not her long suit.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

240. Re: Carry on plane antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:52:54 UTC
From: jgboyles@aol.com
Message-ID: <1117839174.534608.71440@f14g2000cwb.googlegroups.com>
Source record: 75905

Roy Lewallen wrote:
> I've carried quite a variety of interesting stuff on domestic flights
> many times before and after 9/11, including homebrew gear, mag mount
> antennas, cables, batteries, etc., and on a few international flights.
> My checked bags always end up with a card saying they've been inspected,
> but that's all. The carry-on is sometimes flagged for hand inspection by
> the X-ray operator, and I've learned to leave the interesting stuff on
> top so it's easy to find during the hand inspection. Sometimes the
> problem is simply that they can't see what might be hidden under a metal
> box (which I assume is why they require computers to be removed from
> their bags). If you're in a hurry, you can dump all the interesting
> stuff into one of the plastic bins so it's in plain sight and they won't
> have to search through your bag for it, and so it won't hide any of the
> bag contents from the X-ray -- I've done that on a few occasions. The
> hand inspection usually only takes a couple of extra minutes. There's
> nothing illegal about carrrying radio or electronic gear -- they just
> need to know that it won't explode, give off noxious fumes, or be used
> to stab somebody. If it won't, they could care less what it is or does.
> It's not a big deal at all.
>
> MP3 players, USB, Ethernet, and telephone cables, GPS receivers, HTs,
> cell phone chargers, power supplies and voltage converters, and other
> common modern trappings generally sail right through the X-ray machine
> without a comment.
>
> Roy Lewallen, W7eL

Hi Roy, Thanks for the advice, and to everyone else that replied.
Sounds like I will not have any problems, now I have to convince my
son, who is accompanying me that there will be no problem. He believes
all this stuff on the internet.
Gary N4AST

241. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:55:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <1e5oe.107$kv5.18531462@news.sisna.com>
Source record: 75907

Ken:

Hindu's go to great lengths not to even step upon a single ant, for that feel the untimely death of a single ant might well change the course of history (ask Cecil if you don't believe me--he has claimed he is a Hindu <grin>.)

But Ken, I think that knot matters even less than the life of the poor ant in question... you are probably safe...

Warmest regards,
John
"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Q64oe.9868$Wr.5569@fed1read04...
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken
>
> --
> Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
> Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
> Proud builder & owner of Elecraft K2 #4913
>

242. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 22:59:49 UTC
From: jgboyles@aol.com
Message-ID: <1117839589.144970.11880@f14g2000cwb.googlegroups.com>
Source record: 75906

Ken Bessler wrote:
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken
>
> --
> Just my 2¢ worth... 73's es gd dx de Ken KGØWX
> Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
> Proud builder & owner of Elecraft K2 #4913

HI Ken, the knot would pose no problem at hf frequencies. It would
pose even less a problem if you stripped the insulation off at the knot
and soldered it all together.
Gary N4AST

243. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:20:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0e694_1@spool9-west.superfeed.net>
Source record: 75909

Roy Lewallen wrote:
> I'm curious -- how did you determine from the SWR that the antenna
> impedance would be resistive, and assuming it is, that it would be less
> than 50 ohms rather than greater? Perhaps you've measured a Hamstick on
> a typical mobile mount?

It's impossible to bring an impedance greater than 50
ohms down to 50 ohms by installing a shunt reactance
so the resonant feedpoint resistance of any mobile antenna
using a shunt reactance to achieve 50 ohms is, by definition,
less than 50 ohms.

if Rs >= 50 and Xs > 0 then Rp > 50

Assume one can adjust the feedpoint impedance of a 40m
bugcatcher to 25+j25 or 25-j25 by adjusting the length
of the stinger. If one shunts 25+j25 with a -j50 cap,
the feedpoint impedance will be 50+j0 ohms. If one shunts
25-j25 with a +j50 coil, the feedpoint impedance will
be 50+j0 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

244. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:28:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0e88e$1_1@spool9-west.superfeed.net>
Source record: 75910

John Smith wrote:
> Hindu's go to great lengths not to even step upon a single ant, for that
> feel the untimely death of a single ant might well change the course of
> history (ask Cecil if you don't believe me--he has claimed he is a Hindu
> <grin>.)

Every day I kill thousands, if not millions, of living organisms
like staff bacteria and cold viruses. I am forced to consume a
liter of wine just to get rid of my guilt pangs. I wonder how
other Hindus handle their guilt over killing so many living
creatures every day of their lives?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

245. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:31:29 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <oL5oe.8840$QX1.7230@fe06.lga>
Source record: 75911

<jgboyles@aol.com> wrote in message
news:1117839589.144970.11880@f14g2000cwb.googlegroups.com...

Ken Bessler wrote:
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken
>
> --
> Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
> Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
> Proud builder & owner of Elecraft K2 #4913

HI Ken, the knot would pose no problem at hf frequencies. It would
pose even less a problem if you stripped the insulation off at the knot
and soldered it all together.
Gary N4AST

When my son Bill, W2WM, was in high school he was a practical jokester. His
science teacher wasn't too swift, and when Bill told him current wouldn't pass
through a knot in a zip cord, the teacher believed him.

Walt, W2DU

246. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:34:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a0e9e8$1_1@spool9-west.superfeed.net>
Source record: 75912

Cecil Moore wrote:
> It's impossible to bring an impedance greater than 50
> ohms down to 50 ohms by installing a shunt reactance ...

My meaning above may not have been 100% clear.
I meant to say: It's impossible to bring an impedance,
having a resistive component greater than 50 ohms, down
to 50 ohms by installing a shunt reactance.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

247. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:37:18 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a0e9ae$0$3712$39cecf19@news.twtelecom.net>
Source record: 75913

Cecil Moore wrote:

>
> Every day I kill thousands, if not millions, of living organisms
> like staff bacteria and cold viruses. I am forced to consume a
> liter of wine just to get rid of my guilt pangs. I wonder how
> other Hindus handle their guilt over killing so many living
> creatures every day of their lives?

You should be doubly guilt panged, Cecil, just think of the billions of poor yeast that gave up the ghost to assuage your guilt.

(He types between sips of Smithwick's Irish Ale)

tom
K0TAR

248. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:42:43 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <UV5oe.9951$Wr.2335@fed1read04>
Source record: 75914

"Walter Maxwell" <walt@w2du.com> wrote in message
news:Dq4oe.1762$rt3.45@fe03.lga...
>
> Sorry, Ken, knots are a no-no. DC can travel through them, but RF? Uhn Uh.
> The RF gets all tied up in them and doesn't know which way to go, so the
> power concentrates there and pulverizes both the wire and the
> insulation--the knot goes poooof! And down comes the dipole. How much did
> you say you paid for it?
>
> Walt, W2DU

I didn't pay much for it. I had the coax & connector plus
the center insulator. The wire was $3.30.

FYI I'll only be putting 5-15 watts SSB/CW through the
antenna on FD.

--
Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
Proud builder & owner of Elecraft K2 #4913

249. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:42:57 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <5U5oe.52398$6k7.50420@bignews4.bellsouth.net>
Source record: 75915

The Knot matters not
your signal will live
but the receivers
will need to tie
a knot in their ears

dididididahdidah
...-.-

-.. . .-- ....- .--. -- .---

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Q64oe.9868$Wr.5569@fed1read04...
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken

250. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:55:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <68669$42a0ede7$438df3df$1658@ALLTEL.NET>
Source record: 75916

```
Only if it is tied really tight. The electrons can't make sharp turns at
C*VF and end up somewhere else.
.
```

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Q64oe.9868$Wr.5569@fed1read04...
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken
>
> --
> Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
> Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
> Proud builder & owner of Elecraft K2 #4913
>
>

251. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-03 23:56:13 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <y46oe.52413$6k7.3465@bignews4.bellsouth.net>
Source record: 75917

Irish ale is the best
good taste, I say

> (He types between sips of Smithwick's Irish Ale)
>
> tom
> K0TAR

252. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:01:01 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <1b6oe.9992$Wr.719@fed1read04>
Source record: 75918

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:68669$42a0ede7$438df3df$1658@ALLTEL.NET...
> Only if it is tied really tight. The electrons can't make sharp turns at
> C*VF and end up somewhere else.

I just had an idea - I could strip 1/2" of insulation
just past the knot and solder a jumper to the feedpoint,
electrically bypassing the knots while still leaving
them there to be strain reliefs.

Thanks for the help, guys.

--
Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
Proud builder & owner of Elecraft K2 #4913

253. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:02:16 UTC
From: Andrew Brawley <fadedj_drew@coasterboys.com>
Message-ID: <CuadnevBif4lcj3fRVn-uw@rcn.net>
Source record: 75919
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"John Smith" <assemblywizard@gmail.com> wrote in message
news:qNXne.3$nl7.105576@news.sisna.com...
> One thing I know God has, it is a sense of humor (he made us, didn't he)
> he gave man something I have not seen in any other animal--this sense of
> humor. Indeed, it is the only thing which separates us from the
> non-thinking animals... <grin>

I don't know. My last Rottweiler was quite the prankster. She never really displaced objects that were not defined as her *toys*. However, one morning when I was in the shower, she removed the bath mat to my bedroom and then came back and laid in its place. When I pulled back the shower curtain, there she was, looking up at me with a silly grin. I just laughed as I said "Kiska! What? You want I should stand on you and drip?" She then jumped up and brought back the bath mat!

Andrew Brawley

fade out to reply

254. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:20:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <4t6oe.122$2m.23289007@news.sisna.com>
Source record: 75827

might just work, if the total element length is 1 wave! and in a dipole
configuration...

Warmest regards,
John

"Jim Kelley" <jwkelley@nospam.edu> wrote in message
news:d7qobl$4ef$1@news.service.uci.edu...
>
>
> John Smith wrote:
>
>> I should have pointed out, a T-Match requires a dipole, a few seem to
>> miss I had previously noted this is a monopole in question... a
>> T-Match would unbalance the RF RADIATION PATTERN of a dipole in the
>> same way a gamma does a monopole, there would be no gain from using a
>> T-Match in place of a gamma, EVEN if it could be done here...
>> I suppose you might be able to mount the bottom of T-Match on the
>> mast holding the monopole--but then, that is another experiment for
>> another day...
>>
>> Warmest regards,
>> John
>
> I've been thinking about a delta type match as a way to couple to a
> 1/2 wave radiator. Might be interesting.
>
> ac6xg
>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:yPOne.249$Db3.12477576@news.sisna.com...
>>
>>>Dale:
>>>
>>>Yes, someone injected a T-Match in here, but no real interest in a
>>>T-Match...
>>>
>>>Warmest regards,
>>>John
>>>
>>>"Dale Parfitt" <par@parelectronics.com> wrote in message
>>>news:ODOne.7695$vK5.2782@trnddc03...
>>>
>>>>"Dave Platt" <dplatt@radagast.org> wrote in message
>>>>news:119v2otpe9mt6ba@corp.supernews.com...

>>>>
>>>>>In article <tJLne.13595$Vm4.9195@trnddc01>,
>>>>>Dale Parfitt <par@parelectronics.com> wrote:
>>>>>
>>>>>
>>>>>>How can a T match have show a bias- it is balanced. Virtually all
>>>>>>the
>>>>>>serious EME arrays use this matching technique and show the major
>>>>>>lobe
>>>>
>>>>dead
>>>>
>>>>>>off the front.
>>>>>
>>>>>Are they feeding directly off of the coax, or do they use a
>>>>>halfwave
>>>>>(or other) balun between the coax and the T?
>>>>>
>>>>
>>>>Check out any of the antenna handbooks for a Tee match. The driven
>>>>element
>>>>is insulated from the boom and split in the middle. Each side of the
>>>>Tee
>>>>taps out on the D.E. at a point yielding a 200 Ohm balanced feed. A
>>>>4:1
>>>>coaxial balun is used to transform the 200 Ohms balanced down to 50
>>>>Ohms
>>>>unbalanced.
>>>>
>>>>Dale W4OP
>>>>
>>>>
>>>
>>>
>>
>>
>

255. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:22:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2v6oe.123$Hp.23365775@news.sisna.com>
Source record: 75825

```
... however, would still distort radiation pattern due to the match on
one side... perfect symmetry prompted me to begin this line of thought
and tweaking the equations...

Warmest regards,
John
"John Smith" <assemblywizard@gmail.com> wrote in message
news:4t6oe.122$2m.23289007@news.sisna.com...
> might just work, if the total element length is 1 wave! and in a
> dipole configuration...
>
> Warmest regards,
> John
>
> "Jim Kelley" <jwkelley@nospam.edu> wrote in message
> news:d7qobl$4ef$1@news.service.uci.edu...
>>
>>
>> John Smith wrote:
>>
>>> I should have pointed out, a T-Match requires a dipole, a few seem
>>> to miss I had previously noted this is a monopole in question... a
>>> T-Match would unbalance the RF RADIATION PATTERN of a dipole in the
>>> same way a gamma does a monopole, there would be no gain from using
>>> a T-Match in place of a gamma, EVEN if it could be done here...
>>> I suppose you might be able to mount the bottom of T-Match on the
>>> mast holding the monopole--but then, that is another experiment for
>>> another day...
>>>
>>> Warmest regards,
>>> John
>>
>> I've been thinking about a delta type match as a way to couple to a
>> 1/2 wave radiator. Might be interesting.
>>
>> ac6xg
>>
>>> "John Smith" <assemblywizard@gmail.com> wrote in message
>>> news:yPOne.249$Db3.12477576@news.sisna.com...
>>>
>>>>Dale:
>>>>
>>>>Yes, someone injected a T-Match in here, but no real interest in a
>>>>T-Match...
```

>>>>
>>>>Warmest regards,
>>>>John
>>>>
>>>>"Dale Parfitt" <par@parelectronics.com> wrote in message
>>>>news:ODOne.7695$vK5.2782@trnddc03...
>>>>
>>>>>"Dave Platt" <dplatt@radagast.org> wrote in message
>>>>>news:119v2otpe9mt6ba@corp.supernews.com...
>>>>>
>>>>>>In article <tJLne.13595$Vm4.9195@trnddc01>,
>>>>>>Dale Parfitt <par@parelectronics.com> wrote:
>>>>>>
>>>>>>
>>>>>>>How can a T match have show a bias- it is balanced. Virtually all
>>>>>>>the
>>>>>>>serious EME arrays use this matching technique and show the major
>>>>>>>lobe
>>>>>
>>>>>dead
>>>>>
>>>>>>>off the front.
>>>>>>
>>>>>>Are they feeding directly off of the coax, or do they use a
>>>>>>halfwave
>>>>>>(or other) balun between the coax and the T?
>>>>>>
>>>>>
>>>>>Check out any of the antenna handbooks for a Tee match. The driven
>>>>>element
>>>>>is insulated from the boom and split in the middle. Each side of
>>>>>the Tee
>>>>>taps out on the D.E. at a point yielding a 200 Ohm balanced feed. A
>>>>>4:1
>>>>>coaxial balun is used to transform the 200 Ohms balanced down to 50
>>>>>Ohms
>>>>>unbalanced.
>>>>>
>>>>>Dale W4OP
>>>>>
>>>>>
>>>>
>>>>
>>>
>>>
>>
>
>

256. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:29:49 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3cbc4$42a0f5ff$438df3df$3756@ALLTEL.NET>
Source record: 75920

Only going from the last one I fooled with. I was unable to persuade the owner he would be better off tuning for field strength than SWR and the solution I purposed is one of many that will make a SWR meter happy along with those folks who are cult members of the church of no reflections.

I make no claims that any other antenna in like or different circumstances will ever exhibit exactly 35 +j0 Ohms. If I gave that impression to the learned members of this conference, I humbly apologize for once again making a broad statement with out a list of qualifiers. Mea Culpa :>)

The ubiquitous SWR meter, the greatest generator of misinformation since Baghdad Bob.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11a1i7idgi14f12@corp.supernews.com...
> Fred W4JLE wrote:
> > First, I would say that 1.7 to 1 is fine, leave it alone. It is what is
> > expected.
> >
> > That being said, the strident need to be 1:1 can be met in several ways.
The
> > antenna will probably be around 35 ohms. giving you the 1.7:1 you
observe. . .
>
> I'm curious -- how did you determine from the SWR that the antenna
> impedance would be resistive, and assuming it is, that it would be less
> than 50 ohms rather than greater? Perhaps you've measured a Hamstick on
> a typical mobile mount?
>
> Roy Lewallen, W7EL

257. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:38:15 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <XJ6oe.2031$wy1.766@newssvr13.news.prodigy.com>
Source record: 75921

Well, there is always Reincarnation! (My Karma ran over your Dogma)!
Jim NN7K

Cecil Moore wrote:
I wonder how
> other Hindus handle their guilt over killing so many living
> creatures every day of their lives?

258. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:43:54 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <eP6oe.129$IA.23610480@news.sisna.com>
Source record: 75924

CECIL!!!!

ROFLOL!!!
Hey, I got some change here, how much you got, wanna go halfs on a new
bottle? <grin>

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a0e88e$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>> Hindu's go to great lengths not to even step upon a single ant, for
>> that feel the untimely death of a single ant might well change the
>> course of history (ask Cecil if you don't believe me--he has claimed
>> he is a Hindu <grin>.)
>
> Every day I kill thousands, if not millions, of living organisms
> like staff bacteria and cold viruses. I am forced to consume a
> liter of wine just to get rid of my guilt pangs. I wonder how
> other Hindus handle their guilt over killing so many living
> creatures every day of their lives?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
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> =----

259. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:49:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5U6oe.131$%a1.23913501@news.sisna.com>
Source record: 75826

Ken:

Some of like to joke a bit, we mean no harm, please do not take offense... I really believe the general consensus is that the knot is no problem...

... now, that said, to tell you the truth, the knot just being there would bother me--and I think it does you too--I'd probably remove the knot and go to great ends to do it--but really, the knot matter naught...

Warmest regards,
John

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Q64oe.9868$Wr.5569@fed1read04...
> Does a knot in insulated 16g stranded wire pose a problem
> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
> away from the feedpoint & lock the antenna to it's center
> insulator.
>
> Ken
>
> --
> Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
> Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
> Proud builder & owner of Elecraft K2 #4913
>

260. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:51:26 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <kW6oe.25865$eR.16553@fe05.lga>
Source record: 75922

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:UV5oe.9951$Wr.2335@fed1read04...
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:Dq4oe.1762$rt3.45@fe03.lga...
>>
>> Sorry, Ken, knots are a no-no. DC can travel through them, but RF? Uhn Uh.
>> The RF gets all tied up in them and doesn't know which way to go, so the
>> power concentrates there and pulverizes both the wire and the insulation--the
>> knot goes pooof! And down comes the dipole. How much did you say you paid for
>> it?
>>
>> Walt, W2DU
>
> I didn't pay much for it. I had the coax & connector plus
> the center insulator. The wire was $3.30.
>
> FYI I'll only be putting 5-15 watts SSB/CW through the
> antenna on FD.
>
Ok, Ken, just make sure you put in at least a 20-watt knot, so you'll have a
little margin to spare.

Walt

261. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 00:54:58 UTC
From: Buck <iam@this.site>
Message-ID: <2uu1a11bvuglvjpklevnbq8e774c4blltj@4ax.com>
Source record: 75923

On Fri, 03 Jun 2005 18:37:18 -0500, Tom Ring <news0002@taring.org>
wrote:

>Cecil Moore wrote:
>
>>
>> Every day I kill thousands, if not millions, of living organisms
>> like staff bacteria and cold viruses. I am forced to consume a
>> liter of wine just to get rid of my guilt pangs. I wonder how
>> other Hindus handle their guilt over killing so many living
>> creatures every day of their lives?
>
>You should be doubly guilt panged, Cecil, just think of the billions of
>poor yeast that gave up the ghost to assuage your guilt.
>
>(He types between sips of Smithwick's Irish Ale)
>
>tom
>K0TAR

not to mention the billions of electrons that were displaced in the
delivery of all these messages ;)

--
73 for now
Buck
N4PGW

262. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 01:10:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qc7oe.134$bB.23636130@news.sisna.com>
Source record: 75828

Fred:

I wonder if most arent really aware that SWR is not real in a lot of cases where the term "swr" is bandied about (big deal, I don't believe in time either)--I have experienced large feedline radiation on almost perfect reading swr meters--I accept this as real--and still run with it (even if I lose 10 watts of 100, I don't sweat it anymore, heck, if Cecil splits his bottle of wine with me--I could careless about 20 watts <grin>)...

... however, I have noticed that it (the swr meter) slows the need to keep soldering new mrf4?? mosfets into the finals and linears of this new age--it is a cheap quick fix--and if transmitter loading is good, the finals are cool, I am good with it... and some just wanna get on the air... I will mess with an ant for best received signal--from there on out it is just crank power till we are at max--if needed--and if that fails a gentlemans admission of failure... and a gentleman ALWAYS uses minimum power for effective communication!!! <sly grin>

... the true art of dancing fairies on pins, and speaking in shakespeare to obfuscate the ideas which I express, and beginning to hold myself as superior in intelligence and mind games--I hold for a later date--which seems to be approaching far to fast for my liking... check back with me next week, I may have changed my mind... <grin>

Warmest regards,
John
"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:3cbc4$42a0f5ff$438df3df$3756@ALLTEL.NET...
> Only going from the last one I fooled with. I was unable to persuade
> the
> owner he would be better off tuning for field strength than SWR and
> the
> solution I purposed is one of many that will make a SWR meter happy
> along
> with those folks who are cult members of the church of no reflections.
>
> I make no claims that any other antenna in like or different
> circumstances
> will ever exhibit exactly 35 +j0 Ohms. If I gave that impression to
> the
> learned members of this conference, I humbly apologize for once again
> making
> a broad statement with out a list of qualifiers. Mea Culpa :>)
>

> The ubiquitous SWR meter, the greatest generator of misinformation
> since
> Baghdad Bob.
>
>
>
>
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11a1i7idgi14f12@corp.supernews.com...
>> Fred W4JLE wrote:
>> > First, I would say that 1.7 to 1 is fine, leave it alone. It is
>> > what is
>> > expected.
>> >
>> > That being said, the strident need to be 1:1 can be met in several
>> > ways.
> The
>> > antenna will probably be around 35 ohms. giving you the 1.7:1 you
> observe. . .
>>
>> I'm curious -- how did you determine from the SWR that the antenna
>> impedance would be resistive, and assuming it is, that it would be
>> less
>> than 50 ohms rather than greater? Perhaps you've measured a Hamstick
>> on
>> a typical mobile mount?
>>
>> Roy Lewallen, W7EL
>
>

263. Questions on Kenwood TKR-750 Repeater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 01:21:24 UTC
From: gargaare@yahoo.com
Message-ID: <1117848084.376173.102510@g44g2000cwa.googlegroups.com>
Source record: 75829

Hello All,

We bought a kenwood repeater TKR-750 and 2 diamond F23 antennas plus
the programming software.

Unfortunately we can't hear anything beyond one kilometer. Here are the
frequencies we are using:

TX 15900
RX 16000
TONE1413

The equipment are being used in africa in a remote location for an NGO
helping refugees I am back here in the states now.

I would appreciate any pointers from the group.

Thanks.

- Nur

264. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 01:22:00 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <Ym7oe.10037$Wr.2074@fed1read04>
Source record: 75830

"Buck" <iam@this.site> wrote in message
news:2uu1a11bvuglvjpklevnbq8e774c4blltj@4ax.com...
>
> not to mention the billions of electrons that were displaced in the
> delivery of all these messages ;)
> --
> 73 for now
> Buck
> N4PGW

1,771,561 tribbles, er, electrons. That's assuming 1 trib - electron,
multiplying with an average litter of 10, producing a new generation
every 12 hours for 3 days.

Cudos to Cmdr's Spock & Dax - does that label me a Trekkie?

LOL
--
Just my 2¢ worth... 73's es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
Proud builder & owner of Elecraft K2 #4913

265. Re: Questions on Kenwood TKR-750 Repeater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 02:34:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <cefdb$42a11355$438df3df$25778@ALLTEL.NET>
Source record: 75831

Need more input. How far apart are the antennas horizontally and vertically?
What filters are you using on the receiver input? I am assuming you mean
159 and 160 MHz. My first guess would be desensing, but without additional
info, it is just that.

<gargaare@yahoo.com> wrote in message
news:1117848084.376173.102510@g44g2000cwa.googlegroups.com...
> Hello All,
>
> We bought a kenwood repeater TKR-750 and 2 diamond F23 antennas plus
> the programming software.
>
> Unfortunately we can't hear anything beyond one kilometer. Here are the
> frequencies we are using:
>
> TX 15900
> RX 16000
> TONE1413
>
> The equipment are being used in africa in a remote location for an NGO
> helping refugees I am back here in the states now.
>
> I would appreciate any pointers from the group.
>
> Thanks.
>
> - Nur
>

266. Re: Questions on Kenwood TKR-750 Repeater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 02:57:44 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <irOdnaJ0-9YxhTzfRVn-3Q@comcast.com>
Source record: 75832

<gargaare@yahoo.com> wrote in message
news:1117848084.376173.102510@g44g2000cwa.googlegroups.com...
> Hello All,
>
> We bought a Kenwood repeater TKR-750 and 2 diamond F23 antennas plus
> the programming software.
>
> Unfortunately we can't hear anything beyond one kilometer.

It appears that you are buying hardware, and believe that this is "Plug and Play" - WRONG.

You appear to lack and understanding of how to properly design a repeater system. The equipment is EASY - proper design is the VALUE (and knowledge required) to have an efficient overall repeater system.

A repeater system is completely DIFFERENT than a normal radio usage or system - SINCE the transmitter and receiver are operating at the SAME TIME !

Since you have not mentioned the usage of a cavity filter (duplexer) for this system OR the spacing of the antennas -- I assume that the transmitter is "desensing" the repeater's receiver. (Think of it as you trying to hear a distant friend when someone next to you is shouting -- that's what is happening)

You MUST either user a 6 cavity or physically space the receiver and transmit antennas sufficiently apart (horizontally or vertically) so that the receiver is NOT desensed by the transmitter (at least 60 dB reduction of the transmitter at the receiver's input.

The ARRL FM and Repeater book (1970s) covered this in detail.
The Repeater Builder's Web Site -- will likely be very instructional for you
http://www.repeater-builder.com/rbtip/

> Here are the frequencies we are using:
>
> Tx: 159.000 MHz
> Rx: 160.000 MHz

I assume that these have been approved by the government body of the African country you are operating within? If NOT, you better address this first, or you may have addition issues. Definitely not an amateur radio frequency in your ITU Region.

OK, you have 1 MHz spacing between the receiver and transmitter. This is useful for your future calculation of how much isolation (dB) that you will require.

> CTCSS Frequency (sub-audible): 141.3 Hz

I edited your value - since I think you are saying you are using CTCSS at this frequency. First get the system running without CTCSS enabled - THEN you can worry about CTCSS

> The equipment are being used in Africa in a remote location for an NGO
> helping refugees I am back here in the states now.
> I would appreciate any pointers from the group.

Sit down and read and learn how to properly design a repeater system. I know engineers who have been doing it for years -- that still have to work on final system designs. Local terrain, coverage desired, antenna location and height are all CRITICAL factors for a good design. You will should be using accurate topology maps for the area.

Call or web site visit the Kenwood Land Mobile support department (California) and ask for Technical Assistance.
http://www.kenwood.net/indexKenwood.cfm?

>
> Thanks.
>
> - Nur
>

267. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 03:00:45 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <bs52a1dja775ufffg42plqgv0fii05m8q7@4ax.com>
Source record: 75833

On Fri, 3 Jun 2005 18:01:05 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>
>"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
>news:Q64oe.9868$Wr.5569@fed1read04...
>> Does a knot in insulated 16g stranded wire pose a problem
>> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
>> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
>> away from the feedpoint & lock the antenna to it's center
>> insulator.
>>
>> Ken
>Sorry, Ken, knots are a no-no. DC can travel through them, but RF? Uhn Uh. The
>RF gets all tied up in them and doesn't know which way to go, so the power
>concentrates there and pulverizes both the wire and the insulation--the knot
>goes pooof! And down comes the dipole. How much did you say you paid for it?

Reminds me of my youth. One of my earliest jobs was working in an
automotive parts store. This was back when you actually had to know
cars and how to read and look things up in paper catalogs and stuff
like that.

One test some of the oldtime mechanics would do on a new parts guy
would be something like asking for a set of spark plugs for a Cummins
diesel, a radiator cap for a Corvair or a pan gasket for a Powerglide
transmission. I fess up... they got me on the last one.

Ken, the only problem with the knot is that the wire will be weak at
that point.

268. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 03:42:47 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Mm9oe.47212$8S5.18751@bignews3.bellsouth.net>
Source record: 75834

I think John is right
Even though the antenna will work fine WITH the knots
if the owner of the antenna has doubts
then the knots should be removed post - haste.
all you need is that element of doubt
when you can't quite get thru the pileup.
Was it due to those 2 knots ?
Yeah - solder a jumper - or untie them for sure.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:5U6oe.131$%a1.23913501@news.sisna.com...
> Ken:
>
> Some of like to joke a bit, we mean no harm, please do not take
> offense... I really believe the general consensus is that the knot is no
> problem...
>
> ... now, that said, to tell you the truth, the knot just being there
> would bother me--and I think it does you too--I'd probably remove the
> knot and go to great ends to do it--but really, the knot matter
> naught...
>
> Warmest regards,
> John

269. Re: Free coaxial cable & connector catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 03:50:25 UTC
From: Albert & Btittany Spear <FLIR@yahoo.com>
Message-ID: <5y9oe.21590$4u.11960@newssvr33.news.prodigy.com>
Source record: 75835
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap

here , here, how about 1000 feet of 9914 OM?

<nm5k@wt.net> wrote in message
news:1117827308.085016.239010@f14g2000cwb.googlegroups.com...
>I don't really need a connector catalog, but I can always
> use free coaxial cable...I'm good in QRZ....MK
>

270. Re: Epoxy & microwaves?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 04:36:17 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <42A13027.1020205@nettally.com>
Source record: 75836
Cross-posted to: sci.electronics.basics,sci.electronics.design,sci.electronics.misc,sci.electronics.repair,alt.engineering.electrical,alt.plastic,rec.radio.amateur.antenna

Well the shorter they are (IE: UHF/Microwave antenna) the more
significant effect the dielectric support is going to have on the
overall electrical length. What frequency is this antenna?

Joe

DaveC wrote:

>On Wed, 1 Jun 2005 22:07:51 -0700, THE-RFI-EMI-GUY** wrote
>(in article <Huwne.89670$w15.67842@tornado.tampabay.rr.com>):
>
>
>
>>I calculated the percentage of rod length so affected, versus the
>>portion in freespace and surprisingly was able to pin down that the
>>resonance was where it belonged for the mechanical length of the
>>dipoles. We then trimmed the rods down and were satisfied with the
>>resonance.
>>
>>
>
>I was going to ball-park it by supporting only the centers of the rods,
>thereby minimizing the impact of the stand-offs. The rods are really short (~
>3 cm) so I'm betting that if I support only the center of each rod, they
>won't be impacted much.
>
>

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time
when he's only partially mad. And this is the time when he's
going to throw his best parties.

271. Re: Want RG-11 or similar 75 ohm coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 04:42:26 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Siaoe.151$iR4.25086093@news.sisna.com>
Source record: 75837
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna

I have seen piles of at a scrape metal yard here... also tons of state radios and equip... I bought some for just the high power rf transistors in 'em mrf454's and components... I usually go there for antenna projects and have noticed this stuff comes in from time to time... also have picked up some 800 mhz computers there, most worked great... here they have a $20 minimum purchase--no problem for me <grin>

Warmest regards,
John
"Justice Gustine" <justicegustine@yahoo.com> wrote in message
news:upb2a1h72vbubbdeq1msrcdp32tsm7kro1@4ax.com...
> "gb" <onw9mapsgb@no.arrl.spam.net> wrote:
>
>>"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
>>news:Xaune.11644$uR4.206@newsread2.news.atl.earthlink.net...
>>> 150 ft or more foam dielectric.
>>> Something like 1/2 inch CATV would be ok also.
>>>
>>> Doug N4IJ
>>>
>>Local CATV outlet will have end of reel lengths of 1/2 and 7/8
>>hard-line
>>that should meet your needs. They have to pay to send it to land
>>fills (so
>>you save them money)
>>
>>GB
>
> Some sell it to scrap dealers and may not be so generous.
>
>
> --
> "A Sound Mind. A Healthy Body. Pick One" Mr. Hedge

272. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 13:15:39 UTC
From: Russ Renaud <va3rr@yahoo.ca>
Message-ID: <-4adna7GUdPlNDzfRVn-jg@teksavvy.com>
Source record: 75838
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

DaveC wrote:
> Microwave corrugated horn at the end of the wave guide has multiple choke
> rings.
>
> What point is considered the focus point of the horn. The feed point for the
> dish is calculated and known, but I'm not sure what point of the feed horn to
> considered when aligning the horn to the dish.
>
> I'm not going to use this horn, but simply want to determine where the focal
> point of the horn is so as to place my own 2.4 GHz feed at that location.
>
> This is on a surplus Direct TV feed.

Hi Dave.

W1GHZ has an application that will determine the focus of your dish for you.

However, I find it easier just to attach a few small mirrors on the dish
and point it at the sun to determine the focal point of your dish. See

http://www.qsl.net/va3rr/dualmode/dual_mode.htm

Now you just have to figure out where the phase centre of your feed is...

273. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 15:31:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7shg7$cl3$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75839

A knot in an antenna wire will have absolutely no electrical effect
below about 200 MHz.

But it will mechanically weaken the wire. During the next hurricane or
loading with ice it will be more likely to break.

Reg, G4FGQ

274. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 15:51:23 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11a3jg5pme9lh61@corp.supernews.com>
Source record: 75840

The question was not the soldering iron...how did you regulate the temperature of the secretary?

Jim

> I was using one at a bench when a secretary asked me what the
> knot was for. I told her that's how we regulate the temperature
> of the iron - the tighter the knot, the fewer the electrons
> getting to the heating element. Physics was not her long suit.

275. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 15:52:17 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11a3jhsalbrd98b@corp.supernews.com>
Source record: 75841

No, no, no. If you put in a 20 knot watt, you can't run fast enough to
catch up to it.

Jim

> Ok, Ken, just make sure you put in at least a 20-watt knot, so you'll have
> a little margin to spare.
>
> Walt
>

276. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 16:54:23 UTC
From: "C. J. Clegg" <answer.to.newsgroup@nospam.com>
Message-ID: <s3n3a1hr3mfsbrl7ijaa27eepl2idd44jt@4ax.com>
Source record: 75843

On Wed, 01 Jun 2005 00:47:19 GMT, Bob Miller <NOSPAM@neosoft.com>
wrote:

>By the way, curious, but what does Honda charge for a factory
>installed cb setup?

I don't really remember. We had the CB installed when we got the
bike, back in 1991. It was a few hundred bucks at least, as I recall.

277. Re: IC-706 on motorcycle; HF - CB interaction (damage to CB)?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 17:11:37 UTC
From: "C. J. Clegg" <answer.to.newsgroup@nospam.com>
Message-ID: <7on3a19obneao6bqrd9566r9r94ukvogoo@4ax.com>
Source record: 75844

Thanks to all for your helpful information on this topic. And thanks also for the notes on proximity of the operator to the antenna. This is also of a concern to me, but it's a different question so I didn't mention it in my original post.

The fact is, I'd be doing about 98 percent listening and 2 percent talking anyway, and so I'm currently somewhat more concerned about damage to equipment than damage to my brain which is already fairly damaged anyway according to my XYL... ;-)

As for opening up the 706 to transmit out-of-band, this rig has that mod (for MARS). If I didn't already have the integrated CB in the Gold Wing I might consider using the 706 on CB and take my chances on getting caught, but since the legal radio is already there, may as well use it.

278. Deep South 2 Meter SSB Net - every night 8:30pm CT 144.240

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 17:40:38 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11a3ptp50es0ac8@news.supernews.com>
Source record: 75845
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

Deep South 2 Meter SSB Net Website - www.deepsouthnet.net

Just a reminder..the Deep South 2 Meter SSB Net has been QRV now for nearly 2 months. We have nearly 40 SSB ops on the roster already! Net control is Charlie,AD5TH in EM52 - Union,.Mississippi

Join us each evening at 8:30PM CDT on 144.240mhz USB. The net features...

1. Nightly roaster and membership report
2. Mission statement of Deep South Net
3. Ham Radio Interesting Fact of the Day!
4. Roll Call !! (Members and recent check-ins)
a. Call for Member traffic
5. Call for guests and visitors
a. Call for Guests and Visitors traffic
6. Last Call for Check-ins!
7. Open Forum "Beef Box" comments and remarks segment
8. Swap MEET!
9. Net closure proceedings...check-in report , final comments from Net Control
--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net
Live Blues Music
www.492acousticblues.com

279. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 18:06:18 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a3kgnfktq3ece@corp.supernews.com>
Source record: 75842

snip

> >> I'm curious -- how did you determine from the SWR that the antenna
> >> impedance would be resistive, and assuming it is, that it would be
> >> less
> >> than 50 ohms rather than greater? Perhaps you've measured a Hamstick
> >> on
> >> a typical mobile mount?
> >>
> >> Roy Lewallen, W7EL
> >
> >
>
>

Roy spurred me to type:

I use a screwdriver matched with a simple toroidal autoformer.
I tuned the antenna for a purely resistive load using an analyzer.
Turns out it was 20 - 30 ohms on 40 meters, IIRC.
Then I wound 14 turns of copper wire around a toroid, connecting one end to
the coax center
and the other to coax shield and chassis ground.
Then I tapped the antenna on to the autoformer such that,
looking down the coax, the analyzer saw 50 ohms.
I use this matching configuration for 160 - 20.
I get the best VSWR and field strength of many variations I've tried over
the years.
On the higher bands I just hook up the coax and tune for minimum VSWR at the
transceiver.

73, H.,

H. Adam Stevens
NQ5H

280. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 18:06:28 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11a3rdbnnvstkb0@corp.supernews.com>
Source record: 75846

Nope!unless it might be mega-kink per inch sq....hey; mega-kink per inch sq. that might wind up being something close to 1.5" copper pipe which would be great. Just figure up some means of support for it. This is a winner Ken. We can name it the Kenneth Kilo-Killer-Kink.

Butch KF5DE

>Does a knot in insulated 16g stranded wire pose a problem
>for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
>operating 40-10m with a KAT2 autotuner. The knots are 1/2"
>away from the feedpoint & lock the antenna to it's center
>insulator.
>
>Ken
>
>--
> Just my 2ï¿½ worth... 73's es gd dx de Ken KGï¿½WX
>Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
> Proud builder & owner of Elecraft K2 #4913
>
>
>
>

281. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 18:29:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Dqmoe.192$%73.28105784@news.sisna.com>
Source record: 75849

Bill:

I don't like to think of it that way...
I think it is more like I am "pardoning them" after they have served
their sentence... and once again they are free men... err, free
bacteria...

John

"Bill Turner" <noway@nohow.com> wrote in message
news:2ar3a1177pi8g0qeupr0030q98p8senfmk@4ax.com...
> On Fri, 03 Jun 2005 18:37:18 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>>You should be doubly guilt panged, Cecil, just think of the billions
>>of
>>poor yeast that gave up the ghost to assuage your guilt.
>
> ----------
>
> Without getting overly gross, human feces are comprised of a large
> percentage of bacteria. Every time you do a you-know-what, you are
> sentencing them all to death. And this after they have helped you
> digest
> your food too!
>
> Bunch of ingrates. :-)
>
> --
> Bill, W6WRT

282. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 18:30:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7ss0t$6ol$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75847

Regarding transmission lines, as somebody who has never thorougly
learned how to use a Smith Chart, it has never been worth the trouble,
I would like to say that the underlying, common sense, logical
mathematics are much easier to understand.

Reg

283. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 18:38:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3zmoe.193$sC3.28178505@news.sisna.com>
Source record: 75848

Reg:

As usual you are right on key...
If you know math, if you are not afraid of using complex formulas in computations (and especially if you have a programmable calculator in your back pocket) the math is much more appealing than charts--still, the chart has uses... not all directly related to the math (my gf's think they look kewl--frankly, I might get laid a tad more often just for displaying a smith chart--women are hung up on intelligent men yanno--I wonder if smith ever realized that? <grin>)...

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d7ss0t$6ol$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Regarding transmission lines, as somebody who has never thorougly
> learned how to use a Smith Chart, it has never been worth the trouble,
> I would like to say that the underlying, common sense, logical
> mathematics are much easier to understand.
> ----
> Reg
>
>

284. antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 19:48:36 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <fb04a1t0b9qa4143rh26qkbaqb32uq0pq7@4ax.com>
Source record: 75851

Having never wound a balun before, pardon if this is an elementary question, but...

I recently got a Murch 2000B antenna tuner off eBay. It's a commercial version of the so-called ultimate transmatch. A T-network design.

For balanced line, it has a "broadband toroidal transformer" according to the review in a 1980 QST. When I place a VOM multi-meter across the two balanced line terminals, it shows continuity. Is that normal, or is the balun cooked or shorted?

Thanks for any info.

Bob
k5qwg

285. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 19:55:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a20802$1_1@spool9-west.superfeed.net>
Source record: 75850

Bill Turner wrote:
> Odd how a seemingly minor event can change one's life, isn't it?

I went into electrical engineering to find out how
my ham radio worked. That eventually led to my Intel
stock options splitting 7 times.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

286. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 19:58:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a208d3$1_1@spool9-west.superfeed.net>
Source record: 75854

Bob Miller wrote:
> For balanced line, it has a "broadband toroidal transformer" according
> to the review in a 1980 QST. When I place a VOM multi-meter across the
> two balanced line terminals, it shows continuity. Is that normal, or
> is the balun cooked or shorted?

It's probably a 4:1 voltage balun which does exhibit
a DC short. That's actually good for cutting down on
static electricity.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

287. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 20:01:09 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <aMnoe.202$qV5.28957833@news.sisna.com>
Source record: 75858

Bob:

Totally normal, in fact, if you check secondary to primary--will also
show continuity--it is normal too...look at a schematic of a torrid
balun on the net, all windings have some sort of connection to all
others... in a "rf transformer" with seperate primary/secondary there
will be electrical isolation between windings...

Warmest regards,
John
"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:fb04a1t0b9qa4143rh26qkbaqb32uq0pq7@4ax.com...
> Having never wound a balun before, pardon if this is an elementary
> question, but...
>
> I recently got a Murch 2000B antenna tuner off eBay. It's a commercial
> version of the so-called ultimate transmatch. A T-network design.
>
> For balanced line, it has a "broadband toroidal transformer" according
> to the review in a 1980 QST. When I place a VOM multi-meter across the
> two balanced line terminals, it shows continuity. Is that normal, or
> is the balun cooked or shorted?
>
> Thanks for any info.
>
> Bob
> k5qwg
>
>

288. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 20:11:38 UTC
From: dplatt@radagast.org
Message-ID: <11a42nqsifla60e@corp.supernews.com>
Source record: 75853

In article <fb04a1t0b9qa4143rh26qkbaqb32uq0pq7@4ax.com>,
Bob Miller <NOSPAM@neosoft.com> wrote:

>For balanced line, it has a "broadband toroidal transformer" according
>to the review in a 1980 QST. When I place a VOM multi-meter across the
>two balanced line terminals, it shows continuity. Is that normal, or
>is the balun cooked or shorted?

Very probably normal... or, at least, to be expected of many types
of balun and thus not diagnostic of a failure. You're probably
reading the DC resistance one or more of the windings, which would be
rather less than an ohm.

Based on what I see in Sevick's book on baluns and ununs, both the
Guanella 4:1 current balun and the various Ruthroff voltage balun
configurations would exhibit this behavior. A Guanella 1:1 with the
center of the load un-grounded would not, nor would a Reisert or W2DU
1:1 balun.

Now, for something completely different. If you want to revisit an
old controversy, and if you're not adverse to modifying a classic
piece of equipment, you might want to review the various debates about
the pros and cons of the Ultimate Transmatch vs. the SPC
configuration. See if you can locate a copy of the August 1981 QST,
and review the Technical Correspondence column on pages 42-43.

As I understand it, the SPC configuration can be shown to have some
significant technical advantages over the Ultimate Transmatch, in terms
of matching range and harmonic attenuation, when the same component
values are used in each. It is reportedly possible to re-wire an
Ultimate into an SPC configuration little or no cost, as both use a
split-stator capacitor (just in different places in the circuit).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

289. Please email me

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 20:11:44 UTC
From: Johnny Williams <kf4vgx@sc.rr.com>
Message-ID: <MPG.1d0bd50f6a4696fd989697@news.usenetserver.com>
Source record: 75855

I'm just a lonely ham. Nobody wants to play radio
with me. Please e-mail me. I'm tired of emailing
myself, it's no fun anymore.

Johnny Williams
kf4vgx@sc.rr.com

290. Re: Please email me

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 20:26:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <o8ooe.203$QW5.29007995@news.sisna.com>
Source record: 75860

Oh yeah, we will just fire up our email clients and begin spamming a
poor old guy which probably has no knowledge on how to avert the deluge
of email he will fall victim to... get a life bum!

Warmest regards,
John

"Johnny Williams" <kf4vgx@sc.rr.com> wrote in message
news:MPG.1d0bd50f6a4696fd989697@news.usenetserver.com...
> I'm just a lonely ham. Nobody wants to play radio
> with me. Please e-mail me. I'm tired of emailing
> myself, it's no fun anymore.
>
> Johnny Williams
> kf4vgx@sc.rr.com
>

291. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 20:49:51 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <nc44a194elk81hgiidnve4imvcpqnsm6c2@4ax.com>
Source record: 75856

On Sat, 04 Jun 2005 20:11:38 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>In article <fb04a1t0b9qa4143rh26qkbaqb32uq0pq7@4ax.com>,
>Bob Miller <NOSPAM@neosoft.com> wrote:
>
>>For balanced line, it has a "broadband toroidal transformer" according
>>to the review in a 1980 QST. When I place a VOM multi-meter across the
>>two balanced line terminals, it shows continuity. Is that normal, or
>>is the balun cooked or shorted?
>
>Very probably normal... or, at least, to be expected of many types
>of balun and thus not diagnostic of a failure. You're probably
>reading the DC resistance one or more of the windings, which would be
>rather less than an ohm.
>
>Based on what I see in Sevick's book on baluns and ununs, both the
>Guanella 4:1 current balun and the various Ruthroff voltage balun
>configurations would exhibit this behavior.

I kinda suspected so, but wasn't sure.

> A Guanella 1:1 with the
>center of the load un-grounded would not, nor would a Reisert or W2DU
>1:1 balun.
>
>Now, for something completely different. If you want to revisit an
>old controversy, and if you're not adverse to modifying a classic
>piece of equipment, you might want to review the various debates about
>the pros and cons of the Ultimate Transmatch vs. the SPC
>configuration. See if you can locate a copy of the August 1981 QST,
>and review the Technical Correspondence column on pages 42-43.
>
>As I understand it, the SPC configuration can be shown to have some
>significant technical advantages over the Ultimate Transmatch, in terms
>of matching range and harmonic attenuation, when the same component
>values are used in each. It is reportedly possible to re-wire an
>Ultimate into an SPC configuration little or no cost, as both use a
>split-stator capacitor (just in different places in the circuit).

Thanks, Dave, I have a 1985 arrl handbook that shows the differences
between the Ultimate Transmatch and the SPC circuit, and I also have
some modification instructions on the Murch unit itself, but I haven't
tried changing anything yet. Still playing with it, as it came.

Bob
k5qwg

292. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 20:52:46 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <d054a1d449u2f1hhajv54c3j6temn964ks@4ax.com>
Source record: 75857

On Sat, 04 Jun 2005 14:58:33 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Bob Miller wrote:
>> For balanced line, it has a "broadband toroidal transformer" according
>> to the review in a 1980 QST. When I place a VOM multi-meter across the
>> two balanced line terminals, it shows continuity. Is that normal, or
>> is the balun cooked or shorted?
>
>It's probably a 4:1 voltage balun which does exhibit
>a DC short. That's actually good for cutting down on
>static electricity.

Thanks, Cecil, I noticed a more up-to-date MFJ tuner doesn't show
continuity across the balanced line terminals; just wanted to make
sure the Murch balun wasn't whacked out.

Bob
k5qwg

293. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 21:01:25 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HEooe.209$G%5.29069337@news.sisna.com>
Source record: 75859

Bob:

If you don't mind me asking--how much did you pay for it, I have one in the barn here I bought as lot with other gear from an estate sale--just wondering...

John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message news:nc44a194elk81hgiidnve4imvcpqnsm6c2@4ax.com...
> On Sat, 04 Jun 2005 20:11:38 -0000, dplatt@radagast.org (Dave Platt)
> wrote:
>
>>In article <fb04a1t0b9qa4143rh26qkbaqb32uq0pq7@4ax.com>,
>>Bob Miller <NOSPAM@neosoft.com> wrote:
>>
>>>For balanced line, it has a "broadband toroidal transformer"
>>>according
>>>to the review in a 1980 QST. When I place a VOM multi-meter across
>>>the
>>>two balanced line terminals, it shows continuity. Is that normal, or
>>>is the balun cooked or shorted?
>>
>>Very probably normal... or, at least, to be expected of many types
>>of balun and thus not diagnostic of a failure. You're probably
>>reading the DC resistance one or more of the windings, which would be
>>rather less than an ohm.
>>
>>Based on what I see in Sevick's book on baluns and ununs, both the
>>Guanella 4:1 current balun and the various Ruthroff voltage balun
>>configurations would exhibit this behavior.
>
> I kinda suspected so, but wasn't sure.
>
>> A Guanella 1:1 with the
>>center of the load un-grounded would not, nor would a Reisert or W2DU
>>1:1 balun.
>>
>>Now, for something completely different. If you want to revisit an
>>old controversy, and if you're not adverse to modifying a classic
>>piece of equipment, you might want to review the various debates about
>>the pros and cons of the Ultimate Transmatch vs. the SPC
>>configuration. See if you can locate a copy of the August 1981 QST,
>>and review the Technical Correspondence column on pages 42-43.
>>

>>As I understand it, the SPC configuration can be shown to have some
>>significant technical advantages over the Ultimate Transmatch, in
>>terms
>>of matching range and harmonic attenuation, when the same component
>>values are used in each. It is reportedly possible to re-wire an
>>Ultimate into an SPC configuration little or no cost, as both use a
>>split-stator capacitor (just in different places in the circuit).
>
> Thanks, Dave, I have a 1985 arrl handbook that shows the differences
> between the Ultimate Transmatch and the SPC circuit, and I also have
> some modification instructions on the Murch unit itself, but I haven't
> tried changing anything yet. Still playing with it, as it came.
>
> Bob
> k5qwg
>
>
>

294. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 21:08:47 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ai54a1ppe1eku2afjo01l4elvarkp2thbo@4ax.com>
Source record: 75861

On Sat, 04 Jun 2005 14:58:33 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Bob Miller wrote:
>> For balanced line, it has a "broadband toroidal transformer" according
>> to the review in a 1980 QST. When I place a VOM multi-meter across the
>> two balanced line terminals, it shows continuity. Is that normal, or
>> is the balun cooked or shorted?
>
>It's probably a 4:1 voltage balun which does exhibit
>a DC short. That's actually good for cutting down on
>static electricity.

Okay, Cecil, Dave, one more elementary question. My copy of the
instructions for the Murch 2000B says the following:

"Connect balanced line to connection marked Balance Line with Jumper
as indicated on back panel."

On the back panel, there's a painted line between the two balanced
line connections. Surely, they don't mean to run a jumper wire between
the two connections *while* a balanced line is attached?

It seems to tune fine without the jumper -- I'm afraid I'd blow
something up with the jumper.

Bob
k5qwg

295. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 21:21:10 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <bl64a1psukh63ngne6q8gs3oen3f9g0sad@4ax.com>
Source record: 75862

On Sat, 4 Jun 2005 14:01:25 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Bob:
>
>If you don't mind me asking--how much did you pay for it, I have one in
>the barn here I bought as lot with other gear from an estate sale--just
>wondering...
>
>John

The eBay bidding started at $100. There were 20 bids, and it finally
ended up at $171, plus $20 for shipping.

The case is a little scratched up, but the front panel and inside
components look good.

Bob
k5qwg

296. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 21:37:24 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a40si7916gaf@corp.supernews.com>
Source record: 75852

"Bill Turner" <noway@nohow.com> wrote in message
news:8fq3a1pb65agelpn97udc9pdv55lnguvh1@4ax.com...
> On Fri, 3 Jun 2005 15:53:31 -0400, "Fred W4JLE" <w4jle@w4jle.com> wrote:
>
> >First, I would say that 1.7 to 1 is fine, leave it alone. It is what is
> >expected.
>
> ----------
>
> Fred is correct and you can prove it to your own satisfaction if you
> like:
>
> Place a field strength meter nearby, close enough so you can read the
> meter, and sweep your transmitter across the band. You will find your
> power output is remarkably constant whether the SWR is 1:1 or 1.7:1.
>
> There will be some variation of course, but when you find the bandwidth
> where it drops no more than about 90% or so, you can operate confidently
> anywhere in that region without worrying about SWR.
>
> Works for me.
>
> --
> Bill, W6WRT

Just a quick back-of-the-envelope calculation.

SWR' = 1.7

or SWR" = 1.0

Let's assume worst case; all the reflected power is absorbed in the source.
This is not necesssarily the case, but gives us the least signal strength in
the high SWR case, SWR'.

So then, comparing the two cases, the change in power to the load in db is
10*log(SWR'/SWR").

SWR'/SWR" = 1.7

2.3 db, barely detectable, worst case.

So it's a question of how much reflected power can the rig tolerate as well.

73
H.
NQ5H

297. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 21:46:06 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Fipoe.215$ex7.30065821@news.sisna.com>
Source record: 75863

WOW, that makes me smile... I am going to dig it out!

Warmest regards,
John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:bl64a1psukh63ngne6q8gs3oen3f9g0sad@4ax.com...
> On Sat, 4 Jun 2005 14:01:25 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Bob:
>>
>>If you don't mind me asking--how much did you pay for it, I have one
>>in
>>the barn here I bought as lot with other gear from an estate
>>sale--just
>>wondering...
>>
>>John
>
> The eBay bidding started at $100. There were 20 bids, and it finally
> ended up at $171, plus $20 for shipping.
>
> The case is a little scratched up, but the front panel and inside
> components look good.
>
> Bob
> k5qwg
>
>
>

298. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 22:22:24 UTC
From: dplatt@radagast.org
Message-ID: <11a4ad07hrag964@corp.supernews.com>
Source record: 75864

In article <ai54a1ppe1eku2afjo01l4elvarkp2thbo@4ax.com>,
Bob Miller <NOSPAM@neosoft.com> wrote:

>>It's probably a 4:1 voltage balun which does exhibit
>>a DC short. That's actually good for cutting down on
>>static electricity.
>
>Okay, Cecil, Dave, one more elementary question. My copy of the
>instructions for the Murch 2000B says the following:
>
>"Connect balanced line to connection marked Balance Line with Jumper
>as indicated on back panel."
>
>On the back panel, there's a painted line between the two balanced
>line connections. Surely, they don't mean to run a jumper wire between
>the two connections *while* a balanced line is attached?

No, I think the painted line is meant to indicate "the line is
connected to/between these two points." The "jumper" they refer to
probably refers to a short section of balanced line, to be connected
between the transmatch and whatever terminals you use to terminate the
ladder-line or open-wire line when it comes into your shack.

>It seems to tune fine without the jumper -- I'm afraid I'd blow
>something up with the jumper.

Yeah, you'd be trying to tune a near-short-circuit... often difficult
and the results are less than productive :-)

There are some transmatches in which the balun is normally out of
circuit, and has to be jumpered to the hot side of the unbalanced
output when you want to use it. That *might* be what they're
referring to?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

299. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-04 23:57:15 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <xdroe.4041$Er.2438@fed1read02>
Source record: 75865
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a0acff$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> ... how we slaughtered helpless indians with bows and arrows with our
>> rifles...
>
> Custer might disagree with you on just how
> helpless those Indians were. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

IIRC, the 7th was using US issue single-shot, rolling block rifles. Studies of the distribution of spent cartridge cases indicates that the Indians had quite a few Winchester repeating rifles. Further, Custer had left his battery of Gatling guns far behind, as he felt they slowed his maneuver ability.

--
Ed
WB6WSN
El Cajon, CA USA

300. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 00:24:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a24718$1_2@spool9-west.superfeed.net>
Source record: 75866

Bob Miller wrote:
> Okay, Cecil, Dave, one more elementary question. My copy of the
> instructions for the Murch 2000B says the following:
>
> "Connect balanced line to connection marked Balance Line with Jumper
> as indicated on back panel."
>
> On the back panel, there's a painted line between the two balanced
> line connections. Surely, they don't mean to run a jumper wire between
> the two connections *while* a balanced line is attached?
>
> It seems to tune fine without the jumper -- I'm afraid I'd blow
> something up with the jumper.

If it's like my MFJ-949E, the balun is completely out of the
circuit until the jumper is installed. Without the jumper on
the MFJ, there would be no output at the balanced line
output terminals. Do you have a schematic?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

301. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 00:28:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a2481a$1_1@spool9-west.superfeed.net>
Source record: 75867
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Ed Price wrote:
> IIRC, the 7th was using US issue single-shot, rolling block rifles. Studies
> of the distribution of spent cartridge cases indicates that the Indians had
> quite a few Winchester repeating rifles. Further, Custer had left his
> battery of Gatling guns far behind, as he felt they slowed his maneuver
> ability.

I've always wanted to go back in time and take a few
Gatling guns back to the Alamo - and maybe a few cases
of hand grenades.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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302. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 01:01:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kmj4a15tutarndljotlljmus29bgvhhb9l@4ax.com>
Source record: 75868

On Fri, 3 Jun 2005 16:45:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The beauty of a Smith Chart derives from the underlying Mathematics.
>Mathematics is pure intellectual beauty.

303. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 01:11:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eej4a1duvgcvj04qgnimvk7ksc92rqrkuq@4ax.com>
Source record: 75869

On Fri, 3 Jun 2005 16:45:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The beauty of a Smith Chart derives from the underlying Mathematics.
>Mathematics is pure intellectual beauty.
>
>In this case the underlying functions and their inverses are the
>Complex Hyperbolic Functions like Sinh, Cosh and Tanh ...

>Now, complex hyperbolic functions are 3 dimensional things. They have
>two linear dimensions and angles. They cannot be represented on a flat
>paper chart. They need a whole stack of charts.

On Sat, 4 Jun 2005 18:30:54 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>as somebody who has never thorougly
>learned how to use a Smith Chart, it has never been worth the trouble,
>I would like to say that the underlying, common sense, logical
>mathematics are much easier to understand.

Hmm,

Same topic, same math, same correspondent, same language (apparently),
two different and diverging points of view (the last couched in double
negatives) -and- consistent(ly amusing).

I am at a loss to read these statements as Art criticism, Pedagogy,
Historical Romance, or what?

73's
Richard Clark, KB7QHC

304. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 01:40:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dgl4a1tlde8jnp3t2o96ne8eokh3lo2sf2@4ax.com>
Source record: 75870

On Sat, 04 Jun 2005 18:01:12 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 3 Jun 2005 16:45:12 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>The beauty of a Smith Chart derives from the underlying Mathematics.
>>Mathematics is pure intellectual beauty.

Hi Reg,

My cat Blacky sent that one while walking across the keyboard - purely
his choice, he usually prefers the privacy of email. He would have
added some comment, but you might know how cats change their mind in
the middle of things.

73's
Richard Clark, KB7QHC

305. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 01:41:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a4m32i6l2u140@corp.supernews.com>
Source record: 75871

H. Adam Stevens, NQ5H wrote:
>
> Just a quick back-of-the-envelope calculation.
>
> SWR' = 1.7
>
> or SWR" = 1.0
>
> Let's assume worst case; all the reflected power is absorbed in the source.
> This is not necesssarily the case, but gives us the least signal strength in
> the high SWR case, SWR'.
>
> So then, comparing the two cases, the change in power to the load in db is
> 10*log(SWR'/SWR").
>
> SWR'/SWR" = 1.7
>
> 2.3 db, barely detectable, worst case.
>
> So it's a question of how much reflected power can the rig tolerate as well.

That calculation completely baffles me.

The ALC in my Icom rig keeps the forward power constant up to the point where it reduces power, at around 3:1 SWR. This is typical for commercial rigs. The rig delivers 100 watts to a 1:1 SWR load. (Techically, this really means a load which, if terminating a 50 ohm line, will produce 1:1 SWR on that line.) 1.7:1 SWR is a reverse/forward power ratio of 0.067. The ALC keeps the forward power at 100 watts, so with 1.7:1 SWR, the reverse power is 6.7 watts. The net power delivered to the load is 100 - 6.7 = 93.3 watts, or 0.3 dB, not 2.3 dB, less than the power delivered to a 1:1 load.

Oh, and the "reverse power" isn't "absorbed in the source". Anyone interested in learning more about this might take a look at "Food for thought - Forward and Reverse Power.txt" at http://eznec.com/misc/food_for_thought/.

Roy Lewallen, W7EL

306. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 01:53:29 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <cqk4a1deh66lc0p51041tni6iso68cieap@4ax.com>
Source record: 75872

On Sat, 04 Jun 2005 19:24:15 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Bob Miller wrote:
>> Okay, Cecil, Dave, one more elementary question. My copy of the
>> instructions for the Murch 2000B says the following:
>>
>> "Connect balanced line to connection marked Balance Line with Jumper
>> as indicated on back panel."
>>
>> On the back panel, there's a painted line between the two balanced
>> line connections. Surely, they don't mean to run a jumper wire between
>> the two connections *while* a balanced line is attached?
>>
>> It seems to tune fine without the jumper -- I'm afraid I'd blow
>> something up with the jumper.
>
>If it's like my MFJ-949E, the balun is completely out of the
>circuit until the jumper is installed. Without the jumper on
>the MFJ, there would be no output at the balanced line
>output terminals. Do you have a schematic?

Sorry, I don't have a schematic.

On my MFJ 989c, I have two balanced line connectors. I also have a 3rd
connector for Random Wire, and a 4th odd connector. For balanced line
operation, I install a jumper between the Random Wire and 4th
connectors.

On the Murch 2000B, there are two connectors for balanced line. And a
3rd connector for Random Wire. The directions seem to be saying put a
jumper on the balanced line connectors for balanced line operation.

"Connect any antenna with single wire feed to connection marked Random
Wire. Connect balanced line to connection marked Balanced Line with
Jumper as indicated on back panel." (and there's a painted line
between the Balanced Line connectors.)

If it's helpful, there are pictures, inside & out, of the Murch tuner
at
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=48711&item=5757714402

Bob
k5qwg

307. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 02:02:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8fe33$42a25d4c$438df3df$31487@ALLTEL.NET>
Source record: 75873

I would disagree with your statement about SWR being absorbed in the source.
The reflected wave is rereflected and aside from losses caused by the 2 way
trip is reradiated.

While your math is correct, your application in my opinion is incorrect.

"H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
news:11a40si7916gaf@corp.supernews.com...
>
> "Bill Turner" <noway@nohow.com> wrote in message
> news:8fq3a1pb65agelpn97udc9pdv55lnguvh1@4ax.com...
> > On Fri, 3 Jun 2005 15:53:31 -0400, "Fred W4JLE" <w4jle@w4jle.com> wrote:
> >
> > >First, I would say that 1.7 to 1 is fine, leave it alone. It is what is
> > >expected.
> >
> > ____
> >
> > Fred is correct and you can prove it to your own satisfaction if you
> > like:
> >
> > Place a field strength meter nearby, close enough so you can read the
> > meter, and sweep your transmitter across the band. You will find your
> > power output is remarkably constant whether the SWR is 1:1 or 1.7:1.
> >
> > There will be some variation of course, but when you find the bandwidth
> > where it drops no more than about 90% or so, you can operate confidently
> > anywhere in that region without worrying about SWR.
> >
> > Works for me.
> >
> > --
> > Bill, W6WRT
>
> Just a quick back-of-the-envelope calculation.
>
> SWR' = 1.7
>
> or SWR" = 1.0
>
> Let's assume worst case; all the reflected power is absorbed in the
source.
> This is not necesssarily the case, but gives us the least signal strength
in
> the high SWR case, SWR'.

>
> So then, comparing the two cases, the change in power to the load in db is
> 10*log(SWR'/SWR").
>
> SWR'/SWR" = 1.7
>
> 2.3 db, barely detectable, worst case.
>
> So it's a question of how much reflected power can the rig tolerate as
well.
>
> 73
> H.
> NQ5H
>
>
>

308. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 02:35:08 UTC
From: Buck <iam@this.site>
Message-ID: <u5p4a1l6ftnl0rqmi38q8r366ub7m5u119@4ax.com>
Source record: 75874

On Sat, 4 Jun 2005 15:31:19 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>A knot in an antenna wire will have absolutely no electrical effect
>below about 200 MHz.
>
>But it will mechanically weaken the wire. During the next hurricane or
>loading with ice it will be more likely to break.
>----
>Reg, G4FGQ
>

Your answer is surely correct, but not as interesting as the other
threads.

CUL after catching up to my secretary......

--
73 for now
Buck
N4PGW

309. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 02:49:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a2691e$1_2@spool9-west.superfeed.net>
Source record: 75775

Bob Miller wrote:
> "Connect any antenna with single wire feed to connection marked Random
> Wire. Connect balanced line to connection marked Balanced Line with
> Jumper as indicated on back panel." (and there's a painted line
> between the Balanced Line connectors.)
>
> If it's helpful, there are pictures, inside & out, of the Murch tuner at
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=48711&item=5757714402

I suspect the jumper wire needs to go between the random wire
terminal and one of the balanced line terminals. That's the
way it is on my MFJ. On the inside, do the balanced line
terminals go anywhere besides the balun?
--
73, Cecil http://www.qsl.net/w5dxp

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310. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 03:00:48 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-5D8F7E.20004704062005@news.newsguy.com>
Source record: 75777
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <42a2481a$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

> I've always wanted to go back in time and take a few
> Gatling guns back to the Alamo - and maybe a few cases
> of hand grenades.

You do realize that Texas was part of Mexico before we stole it?

Tony

311. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 03:10:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a26dff$1_1@spool9-west.superfeed.net>
Source record: 75776

Fred W4JLE wrote:
> I would disagree with your statement about SWR being absorbed in the source.
> The reflected wave is rereflected and aside from losses caused by the 2 way
> trip is reradiated.

Reflected current flowing into the final amp can superpose in
phase with the forward current and, without protection circuitry,
cause the final amp to exceed its dissipation rating.

Another possibility is when the reflected voltage superposes
in phase with the forward voltage, and without protection
circuitry, exceeds the voltage rating of the final.

If all reflected power was always re-reflected, there would
be no need for protection circuitry. The generated power is
defined as the forward power minus the reflected power. That
does NOT mean that the reflected power is 100% re-reflected.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

312. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 03:21:08 UTC
From: dplatt@radagast.org
Message-ID: <11a4rt4si2hht2f@corp.supernews.com>
Source record: 75779

>> "Connect any antenna with single wire feed to connection marked Random
>> Wire. Connect balanced line to connection marked Balanced Line with
>> Jumper as indicated on back panel." (and there's a painted line
>> between the Balanced Line connectors.)
>>
>> If it's helpful, there are pictures, inside & out, of the Murch tuner at
>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=48711&item=5757714402
>
>I suspect the jumper wire needs to go between the random wire
>terminal and one of the balanced line terminals. That's the
>way it is on my MFJ. On the inside, do the balanced line
>terminals go anywhere besides the balun?

According to one note I saw on the net, many of the Ultimate
Transmatch designs had an internal strap/jumper to connect the
unbalanced tuner circuitry to the balun, when necessary.

I rather strongly suspect that this is the case for the Murch. The
photos show that it has internal switching of the tuner output. The
switch has five positions - 1 2 3 (which I assume correspond
to the three unbalanced jacks) and two I can't really read clearly in
the photo - perhaps the random-wire output, and the balun for the
balanced output?

Sounds to me as if no external hot-to-balun jumper is requires,
especially as the OP reports that it tunes a balanced antenna just fine
without one.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

313. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 03:21:14 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <q0r4a111g2ajsmp55mjcultpupht5q9gf1@4ax.com>
Source record: 75778

On Sat, 04 Jun 2005 21:49:25 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Bob Miller wrote:
>> "Connect any antenna with single wire feed to connection marked Random
>> Wire. Connect balanced line to connection marked Balanced Line with
>> Jumper as indicated on back panel." (and there's a painted line
>> between the Balanced Line connectors.)
>>
>> If it's helpful, there are pictures, inside & out, of the Murch tuner at
>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=48711&item=5757714402
>
>I suspect the jumper wire needs to go between the random wire
>terminal and one of the balanced line terminals. That's the
>way it is on my MFJ. On the inside, do the balanced line
>terminals go anywhere besides the balun?

One Balanced Line terminal goes to a balun winding wire. The second
Balanced Line terminal goes to another balun winding wire; the second
terminal also has a wire going to the Antenna Selector Switch, which
selects the balanced antenna. The Random Wire terminal has a wire
going to the same Antenna Selector Switch, which also selects the
random wire antenna.

Those are the only wires on these three terminals.

bob
k5qwg

314. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 03:25:56 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <11s4a19acjahlhjejcadi8pidp2d1fkarl@4ax.com>
Source record: 75780

On Sun, 05 Jun 2005 03:21:08 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>>> "Connect any antenna with single wire feed to connection marked Random
>>> Wire. Connect balanced line to connection marked Balanced Line with
>>> Jumper as indicated on back panel." (and there's a painted line
>>> between the Balanced Line connectors.)
>>>
>>> If it's helpful, there are pictures, inside & out, of the Murch tuner at
>>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=48711&item=5757714402
>>
>>I suspect the jumper wire needs to go between the random wire
>>terminal and one of the balanced line terminals. That's the
>>way it is on my MFJ. On the inside, do the balanced line
>>terminals go anywhere besides the balun?
>
>According to one note I saw on the net, many of the Ultimate
>Transmatch designs had an internal strap/jumper to connect the
>unbalanced tuner circuitry to the balun, when necessary.
>
>I rather strongly suspect that this is the case for the Murch. The
>photos show that it has internal switching of the tuner output. The
>switch has five positions - 1 2 3 (which I assume correspond
>to the three unbalanced jacks) and two I can't really read clearly in
>the photo - perhaps the random-wire output, and the balun for the
>balanced output?

That's right, the 5-position Antenna switch selects coax 1, 2 and 3,
and R for Random Wire, and BL for balanced line.

bob
k5qwg

>
>Sounds to me as if no external hot-to-balun jumper is requires,
>especially as the OP reports that it tunes a balanced antenna just fine
>without one.

315. TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 03:45:19 UTC
From: puns <puns@verizon.net>
Message-ID: <jzuoe.940$KQ2.679@trnddc08>
Source record: 75781

Are those small 300/75 ohm tv baluns. voltage or current type?

316. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 05:11:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <LPvoe.261$RS6.32587890@news.sisna.com>
Source record: 75782
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

We didn't steal it, they were keeping it for the Indians, but as time
went by--in got incorporated into mexico--we liberated it... then found
out it was too good for the indians to have... so took it for
ourselves... geesh, get it right! <tongue-in-cheek>

Warmest regards,
John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-5D8F7E.20004704062005@news.newsguy.com...
> In article <42a2481a$1_1@spool9-west.superfeed.net>,
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>> I've always wanted to go back in time and take a few
>> Gatling guns back to the Alamo - and maybe a few cases
>> of hand grenades.
>
>
> You do realize that Texas was part of Mexico before we stole it?
>
> Tony

317. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 05:14:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <9Tvoe.262$VS6.32592040@news.sisna.com>
Source record: 75783
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony:

Good example of what I am trying to explain right now, is over in
Iraq... those are the Iraqi peoples oil wells we are/have liberated...
however, once again, I think we are finding the parties are NOT
deserving of the property liberated--I am beginning to fear, once again,
we may have to keep 'em... <evil grin>

Warmest regards,
John
"John Smith" <assemblywizard@gmail.com> wrote in message
news:LPvoe.261$RS6.32587890@news.sisna.com...
> We didn't steal it, they were keeping it for the Indians, but as time
> went by--in got incorporated into mexico--we liberated it... then
> found out it was too good for the indians to have... so took it for
> ourselves... geesh, get it right! <tongue-in-cheek>
>
> Warmest regards,
> John
>
> "Tony Elka" <shadowlane@shadowlane.com> wrote in message
> news:shadowlane-5D8F7E.20004704062005@news.newsguy.com...
>> In article <42a2481a$1_1@spool9-west.superfeed.net>,
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>
>>> I've always wanted to go back in time and take a few
>>> Gatling guns back to the Alamo - and maybe a few cases
>>> of hand grenades.
>>
>>
>> You do realize that Texas was part of Mexico before we stole it?
>>
>> Tony
>
>

318. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 05:15:01 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ePvoe.53457$8S5.42022@bignews3.bellsouth.net>
Source record: 75784

I've taken a couple of those apart -
those were voltage baluns - transformers
I've used them for transmitting low power on 10 meters
(so I could use 300 ohm cable for the antenna run)

"puns" <puns@verizon.net> wrote in message
news:jzuoe.940$KQ2.679@trnddc08...
> Are those small 300/75 ohm tv baluns. voltage or current type?
>
>

319. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 05:28:11 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <M3woe.264$jb7.32815201@news.sisna.com>
Source record: 75785

I never paid much attention, now that you mention it though, I seen one busted open once... this particular one had a binocular core...

Warmest regards,
John
"Hal Rosser" <hmrosser@bellsouth.net> wrote in message news:ePvoe.53457$8S5.42022@bignews3.bellsouth.net...
> I've taken a couple of those apart -
> those were voltage baluns - transformers
> I've used them for transmitting low power on 10 meters
> (so I could use 300 ohm cable for the antenna run)
>
>
> "puns" <puns@verizon.net> wrote in message
> news:jzuoe.940$KQ2.679@trnddc08...
>> Are those small 300/75 ohm tv baluns. voltage or current type?
>>
>>
>
>

320. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 05:51:23 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-0CCACD.22512304062005@news.newsguy.com>
Source record: 75786
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <9Tvoe.262$VS6.32592040@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> Tony:
>
> Good example of what I am trying to explain right now, is over in
> Iraq... those are the Iraqi peoples oil wells we are/have liberated...
> however, once again, I think we are finding the parties are NOT
> deserving of the property liberated--I am beginning to fear, once again,
> we may have to keep 'em... <evil grin>
>
> Warmest regards,
> John

That's not an evil grin, it's an expression one commonly sees on the
village idiot.

Tony

321. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 06:09:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vb55a1dmg22di61c1io7g5frlevnm85i0h@4ax.com>
Source record: 75787

On Sat, 4 Jun 2005 22:02:48 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I would disagree with your statement about SWR being absorbed in the source.
>The reflected wave is rereflected

Hi Fred,

I've seen this thesis offered before. I generally ask, since this is
exactly the same thesis offered for a conjugate match offered by a
tuner, and a tuner is used for this very purpose (rereflecting the
mismatch), if the Transmitter already does it - What is the Tuner for?

Why do you use a tuner? What is a match? Why would anyone seek to
match a Transmitter to its load?

73's
Richard Clark, KB7QHC

322. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 07:32:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7u9qa$d8s$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75788

> I am at a loss to read these statements as Art criticism, Pedagogy,
> Historical Romance, or what?
>
> 73's
> Richard Clark, KB7QHC

==========

Richard, I'm afraid I don't understand you. And I doubt if anybody else does either.

For some inexplicable reason you have reverted back to Shakesperian poetry.

Come back to plain American English. Try the other English (or Irish) playright and iconoclast, George Bernard Shaw.

And I hope you don't object if I begin some of my sentences with 'And'.

Reg, G4FGQ

323. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 08:37:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7udl6$1d0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75789

```
> >A knot in an antenna wire will have absolutely no electrical effect
> >below about 200 MHz.
> >
> >But it will mechanically weaken the wire. During the next hurricane
or
> >loading with ice it will be more likely to break.
> >----
> >Reg, G4FGQ
> >
>
Buck says politely -
>
> Your answer is surely correct, but not as interesting as the other
> threads.
>
================================

Buck, may I suggest replacing "interesting" with "useless".
----
Reg, G4FGQ
```

324. Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 11:07:21 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1117969640.983159.165770@z14g2000cwz.googlegroups.com>
Source record: 75790

Hello All,
should the antenna ground be connected to the transmitter circuit
ground? i saw a microstrip antenna that has only a feed pad but no
ground pad .
Regards

325. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 11:23:34 UTC
From: Russ Renaud <va3rr@yahoo.ca>
Message-ID: <Q76dnfUQofQvfT_fRVn-vg@teksavvy.com>
Source record: 75791
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

DaveC wrote:
> On Sat, 4 Jun 2005 06:15:39 -0700, Russ Renaud wrote
> (in article <-4adna7GUdPlNDzfRVn-jg@teksavvy.com>):
>
>
>>W1GHZ has an application that will determine the focus of your dish for you.
>
>
> I know the focus of the dish. Just need to know the point used as the feed
> point.
>
>
>>Now you just have to figure out where the phase centre of your feed is...
>
>
> It sounds like it is the entrance to the throat of the (original) guide where
> the guide connects to the horn. According to this, you can lengthen or
> shorten the guide at that point to change the "depth of radiation" (whether
> the feed illuminates a small or large diameter of the dish), according to:
>
> http://tinyurl.com/ar9es
>
I guess I wasn't able to divine your intent, then.

You say you have a surplus DirecTV "feed". You say you know the focal
point of your dish. You want to use your own 2.4 GHz feed. You
make mention of an adjustable feed - is it a chapparel-type feed because
I didn't think the DirecTV feeds are adjustable?

What kind of horn are you planning to use for 2.4 GHz? DirecTV dishes
are usually fairly small - the more efficient feedhorns are fairly
large, at least for 2.4 GHz if you have a .7 f/D DirecTV dish.

The simple answer is to place the phase center of your 2.4 GHz feed at
the focal point of your dish. What is the phase center of your 2.4 GHz
feed? Maybe this is the question you want to ask. If so, the answer is
probably here.

http://www.qsl.net/n1bwt/contents.htm

326. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 12:12:23 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <S_ednbAzDZ1Hdj_fRVn-hw@comcast.com>
Source record: 75792
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-5D8F7E.20004704062005@news.newsguy.com...
> In article <42a2481a$1_1@spool9-west.superfeed.net>,
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>> I've always wanted to go back in time and take a few
>> Gatling guns back to the Alamo - and maybe a few cases
>> of hand grenades.
>
>
> You do realize that Texas was part of Mexico before we stole it?
>
> Tony

Texas separated from Mexico and was an independent country before it ever
bcame part of the US.

327. Re: Biggest antenna ever constructed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 13:32:21 UTC
From: zzbunker <jimhunter1@comcast.com>
Message-ID: <prydnbXQ3fJtYz_fRVn-iA@comcast.com>
Source record: 75793
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

"Arved Sandstrom" <asandstrom@accesswave.ca> wrote in message
news:lubke.13374$tt5.5414@edtnps90...
> "Betty Boop" <betty_ready_boop@yahoo.com> wrote in message
> news:1116804256.317468.307560@o13g2000cwo.googlegroups.com...
> >
> [SNIP]
> > The result, the scientists hope, will be a fusing of atoms so that more
> > energy is released than is generated by the laser beams, something
> > scientists call fusion ignition. It is what happens when a hydrogen
> > bomb explodes.
>
> It's also what has happened with several girlfriends. No laser beams
> required even, so if you figure that it may have taken only a few
thousands
> or tens of thousands of dollars to make _them_ nuclear weapons, I am
> surprised that the authorities haven't contacted me.
>
> I would however prefer to be referred to as the SIFPP - "Semi-Intelligent
> Fusion Production Platform." The major failure of SIFPP has been budgetary
> constraints...I only make so much money, so the production of an AFDD
> ("Autonomous Female Destruction Device") has tested my wallet to its
limits.
>
> > Four of the beams have been tested. When completed in 2008, the
> > National Ignition Facility, or NIF, as the laser at the Lawrence
> > Livermore National Laboratories is called, will dwarf many times over
> > any laser to date.

Since the only thing Livermore ever invented in entire existence was
the
Natioinal Debt, they had to call it the National Ignition Laboratory,
rather than National Axe Laboratory, since that always
confuse the grunt army with China Lake and
The Pentagon's San Franciso Air Force.

328. Re: Biggest antenna ever constructed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 13:33:57 UTC
From: zzbunker <jimhunter1@comcast.com>
Message-ID: <2Imdncc5bMbNYj_fRVn-hQ@comcast.com>
Source record: 75794
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

"Arved Sandstrom" <asandstrom@accesswave.ca> wrote in message
news:lubke.13374$tt5.5414@edtnps90...
> "Betty Boop" <betty_ready_boop@yahoo.com> wrote in message
> news:1116804256.317468.307560@o13g2000cwo.googlegroups.com...
> >
> [SNIP]
> > The result, the scientists hope, will be a fusing of atoms so that more
> > energy is released than is generated by the laser beams, something
> > scientists call fusion ignition. It is what happens when a hydrogen
> > bomb explodes.
>
> It's also what has happened with several girlfriends. No laser beams
> required even, so if you figure that it may have taken only a few
thousands
> or tens of thousands of dollars to make _them_ nuclear weapons, I am
> surprised that the authorities haven't contacted me.
>
> I would however prefer to be referred to as the SIFPP - "Semi-Intelligent
> Fusion Production Platform." The major failure of SIFPP has been budgetary
> constraints...I only make so much money, so the production of an AFDD
> ("Autonomous Female Destruction Device") has tested my wallet to its
limits.
>
> > Four of the beams have been tested. When completed in 2008, the
> > National Ignition Facility, or NIF, as the laser at the Lawrence
> > Livermore National Laboratories is called, will dwarf many times over
> > any laser to date.
> [SNIP]
>
> Jesus, I could hope for a better name than "National Ignition Facility."
> I'll admit that it's better than GCTC (Global Conflagration Testing
Centre)
> or HUCTZ (Hyper Universe Collapse Test Zone) [*]. I just am aware that
being
> in Nova Scotia, if the USA ignites, so may the closest parts of Canada,
and
> I am in one of those parts. I am not keen to move to the SDB ("Sandstrom
> Deep Bunker") in Labrador.

Since the only thing Livermore ever invented in their entire existence
was the
Natioinal Debt, they had to call it the National Ignition Facility,
rather than the National Axe Laboratory, since that always

confuse the grunt army with China Lake and
The Pentagon's San Franciso Air Force.

>
> AHS
>
> * The projects exist, but are so black as to be ebony. But be afraid - be
> very afraid.
>
>

329. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 13:36:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a300d1$1_2@spool9-west.superfeed.net>
Source record: 75795
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony Elka wrote:
> You do realize that Texas was part of Mexico before we stole it?

Texas was actually stolen four or five times and one
time Mexico was the thief when they stole Texas from
Spain. Texas was originally stolen by the Europeans
from the Indians who thought owning land was a ridiculous
concept.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

330. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 13:37:57 UTC
From: Buck <iam@this.site>
Message-ID: <l006a1t0m1398855ghdr9nmgaht6i6kako@4ax.com>
Source record: 75796

On Sun, 5 Jun 2005 08:37:58 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>> >A knot in an antenna wire will have absolutely no electrical effect
>> >below about 200 MHz.
>> >
>> >But it will mechanically weaken the wire. During the next hurricane
>or
>> >loading with ice it will be more likely to break.
>> >----
>> >Reg, G4FGQ
>> >
>>
>Buck says politely -
>>
>> Your answer is surely correct, but not as interesting as the other
>> threads.
>>
>==============================
>
>Buck, may I suggest replacing "interesting" with "useless".
>----
>Reg, G4FGQ
>
That too, is true

--
73 for now
Buck
N4PGW

331. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 13:42:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a30240$1_1@spool9-west.superfeed.net>
Source record: 75797

Bob Miller wrote:
> One Balanced Line terminal goes to a balun winding wire. The second
> Balanced Line terminal goes to another balun winding wire; the second
> terminal also has a wire going to the Antenna Selector Switch, which
> selects the balanced antenna.

That's different from the MFJ which has wires from the balanced
output terminals going only to the balun.

> The Random Wire terminal has a wire
> going to the same Antenna Selector Switch, which also selects the
> random wire antenna.

MFJ saved money on the switch by combining the balanced and
random wire functions. Sounds like your tuner has separate
switch settings for balanced and random wire. So I don't
know what that jumper statement is all about.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

332. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 13:54:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b2e47$42a30410$438df3df$19059@ALLTEL.NET>
Source record: 75798

Cecil, for every question, there are any number of answers if you refashion the question. In this case the SWR was defined as !.7:1

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42a26dff$1_1@spool9-west.superfeed.net...
> Fred W4JLE wrote:
> > I would disagree with your statement about SWR being absorbed in the source.
> > The reflected wave is rereflected and aside from losses caused by the 2 way
> > trip is reradiated.
>
> Reflected current flowing into the final amp can superpose in
> phase with the forward current and, without protection circuitry,
> cause the final amp to exceed its dissipation rating.
>
> Another possibility is when the reflected voltage superposes
> in phase with the forward voltage, and without protection
> circuitry, exceeds the voltage rating of the final.
>
> If all reflected power was always re-reflected, there would
> be no need for protection circuitry. The generated power is
> *defined* as the forward power minus the reflected power. That
> does NOT mean that the reflected power is 100% re-reflected.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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333. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 14:02:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <dc646$42a305ed$438df3df$19473@ALLTEL.NET>
Source record: 75799

You have created an all encompassing case from the original SWR of 1.7:1 No tuner needed. Under these conditions, the amount of reflected energy radiated approaches Ivory Soap.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:vb55a1dmg22di61c1io7g5frlevnm85i0h@4ax.com...
> On Sat, 4 Jun 2005 22:02:48 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >I would disagree with your statement about SWR being absorbed in the source.
> >The reflected wave is rereflected
>
> Hi Fred,
>
> I've seen this thesis offered before. I generally ask, since this is
> exactly the same thesis offered for a conjugate match offered by a
> tuner, and a tuner is used for this very purpose (rereflecting the
> mismatch), if the Transmitter already does it - What is the Tuner for?
>
> Why do you use a tuner? What is a match? Why would anyone seek to
> match a Transmitter to its load?
>
> 73's
> Richard Clark, KB7QHC

334. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 14:46:42 UTC
From: Russ Renaud <va3rr@yahoo.ca>
Message-ID: <cvWdnWHFbr_MjT7fRVn-sQ@teksavvy.com>
Source record: 75804
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

DaveC wrote:
> On Sun, 5 Jun 2005 04:23:34 -0700, Russ Renaud wrote
> (in article <Q76dnfUQofQvfT_fRVn-vg@teksavvy.com>):
> No, I'm talking about replacing the feed with my own feed. "Adjustable" means
> that depending on how much of the dish I want to illuminate, I can change the
> length of the feed's waveguide to extend beyond the feed point as described
> here:
>
> http://tinyurl.com/ar9es
>
>
>>What kind of horn are you planning to use for 2.4 GHz? DirecTV dishes
>>are usually fairly small - the more efficient feedhorns are fairly
>>large, at least for 2.4 GHz if you have a .7 f/D DirecTV dish.
>
>
> I haven't decided, yet. Options are cantenna-type feed, or patch panel-type.
>
>
>>The simple answer is to place the phase center of your 2.4 GHz feed at
>>the focal point of your dish. What is the phase center of your 2.4 GHz
>>feed? Maybe this is the question you want to ask. If so, the answer is
>>probably here.
>
>
> Well, this I think I know. I'm just trying to determine what the feed point
> is for the *existing* feed. That gives me a point on the hardware to attempt
> to duplicate with the new feed. This is different and easier than aiming for
> a point in space (the dish's feed point).
>
>
>>http://www.qsl.net/n1bwt/contents.htm
>
>
> Yes, a great resource. I discovered this last month. While it is my "bible"
> for designing this project, it doesn't contain the answer to this question.

OK. I think I understand. Assuming you are using the DirecTv dish, and
you want to replace the DTV horn with your own horn or dish feed, the
'phase center' of the DTV horn is about .25 lambda from the mouth of the
horn.

So, you place the phase center of your replacement feed at the same
point as the DTV horn's phase center.

Again, assuming you are using the DirecTv dish, neither the cantenna nor a patch antenna will provide ideal illumination for a DTV offset dish, which has an f/D of around .7

If you are OK with linear polarization (is the antenna for WiFi use?), I suspect a biquad would provide better illumination than a cantenna or a patch. Not that the latter two wouldn't work, it's just they aren't optimum for that f/D

Russ

335. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 14:50:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4cec6$42a3112e$438df3df$24965@ALLTEL.NET>
Source record: 75805

The line he is refering to simply indicates which of the three terminals to
connect a balanced line to. It has nothing to do with a jumper.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a30240$1_1@spool9-west.superfeed.net...
> Bob Miller wrote:
> > One Balanced Line terminal goes to a balun winding wire. The second
> > Balanced Line terminal goes to another balun winding wire; the second
> > terminal also has a wire going to the Antenna Selector Switch, which
> > selects the balanced antenna.
>
> That's different from the MFJ which has wires from the balanced
> output terminals going only to the balun.
>
> > The Random Wire terminal has a wire
> > going to the same Antenna Selector Switch, which also selects the
> > random wire antenna.
>
> MFJ saved money on the switch by combining the balanced and
> random wire functions. Sounds like your tuner has separate
> switch settings for balanced and random wire. So I don't
> know what that jumper statement is all about.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
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336. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 15:08:07 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <rzEoe.60$Z44.36@newssvr13.news.prodigy.com>
Source record: 75806

Reg Edwards wrote:
>>I am at a loss to read these statements as Art criticism, Pedagogy,
>>Historical Romance, or what?
>>
>>73's
>>Richard Clark, KB7QHC
>
>
> ================================
>
> Richard, I'm afraid I don't understand you. And I doubt if anybody
> else does either.
>
> For some inexplicable reason you have reverted back to Shakesperian
> poetry.
>
> Come back to plain American English. Try the other English (or Irish)
> playright and iconoclast, George Bernard Shaw.
>
> And I hope you don't object if I begin some of my sentences with
> 'And'.
> ----
> Reg, G4FGQ
>
>

And why would you want to do that, Reg? I thought that only people
of my cultural persuasion began their sentences with 'And'.
G.B. Shaw had his moments. He once wrote, "If you do not say
a thing in an irritating way, you may as well not say it at all,
since nobody will trouble themselves about anything that does not
trouble them."
73,
Tom Donaly, KA6RUH

337. Re: antenna tuner balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 15:21:11 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ov56a1p0e8c2ldrijj3oqaomb5attei712@4ax.com>
Source record: 75807

On Sun, 5 Jun 2005 10:50:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>The line he is refering to simply indicates which of the three terminals to
>connect a balanced line to. It has nothing to do with a jumper.

Thank you, that's what I finally have figured out -- Murch made
several versions of their tuner; perhaps my copy of the instruction
manual refers to some other version, or maybe they just weren't clear
in what they were trying to say.

Thanks to all...

bob
k5qwg

338. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 15:55:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <RfFoe.14$E16.1980477@news.sisna.com>
Source record: 75808

Reg:

I think you quite correct--we should not be thinking "knotty thoughts"
anyway... <grin>

Warmest regards,
John
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d7udl6$1d0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
>> >A knot in an antenna wire will have absolutely no electrical effect
>> >below about 200 MHz.
>> >
>> >But it will mechanically weaken the wire. During the next hurricane
> or
>> >loading with ice it will be more likely to break.
>> >----
>> >Reg, G4FGQ
>> >
>>
> Buck says politely -
>>
>> Your answer is surely correct, but not as interesting as the other
>> threads.
>>
> ================================
>
> Buck, may I suggest replacing "interesting" with "useless".
> ----
> Reg, G4FGQ
>
>

339. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:03:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <QnFoe.15$1M1.1080433@news.sisna.com>
Source record: 75809

And, there is much truth there Tom... those thoughts are right on!

Warmest regards,
John

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:rzEoe.60$Z44.36@newssvr13.news.prodigy.com...
> Reg Edwards wrote:
>>>I am at a loss to read these statements as Art criticism, Pedagogy,
>>>Historical Romance, or what?
>>>
>>>73's
>>>Richard Clark, KB7QHC
>>
>>
>> ================================
>>
>> Richard, I'm afraid I don't understand you. And I doubt if anybody
>> else does either.
>>
>> For some inexplicable reason you have reverted back to Shakesperian
>> poetry.
>>
>> Come back to plain American English. Try the other English (or Irish)
>> playright and iconoclast, George Bernard Shaw.
>>
>> And I hope you don't object if I begin some of my sentences with
>> 'And'.
>> ----
>> Reg, G4FGQ
>>
>>
>
> And why would you want to do that, Reg? I thought that only people
> of my cultural persuasion began their sentences with 'And'.
> G.B. Shaw had his moments. He once wrote, "If you do not say
> a thing in an irritating way, you may as well not say it at all,
> since nobody will trouble themselves about anything that does not
> trouble them."
> 73,
> Tom Donaly, KA6RUH

340. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:18:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <eBFoe.16$cd6.2029686@news.sisna.com>
Source record: 75810
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

My goodness, that statement surely raises my expectations... I shall keep a keen ear tuned upon your words of wisdom, I have not expected this much since I was a child awaking on Xmas morning to gifts of wonder and delight... I sure hope you can stand up to what you boast... will stand awaiting your dissertations of enlightenment...

Warmest regards,
John
"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-0CCACD.22512304062005@news.newsguy.com...
> In article <9Tvoe.262$VS6.32592040@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> Tony:
>>
>> Good example of what I am trying to explain right now, is over in
>> Iraq... those are the Iraqi peoples oil wells we are/have
>> liberated...
>> however, once again, I think we are finding the parties are NOT
>> deserving of the property liberated--I am beginning to fear, once
>> again,
>> we may have to keep 'em... <evil grin>
>>
>> Warmest regards,
>> John
>
>
>
> That's not an evil grin, it's an expression one commonly sees on the
> village idiot.
>
> Tony

341. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:18:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t696a19dfh1617b63gpb83t0d9sjbcm2j9@4ax.com>
Source record: 75811

On Sun, 5 Jun 2005 10:02:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>You have created an all encompassing case from the original SWR of 1.7:1

Thanx Fred,

No one has ever been able to answer when the Transmitter rereflects
energy, why they need a tuner.

73's
Richard Clark, KB7QHC

342. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:26:37 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a631trt653e8b@corp.supernews.com>
Source record: 75800

Roy
Worst case.
Get it?
H.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11a4m32i6l2u140@corp.supernews.com...
> H. Adam Stevens, NQ5H wrote:
> >
> > Just a quick back-of-the-envelope calculation.
> >
> > SWR' = 1.7
> >
> > or SWR" = 1.0
> >
> > Let's assume worst case; all the reflected power is absorbed in the
source.
> > This is not necesssarily the case, but gives us the least signal
strength in
> > the high SWR case, SWR'.
> >
> > So then, comparing the two cases, the change in power to the load in db
is
> > 10*log(SWR'/SWR").
> >
> > SWR'/SWR" = 1.7
> >
> > 2.3 db, barely detectable, worst case.
> >
> > So it's a question of how much reflected power can the rig tolerate as
well.
>
> That calculation completely baffles me.
>
> The ALC in my Icom rig keeps the forward power constant up to the point
> where it reduces power, at around 3:1 SWR. This is typical for
> commercial rigs. The rig delivers 100 watts to a 1:1 SWR load.
> (Techically, this really means a load which, if terminating a 50 ohm
> line, will produce 1:1 SWR on that line.) 1.7:1 SWR is a reverse/forward
> power ratio of 0.067. The ALC keeps the forward power at 100 watts, so
> with 1.7:1 SWR, the reverse power is 6.7 watts. The net power delivered
> to the load is 100 - 6.7 = 93.3 watts, or 0.3 dB, not 2.3 dB, less than
> the power delivered to a 1:1 load.
>

> Oh, and the "reverse power" isn't "absorbed in the source". Anyone
> interested in learning more about this might take a look at "Food for
> thought - Forward and Reverse Power.txt" at
> http://eznec.com/misc/food_for_thought/.
>
> Roy Lewallen, W7EL

343. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:27:50 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a6346d1soo2c1@corp.supernews.com>
Source record: 75801

Like I said to Roy.
"Worst case."
Get it?
OF COURSE it isn't absorbed in the source.
H.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:8fe33$42a25d4c$438df3df$31487@ALLTEL.NET...
> I would disagree with your statement about SWR being absorbed in the
source.
> The reflected wave is rereflected and aside from losses caused by the 2
way
> trip is reradiated.
>
> While your math is correct, your application in my opinion is incorrect.
>
>
> "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
> news:11a40si7916gaf@corp.supernews.com...
> >
> > "Bill Turner" <noway@nohow.com> wrote in message
> > news:8fq3a1pb65agelpn97udc9pdv55lnguvh1@4ax.com...
> > > On Fri, 3 Jun 2005 15:53:31 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
> > >
> > > >First, I would say that 1.7 to 1 is fine, leave it alone. It is what
is
> > > >expected.
> > >
> > > ____
> > >
> > > Fred is correct and you can prove it to your own satisfaction if you
> > > like:
> > >
> > > Place a field strength meter nearby, close enough so you can read the
> > > meter, and sweep your transmitter across the band. You will find your
> > > power output is remarkably constant whether the SWR is 1:1 or 1.7:1.
> > >
> > > There will be some variation of course, but when you find the
bandwidth
> > > where it drops no more than about 90% or so, you can operate
confidently
> > > anywhere in that region without worrying about SWR.
> > >

> > > Works for me.
> > >
> > > --
> > > Bill, W6WRT
> >
> > Just a quick back-of-the-envelope calculation.
> >
> > SWR' = 1.7
> >
> > or SWR" = 1.0
> >
> > Let's assume worst case; all the reflected power is absorbed in the
> source.
> > This is not necesssarily the case, but gives us the least signal
strength
> in
> > the high SWR case, SWR'.
> >
> > So then, comparing the two cases, the change in power to the load in db
is
> > 10*log(SWR'/SWR").
> >
> > SWR'/SWR" = 1.7
> >
> > 2.3 db, barely detectable, worst case.
> >
> > So it's a question of how much reflected power can the rig tolerate as
> well.
> >
> > 73
> > H.
> > NQ5H
> >
> >
> >
>
>

344. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:30:14 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a638mp6gllh2e@corp.supernews.com>
Source record: 75803

One more time.
It was a WORST CASE calculation which placed an upper bound on the possible
loss
from operating into a 1.7:1 SWR as opposed to a 1:1 SWR.
In practice most of the power is eventually radiated.
sheesh!
H.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a26dff$1_1@spool9-west.superfeed.net...
> Fred W4JLE wrote:
> > I would disagree with your statement about SWR being absorbed in the
source.
> > The reflected wave is rereflected and aside from losses caused by the 2
way
> > trip is reradiated.
>
> Reflected current flowing into the final amp can superpose in
> phase with the forward current and, without protection circuitry,
> cause the final amp to exceed its dissipation rating.
>
> Another possibility is when the reflected voltage superposes
> in phase with the forward voltage, and without protection
> circuitry, exceeds the voltage rating of the final.
>
> If all reflected power was always re-reflected, there would
> be no need for protection circuitry. The generated power is
> *defined* as the forward power minus the reflected power. That
> does NOT mean that the reflected power is 100% re-reflected.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
=----

345. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:31:18 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a63alk3005s64@corp.supernews.com>
Source record: 75802

Ivory Soap. Excellent!
73
H.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:dc646$42a305ed$438df3df$19473@ALLTEL.NET...
> You have created an all encompassing case from the original SWR of 1.7:1
No
> tuner needed. Under these conditions, the amount of reflected energy
> radiated approaches Ivory Soap.
>
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:vb55a1dmg22di61c1io7g5frlevnm85i0h@4ax.com...
> > On Sat, 4 Jun 2005 22:02:48 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> > wrote:
> >
> > >I would disagree with your statement about SWR being absorbed in the
> source.
> > >The reflected wave is rereflected
> >
> > Hi Fred,
> >
> > I've seen this thesis offered before. I generally ask, since this is
> > exactly the same thesis offered for a conjugate match offered by a
> > tuner, and a tuner is used for this very purpose (rereflecting the
> > mismatch), if the Transmitter already does it - What is the Tuner for?
> >
> > Why do you use a tuner? What is a match? Why would anyone seek to
> > match a Transmitter to its load?
> >
> > 73's
> > Richard Clark, KB7QHC
>
>

346. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:33:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lm96a19qcclk3k62hm8qhen47ig85e2jjg@4ax.com>
Source record: 75812

On Sun, 5 Jun 2005 07:32:26 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Richard, I'm afraid I don't understand you. And I doubt if anybody
>else does either.

Hi Reg,

That's OK, we understand each and every chunk of offering you toss to
the dog pack. Some is like horse meat, some like fish. If we tried
to put it back together we get a chimera. Sorry for that long word,
but enough readers already understand.

>And I hope you don't object if I begin some of my sentences with
>'And'.

I'm surprised you are really interested in grammar at all! No
objection, more work is necessary, but you do show initiative. ;-)

73's
Richard Clark, KB7QHC

347. 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 16:57:03 UTC
From: GeorgeF <av8tor@licensed4funREMOVEBEFOREFLIGHT.com>
Message-ID: <z9Goe.14172$M36.12285@newsread1.news.atl.earthlink.net>
Source record: 75813

I put up an 80 meter full wave loop using about 280ï¿½ of #14 wire in almost a square. Each end of the loop was soldered to an SO-239 connector. Iï¿½m feeding the loop via RG-8 coax, about a 30ï¿½ run.

Using an MFJ Antenna Analyzer I canï¿½t find a nice low SWR point. The lowest I can find is at 2.5 MHz, the SWR at that point is still high at 3.4:1. In the 80 mtr band its 8:1 and in the 40 mtr band its 7:1.

My installation is far from ideal. First, the antenna for about ï¿½ the loop is at about 20ï¿½ high and the second half is about 15ï¿½ high. Next, in the center of the loop is the metal frame work for a screen-room over the swimming pool (50ï¿½ x 30ï¿½) which Iï¿½m sure interacts with the loop antenna to some degree. The screening is not metal however the frame work is.

Of course I can use my MFJ-949 tuner to get a low SWR on any band but by doing so am I loosing efficiency? I also notice that trying to tune the loop the tuner seems to be very touchy! I have noticed on 20 meters the loop received on average about 2 S-Units better than my 20 meter dipole. On 40 meters it receives almost 1 S-unit better than a 160ï¿½ randomwire. On 80 meters just slightly better than a 160ï¿½ randomwire. (all antennas Iï¿½m comparing are all at about 20ï¿½ high).

I would have started making the loop shorter to bring up the resonate frequency to 80 meters however Iï¿½m concerned as to why the lowest SWR I can find anywhere on the HF band is still over 3:1. Is it because the loop low to the ground (20ï¿½)? Or do I need a balum? 1:1 balum? 4:1 balum? Looking for any suggestions.

TNX
George ï¿½ KI4FIA
http://www.MilAirComms.com

348. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 17:30:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8FGoe.25$az.2645116@news.sisna.com>
Source record: 75814

For completeness, I include this translation of the gamma code to C...
nothing fancy, just for personal use--it contains both computations for
monopole and dipole... as the original basic code implemented it (very
similar)...
http://blake.prohosting.com/mailguy2/gamma_cpp.txt

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pqIme.49$mj3.2131001@news.sisna.com...
> To all:
>
> Since we seem to be picking up a pascal programmer or two-I might as
> well toss this out and see if anyone is interested:
>
> R. Nelson-WB0IKN, apparently, contributed/wrote an article back in
> January 1985 issue of "Ham Radio."
> Anyway, I ended up with some source code of his to compute a gamma
> match for a monopole/dipole-it is written in basic, and runs in
> "GWBasic" (you can get a copy of GWBasic off the net if you wish to
> run his original source-or use a method of your own.) I have the
> source at:
> http://blake.prohosting.com/mailguy2/gammabasic.txt
>
> I did a bit of work in translating his source to pascal, and it is in
> two files there:
> http://blake.prohosting.com/mailguy2/gg.txt {a pascal .tpu unit to
> be used by the main program }
>
> and:
> http://blake.prohosting.com/mailguy2/gamma.txt {the main program}
>
> . this source is mainly a debugging shell to get his
> formulas/calculations converted to pascal's method of handling math.
> . the source compiles and runs. and seems to end up with the same
> values as his source. the code is FAR from finished and is a starting
> point. but can be used quite effectively to test the concept.
>
> . there is an error if "driven element diameter = gamma rod diameter =
> gamma rod spacing".. It is a divde by zero error. since a square root
> of a variable is attempted and of course NOT allow and generates the
> error. his original code does NOT suffer this error-because of a
> "buggy error" in gwbasic-it allows the square root of zero,
> apparently!!!! (he started working with imaginary numbers it seems!)

>
> . anyway, those interested can take a look at the source and see if it
> is of any interest to them-be great if someone would get it into good
> working shape and have Reg put it up to share with all interested.. I
> just have about a dozen other things on my plate right now and can't
> get to it immediately-and would rather translate to "C" anyway.
>
> . it would be interesting if anyone has any good info on design of
> gamma matches and could share that with me-I'd like to study the
> formulas and hear descriptions of the calculations-as here I have only
> translated them-if anyone has such, please let me know. R. Nelson, or
> course, should be given credit for having provoked these manipulations
> of his original code.
>
> . my debug code only considers the monopole, the dipole option would
> need to be added, but is a simple calculation or two which can be seen
> in his original basic code.
>
> . if I can help with any others efforts, in any way, just let me know.
>
> Warmest regards,
> John
>
> "Gary" <grynwbry@@@@Yahoo.com> wrote in message
> news:1hrl91lh6f251i79ua487cq9ejjqntiqoc@4ax.com...
>> Thanks for all the helpful programs Reg. I'm just curious what
>> programming language you are using to create the DOS programs ? I've
>> programmed in basic years ago and also Pascal and assembler. I'd like
>> to do some programming for some simple projects of my own but don't
>> need or want anything like a 400 page book(s) for Visual C++ etc.
>>
>> Thanks in Advance.
>>
>> 73 Gary K8IQ
>
>

349. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 17:49:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c7c6a15kl6j7gdtejjoqvlk4ap91puchb2@4ax.com>
Source record: 75815

On Sun, 05 Jun 2005 16:57:03 GMT, GeorgeF
<av8tor@licensed4funREMOVEBEFOREFLIGHT.com> wrote:

>I put up an 80 meter full wave loop using about 280ï¿½ of #14 wire in
>almost a square.

Hi George,

That was certainly a good beginning, but questions abound as we
proceed.

>Each end of the loop

How many "ends" does a loop have? This is something akin to how many
sides to a circle.

>was soldered to an SO-239 connector.

One is enough, why two (or more, we still don't know how many ends
there are)?

This statement is enough to give pause. If there is more than one 239
inserted inline, it must of necessity break continuity of the loop.
This, then, means that you no longer have a loop, but rather a
fullwave dipole (presuming the loop has 2 ends).

> Iï¿½m feeding the loop via RG-8 coax, about a 30ï¿½ run.

You say nothing of choking the feedpoint, and given the symptoms that
you describe, this sounds like a major omission.

>In the 80 mtr band its 8:1 and in the 40 mtr band its 7:1.

Sounds like full wave dipoles (or even multiples). In other words,
consistent with previous descriptions.

>My installation is far from ideal.

No one here has it any better, but by degrees. If you can do better
by trying harder, fine, but if there's no way to get the antenna
higher, or to blow away the obstructions....

>Of course I can use my MFJ-949 tuner to get a low SWR on any band but by
>doing so am I loosing efficiency?

In trying to tune full wave dipoles? Could be, but being so close to
the dirt is probably lowering your antenna's wicked Z to something
easier to tune (your efficiency is already dominated by ground loss).

>I also notice that trying to tune the
>loop the tuner seems to be very touchy!

Lack of choking at the feed point - or - you are tuning an
anti-resonant antenna.

>I have noticed on 20 meters
>the loop received on average about 2 S-Units better than my 20 meter
>dipole. On 40 meters it receives almost 1 S-unit better than a 160ï¿½
>randomwire. On 80 meters just slightly better than a 160ï¿½ randomwire.
>(all antennas Iï¿½m comparing are all at about 20ï¿½ high).

Now all your previous complaints sound like whining. Do you want a
tuned antenna, or a gain antenna?

BOTH!?

73's
Richard Clark, KB7QHC

350. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 17:52:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d7ve5ihfj1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75816

> >>I am at a loss to read these statements as Art criticism,
Pedagogy,
> >>Historical Romance, or what?
> >>
> >>73's
> >>Richard Clark, KB7QHC
> >
> > ================================
> >
> > Richard, I'm afraid I don't understand you. And I doubt if anybody
> > else does either.
> >
> > For some inexplicable reason you have reverted back to
Shakesperian
> > poetry.
> >
> > Come back to plain American English. Try the other English (or
Irish)
> > playright and iconoclast, George Bernard Shaw.
> >
> > And I hope you don't object if I begin some of my sentences with
> > 'And'.
> > ----
> > Reg, G4FGQ
> >
==================================
>
> And why would you want to do that, Reg? I thought that only people
> of my cultural persuasion began their sentences with 'And'.
> G.B. Shaw had his moments. He once wrote, "If you do not say
> a thing in an irritating way, you may as well not say it at all,
> since nobody will trouble themselves about anything that does not
> trouble them."
> 73,
> Tom Donaly, KA6RUH
================================

Tom,

Your particular cultural persuasion really doesn't really enter the discussion. It could be North American Red Indian. It sounds OK by me. I imagine most spoken languages admit to the use of 'and' anywhere within the spoken sentence. It is only natural that occasionally it should appear at the beginning of the written sentence.

I mentioned it to my friend Richard Clark because of the possibility, of so doing, it may cause irritation and thereby draw his attention to what I was waffling about. There are some silly academic objections to the use of 'And' at the beginning of a written sentence.

I was unaware of G.B.Shaw's ideas on how to conduct an irritating conversation. Thank you very much for drawing my attention to his remarks.

It is also pleasing to learn that some US citizens are familiar with the works, not just the plays, of GBS. His works have been turned by Hollywood into film - such as Ingrid Bergman as "Saint Joan". But GBS was not happy with the script. The political content of his play was distorted beyond recognition. But that's just Hollywood's pro-american propaganda for you.

Reg, G4FGQ

351. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:04:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <R8Hoe.28$AH1.2897949@news.sisna.com>
Source record: 75818

Reg:

Actually, both you guys are right on, "and" yes--I have always
thoroughly enjoyed British theatre and writers... I think their American
counterparts have always played a game of "catch up." Today "special
effects", sex and "painted blondes" and "action" replace the sorely
missed good strong actors and artists...

Warmest regards,
John
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d7ve5ihfj1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> >>I am at a loss to read these statements as Art criticism,
> Pedagogy,
>> >>Historical Romance, or what?
>> >>
>> >>73's
>> >>Richard Clark, KB7QHC
>> >
>> > ==========
>> >
>> > Richard, I'm afraid I don't understand you. And I doubt if anybody
>> > else does either.
>> >
>> > For some inexplicable reason you have reverted back to
> Shakesperian
>> > poetry.
>> >
>> > Come back to plain American English. Try the other English (or
> Irish)
>> > playright and iconoclast, George Bernard Shaw.
>> >
>> > And I hope you don't object if I begin some of my sentences with
>> > 'And'.
>> > ----
>> > Reg, G4FGQ
>> >
> ==========
>>
>> And why would you want to do that, Reg? I thought that only people
>> of my cultural persuasion began their sentences with 'And'.
>> G.B. Shaw had his moments. He once wrote, "If you do not say
>> a thing in an irritating way, you may as well not say it at all,
>> since nobody will trouble themselves about anything that does not
>> trouble them."

>> 73,
>> Tom Donaly, KA6RUH
> ================================
>
> Tom,
>
> Your particular cultural persuasion really doesn't really enter the
> discussion. It could be North American Red Indian. It sounds OK by me.
> I imagine most spoken languages admit to the use of 'and' anywhere
> within the spoken sentence. It is only natural that occasionally it
> should appear at the beginning of the written sentence.
>
> I mentioned it to my friend Richard Clark because of the possibility,
> of so doing, it may cause irritation and thereby draw his attention to
> what I was waffling about. There are some silly academic objections to
> the use of 'And' at the beginning of a written sentence.
>
> I was unaware of G.B.Shaw's ideas on how to conduct an irritating
> conversation. Thank you very much for drawing my attention to his
> remarks.
>
> It is also pleasing to learn that some US citizens are familiar with
> the works, not just the plays, of GBS. His works have been turned by
> Hollywood into film - such as Ingrid Bergman as "Saint Joan". But
> GBS was not happy with the script. The political content of his play
> was distorted beyond recognition. But that's just Hollywood's
> pro-american propaganda for you.
> ----
> Reg, G4FGQ
>
>

352. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:08:14 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <icHoe.9607$U_2.1496@trnddc06>
Source record: 75817
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

"DaveC" <me@privacy.net> wrote in message
news:0001HW.BEC8844E0006D07FF04075B0@news.readfreenews.net...
> Thanks, Russ, for your observations.
>
>> If you are OK with linear polarization (is the antenna for WiFi use?),
>> I suspect a biquad would provide better illumination than a cantenna
>> or a patch. Not that the latter two wouldn't work, it's just they
>> aren't optimum for that f/D
>
> Yes, WiFi. If need be, can't I just rotate the biquad feed by 90 deg. and
> get
> horiz. polarization?
>
> Yeah, I see (via net search) that biquad fits nicely with a 0.7 f/D dish.
>
> Thanks again,
> --
> Please, no "Go Google this" replies. I wouldn't
> ask a question here if I hadn't done that already.
>
> DaveC
> me@privacy.net
> This is an invalid return address
> Please reply in the news group
>

Dave

Do you know of a web site where the offset dish f/D is defined? I am
familiar with the conventional (feed at the center) parabolic reflector f/D.
My question relates to my wondering if the TV satellite dish is a parabola
with the horn feed offset away from the focal point.

Jerry

353. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:26:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hng6a1hrca1hvuoj11hche2940ijhir4fb@4ax.com>
Source record: 75822

On Sun, 5 Jun 2005 17:52:50 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>GBS was not happy with the script. The political content of his play
>was distorted beyond recognition. But that's just Hollywood's
>pro-american propaganda for you.

Hi Reg,

They should've stayed with GBS' pro-British propaganda? Or rather his
anti-British propaganda? What you offer sounds like a plagiarized
play program note.

73's
Richard Clark, KB7QHC

354. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:27:39 UTC
From: mohawky@charter.net
Message-ID: <2vg6a158cuubundqih8ntvo7d40ijr7m61@4ax.com>
Source record: 75819
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sat, 04 Jun 2005 20:00:48 -0700, Tony Elka
<shadowlane@shadowlane.com> wrote:

>In article <42a2481a$1_1@spool9-west.superfeed.net>,
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>> I've always wanted to go back in time and take a few
>> Gatling guns back to the Alamo - and maybe a few cases
>> of hand grenades.
>
>
>You do realize that Texas was part of Mexico before we stole it?

You do realize that Texas was part of Native Americans indigenous land
before the Spanish stole it?

==========
Tracy Barber
----
adirondack-pc

"Freebie Stamp Project"
==========

355. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:28:30 UTC
From: mohawky@charter.net
Message-ID: <62h6a1p5hbpfbgkkoq081p7thmnlqi4sh8@4ax.com>
Source record: 75820
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sat, 4 Jun 2005 22:11:05 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>We didn't steal it, they were keeping it for the Indians, but as time
>went by--in got incorporated into mexico--we liberated it... then found
>out it was too good for the indians to have... so took it for
>ourselves... geesh, get it right! <tongue-in-cheek>

There ya go...

```
=======================
Tracy Barber
-----------------------
adirondack-pc
-----------------------
"Freebie Stamp Project"
=======================
```

356. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:29:32 UTC
From: mohawky@charter.net
Message-ID: <93h6a1htq122pa8dd6t4kqbfq506rmurlu@4ax.com>
Source record: 75821
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sat, 4 Jun 2005 22:14:43 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Tony:
>
>Good example of what I am trying to explain right now, is over in
>Iraq... those are the Iraqi peoples oil wells we are/have liberated...
>however, once again, I think we are finding the parties are NOT
>deserving of the property liberated--I am beginning to fear, once again,
>we may have to keep 'em... <evil grin>

Do ya think that oil prices will drop if we "start" to use Iraqi oil?

==========
Tracy Barber
----
adirondack-pc

"Freebie Stamp Project"
==========

357. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:32:56 UTC
From: mohawky@charter.net
Message-ID: <65h6a19o75l4o00getq07nsba71todgkcn@4ax.com>
Source record: 75823
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sun, 5 Jun 2005 09:18:14 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>My goodness, that statement surely raises my expectations... I shall
>keep a keen ear tuned upon your words of wisdom, I have not expected
>this much since I was a child awaking on Xmas morning to gifts of wonder
>and delight... I sure hope you can stand up to what you boast... will
>stand awaiting your dissertations of enlightenment...

Tony seems to have PMS lately. It's OK, it's a passing (gas) phase...
He has had very bright moments. :^P (Haven't we all?)

About words of enlightenment - you need to find another newsgroup.

For dissertations, there are many PhD's here, or at least professed.

As far as oil goes, well, time will tell.

```
=======================
Tracy Barber
-----------------------
adirondack-pc
-----------------------
"Freebie Stamp Project"
=======================
```

358. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:33:49 UTC
From: mohawky@charter.net
Message-ID: <mbh6a1hn4jsdoq8dc8av553q8pv15pihmh@4ax.com>
Source record: 75824
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sun, 05 Jun 2005 08:36:38 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Tony Elka wrote:
>> You do realize that Texas was part of Mexico before we stole it?
>
>Texas was actually stolen four or five times and one
>time Mexico was the thief when they stole Texas from
>Spain. Texas was originally stolen by the Europeans
>from the Indians who thought owning land was a ridiculous
>concept.

Wow - if they only knew. :^(

==========
Tracy Barber
----
adirondack-pc

"Freebie Stamp Project"
==========

359. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:48:48 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <lOHoe.34$CI2.3468417@news.sisna.com>
Source record: 75725
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

mohawky:

LOL... I was NOT good at economics (no interest in shill games)--still,
I would bet oil prices continue to climb... <grin>

Warmest regards,
John
<mohawky@charter.net> wrote in message
news:93h6a1htq122pa8dd6t4kqbfq506rmurlu@4ax.com...
> On Sat, 4 Jun 2005 22:14:43 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Tony:
>>
>>Good example of what I am trying to explain right now, is over in
>>Iraq... those are the Iraqi peoples oil wells we are/have liberated...
>>however, once again, I think we are finding the parties are NOT
>>deserving of the property liberated--I am beginning to fear, once
>>again,
>>we may have to keep 'em... <evil grin>
>
> Do ya think that oil prices will drop if we "start" to use Iraqi oil?
>
> ========================
> Tracy Barber
> ------------------------
> adirondack-pc
> ------------------------
> "Freebie Stamp Project"
> ========================

360. FA: My items on e-bay....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:52:33 UTC
From: me <k8cpa@k8cpa.org>
Message-ID: <vdi6a15v9hip5ugpv4bvul6f665ip5r953@4ax.com>
Source record: 75726

http://cgi3.ebay.com/ws/eBayISAPI.dll?ViewUserPage&userid=k8cpa

Paypal welcomed and prefered....

73 de Chuck - K8CPA

361. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:53:17 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <192dnWVwJ45e1z7fRVn-uA@comcast.com>
Source record: 75727

Tony Elka wrote:

SNIPPED
>
>
>
> You do realize that Texas was part of Mexico before we stole it?
>
> Tony

I thought we stole all 48 CONUS entities !!

362. Re: Biggest antenna ever constructed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 18:58:00 UTC
From: zzbunker <jimhunter1@comcast.com>
Message-ID: <6v2dnRLAGLPZ1j7fRVn-jg@comcast.com>
Source record: 75728
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

"Sarah H" <moggycat@aol.com> wrote in message
news:1116940404.098982.83670@g47g2000cwa.googlegroups.com...
> Arved Sandstrom wrote:
> > "Betty Boop" <betty_ready_boop@yahoo.com> wrote in message
> > news:1116804256.317468.307560@o13g2000cwo.googlegroups.com...
> > >
> > [SNIP]
> > > The result, the scientists hope, will be a fusing of atoms so that
> more
> > > energy is released than is generated by the laser beams, something
> > > scientists call fusion ignition. It is what happens when a hydrogen
> > > bomb explodes.
> >
> > It's also what has happened with several girlfriends. No laser beams
> > required even, so if you figure that it may have taken only a few
> thousands
> > or tens of thousands of dollars to make _them_ nuclear weapons, I am
> > surprised that the authorities haven't contacted me.

>
> I'm currently trying to work out if the explosion was a Good Thing or a
> Bad Thing. Explosions involving much shouting and throwing of
> household objects are usually a Bad Thing (an effective trigger for
> this type of explosion includes giving the wrong answer when asked
> "does my bum look big in this?"). The other type of explosion - the
> Good Thing - would surely cause women to donate funds heavily into your
> research program?

But, it's still only women that believe there's a difference between the
two.
So the people who know what they're doing with explosives,
always make it a point to only give Bush, Boeing, and Iraq Inc the good
explosives. Since they are retards like the Army, Navy & Air Force and
buy all their hammers at Walmart, who only buy triggers
at the moron club:

Doofus, Moron, Duh, and Microsoft, LTD.

363. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 19:04:41 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <e1loe.38$ke3.3701836@news.sisna.com>
Source record: 75729

Well, we didn't steal 'em all, we bought Alaska--after the russians stole it from the eskimos... and, Hawaii, do you think the islanders there gave it to us? Well, even if they did--the native peoples there are wanting it back and requesting us to leave...

John
"Ham op" <hamop@comcast.net> wrote in message news:192dnWVwJ45e1z7fRVn-uA@comcast.com...
> Tony Elka wrote:
>
> SNIPPED
>>
>>
>>
>> You do realize that Texas was part of Mexico before we stole it?
>>
>> Tony
>
> I thought we stole all 48 CONUS entities !!
>

364. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 19:17:01 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <GcGdnVA_s7IB0j7fRVn-qg@comcast.com>
Source record: 75730

"GeorgeF" <av8tor@licensed4funREMOVEBEFOREFLIGHT.com> wrote in message
news:z9Goe.14172$M36.12285@newsread1.news.atl.earthlink.net...
> I put up an 80 meter full wave loop using about 280 of #14 wire in
> almost a square. Each end of the loop was soldered to an SO-239
> connector. I m feeding the loop via RG-8 coax, about a 30 run.
>
> Using an MFJ Antenna Analyzer I can t find a nice low SWR point. The
> lowest I can find is at 2.5 MHz, the SWR at that point is still high at
> 3.4:1. In the 80 mtr band its 8:1 and in the 40 mtr band its 7:1.
>
> My installation is far from ideal. First, the antenna for about the
> loop is at about 20 high and the second half is about 15 high. Next,
> in the center of the loop is the metal frame work for a screen-room over
> the swimming pool (50 x 30) which I m sure interacts with the loop
> antenna to some degree. The screening is not metal however the frame
> work is.
>
> Of course I can use my MFJ-949 tuner to get a low SWR on any band but by
> doing so am I loosing efficiency? I also notice that trying to tune the
> loop the tuner seems to be very touchy! I have noticed on 20 meters
> the loop received on average about 2 S-Units better than my 20 meter
> dipole. On 40 meters it receives almost 1 S-unit better than a 160
> randomwire. On 80 meters just slightly better than a 160 randomwire.
> (all antennas I m comparing are all at about 20 high).
>
> I would have started making the loop shorter to bring up the resonate
> frequency to 80 meters however I m concerned as to why the lowest SWR I
> can find anywhere on the HF band is still over 3:1. Is it because the
> loop low to the ground (20)? Or do I need a balum? 1:1 balum? 4:1
> balum? Looking for any suggestions.
>
> TNX
> George KI4FIA
> http://www.MilAirComms.com

Sounds like s successful installation. The tuner doesn't reduce efficiency - - it just tunes out reactance, leaving a resistive load for your rig to work with. Don't worry about SWR - - your radio doesn't worry about SWR (with the reactance tuned out) - - it sees stronger signals. You did good.
Chuck W6PKP

365. Re: Biggest antenna ever constructed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 19:22:12 UTC
From: Jack Linthicum <jacklinthicum@earthlink.net>
Message-ID: <1117999332.294068.99340@g43g2000cwa.googlegroups.com>
Source record: 75731
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

zzbunker wrote:
> "Arved Sandstrom" <asandstrom@accesswave.ca> wrote in message
> news:lubke.13374$tt5.5414@edtnps90...
> > "Betty Boop" <betty_ready_boop@yahoo.com> wrote in message
> > news:1116804256.317468.307560@o13g2000cwo.googlegroups.com...
> > >
> > [SNIP]
> > > The result, the scientists hope, will be a fusing of atoms so that more
> > > energy is released than is generated by the laser beams, something
> > > scientists call fusion ignition. It is what happens when a hydrogen
> > > bomb explodes.
> >
> > It's also what has happened with several girlfriends. No laser beams
> > required even, so if you figure that it may have taken only a few
> thousands
> > or tens of thousands of dollars to make _them_ nuclear weapons, I am
> > surprised that the authorities haven't contacted me.
> >
> > I would however prefer to be referred to as the SIFPP - "Semi-Intelligent
> > Fusion Production Platform." The major failure of SIFPP has been budgetary
> > constraints...I only make so much money, so the production of an AFDD
> > ("Autonomous Female Destruction Device") has tested my wallet to its
> limits.
> >
> > > Four of the beams have been tested. When completed in 2008, the
> > > National Ignition Facility, or NIF, as the laser at the Lawrence
> > > Livermore National Laboratories is called, will dwarf many times over
> > > any laser to date.
> > [SNIP]
> >
> > Jesus, I could hope for a better name than "National Ignition Facility."
> > I'll admit that it's better than GCTC (Global Conflagration Testing
> Centre)
> > or HUCTZ (Hyper Universe Collapse Test Zone) [*]. I just am aware that
> being
> > in Nova Scotia, if the USA ignites, so may the closest parts of Canada,
> and
> > I am in one of those parts. I am not keen to move to the SDB ("Sandstrom
> > Deep Bunker") in Labrador.
>
>
> Since the only thing Livermore ever invented in their entire existence
> was the

> Natioinal Debt, they had to call it the National Ignition Facility,
> rather than the National Axe Laboratory, since that always
> confuse the grunt army with China Lake and
> The Pentagon's San Franciso Air Force.
>
>
>
> >
> > AHS
> >
> > * The projects exist, but are so black as to be ebony. But be afraid - be
> > very afraid.
> >
> >

ZZer, these HAARP filberts are really loose in the flue. Such that
mocking them comes off as only confusion and not erudition.

366. Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 19:46:17 UTC
From: Buck <iam@this.site>
Message-ID: <8el6a1t8pe788lom0cijoesenn893ip1j1@4ax.com>
Source record: 75732

Does anyone know where I can find the instructions or manual for a Solarcon A-99 antenna? I recently acquired one and would like to know more.

Thank you

--
73 for now
Buck
N4PGW

367. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 20:14:49 UTC
From: Stananger <*******@***.***>
Message-ID: <Z2Joe.10854$U_2.7462@trnddc06>
Source record: 75733

Buck wrote:

> Does anyone know where I can find the instructions or manual for a
> Solarcon A-99 antenna? I recently acquired one and would like to know
> more.
>
> Thank you
>
>

Theres a website that shows whats inside the antenna, boy, are you in for a surprise!!

do a search for it, I hope you didnt pay too much for it!!

368. Re: Biggest antenna ever constructed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 20:35:38 UTC
From: zzbunker <jimhunter1@comcast.com>
Message-ID: <QsKdnZ0A-Lq7_z7fRVn-tg@comcast.com>
Source record: 75734
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

"Jack Linthicum" <jacklinthicum@earthlink.net> wrote in message
news:1117999332.294068.99340@g43g2000cwa.googlegroups.com...
>
>
> zzbunker wrote:
> > "Arved Sandstrom" <asandstrom@accesswave.ca> wrote in message
> > news:lubke.13374$tt5.5414@edtnps90...
> > > "Betty Boop" <betty_ready_boop@yahoo.com> wrote in message
> > > news:1116804256.317468.307560@o13g2000cwo.googlegroups.com...
> > > >
> > > [SNIP]
> > > > The result, the scientists hope, will be a fusing of atoms so that
more
> > > > energy is released than is generated by the laser beams, something
> > > > scientists call fusion ignition. It is what happens when a hydrogen
> > > > bomb explodes.
> > >
> > > It's also what has happened with several girlfriends. No laser beams
> > > required even, so if you figure that it may have taken only a few
> > thousands
> > > or tens of thousands of dollars to make _them_ nuclear weapons, I am
> > > surprised that the authorities haven't contacted me.
> > >
> > > I would however prefer to be referred to as the SIFPP -
"Semi-Intelligent
> > > Fusion Production Platform." The major failure of SIFPP has been
budgetary
> > > constraints...I only make so much money, so the production of an AFDD
> > > ("Autonomous Female Destruction Device") has tested my wallet to its
> > limits.
> > >
> > > > Four of the beams have been tested. When completed in 2008, the
> > > > National Ignition Facility, or NIF, as the laser at the Lawrence
> > > > Livermore National Laboratories is called, will dwarf many times
over
> > > > any laser to date.
> > > [SNIP]
> > >
> > > Jesus, I could hope for a better name than "National Ignition
Facility."
> > > I'll admit that it's better than GCTC (Global Conflagration Testing
> > Centre)
> > > or HUCTZ (Hyper Universe Collapse Test Zone) [*]. I just am aware that

> > being
> > > in Nova Scotia, if the USA ignites, so may the closest parts of
Canada,
> > and
> > > I am in one of those parts. I am not keen to move to the SDB
("Sandstrom
> > > Deep Bunker") in Labrador.
> >
> >
> > Since the only thing Livermore ever invented in their entire
existence
> > was the
> > Natioinal Debt, they had to call it the National Ignition
Facility,
> > rather than the National Axe Laboratory, since that always
> > confuse the grunt army with China Lake and
> > The Pentagon's San Franciso Air Force.
> >
> >
> >
> > >
> > > AHS
> > >
> > > * The projects exist, but are so black as to be ebony. But be afraid -
be
> > > very afraid.
> > >
> > >
>
> ZZer, these HAARP filberts are really loose in the flue. Such that
> mocking them comes off as only confusion and not erudition.

So you're trying to say that Livermore and the idiots at Pentagain
invented
something that even the North Korean miners club knows that the
Russians and Isaac Asimov invented.

Well it's good that rec.radio.amateur.antenna is on the thread.
Since even Hong Kong has stupid people, not only New York City.

>

369. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 20:36:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <bnJoe.44$ZT4.4723761@news.sisna.com>
Source record: 75738

Isn't the antron a very similar antenna--if not the same ant marketed
under another name?

John

"Buck" <iam@this.site> wrote in message
news:8el6a1t8pe788lom0cijoesenn893ip1j1@4ax.com...
> Does anyone know where I can find the instructions or manual for a
> Solarcon A-99 antenna? I recently acquired one and would like to know
> more.
>
> Thank you
>
>
> --
> 73 for now
> Buck
> N4PGW

370. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 20:51:06 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <_AJoe.24809$J12.2826@newssvr14.news.prodigy.com>
Source record: 75735

Richard Clark wrote:
> On Sun, 5 Jun 2005 17:52:50 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>
>>GBS was not happy with the script. The political content of his play
>>was distorted beyond recognition. But that's just Hollywood's
>>pro-american propaganda for you.
>
>
> Hi Reg,
>
> They should've stayed with GBS' pro-British propaganda? Or rather his
> anti-British propaganda? What you offer sounds like a plagiarized
> play program note.
>
> 73's
> Richard Clark, KB7QHC

George Bernard Shaw was a Fabian socialist. He believed that the aim
of most people of the society of his day was to become so wealthy as
to become economic parasites who didn't produce and didn't contribute.
He didn't like this, so he preached against it in his works. Since
producing wealthy parasites was what the business side of Hollywood
has always been about, it's no wonder they emasculated his script.
73,
Tom Donaly, KA6RUH

371. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 20:52:22 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-239A2B.13522205062005@news.newsguy.com>
Source record: 75736
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <eBFoe.16$cd6.2029686@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> My goodness, that statement surely raises my expectations... I shall
> keep a keen ear tuned upon your words of wisdom, I have not expected
> this much since I was a child awaking on Xmas morning to gifts of wonder
> and delight... I sure hope you can stand up to what you boast... will
> stand awaiting your dissertations of enlightenment...

It wasn't a boast, it was an observation. You're a heartless fool.

I offer you no more enlightenment than you'd receive from an honest
assessment of yourself. But that is unlikely. Your ego, which you
displayed with that last paragraph of self-puffery, won't allow it.

Instead, I fully expect you to congratulate yourself on a self-awarded
victory.

Enjoy your party of one.

Tony

372. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 21:23:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <u3Koe.51$FT4.4714520@news.sisna.com>
Source record: 75739
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony:

You give yourself away--that is NOT my ego--it is the low self-opinion
you hold of yourself... I simply state the obvious... what I remarked
on looks only apparent in your words... apparently you don't like my
text which appears something like a "JackA$$" would write--according to
you--so let us have a bit of yours to examine...

Warmest regards,
John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-239A2B.13522205062005@news.newsguy.com...
> In article <eBFoe.16$cd6.2029686@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> My goodness, that statement surely raises my expectations... I shall
>> keep a keen ear tuned upon your words of wisdom, I have not expected
>> this much since I was a child awaking on Xmas morning to gifts of
>> wonder
>> and delight... I sure hope you can stand up to what you boast... will
>> stand awaiting your dissertations of enlightenment...
>
>
>
>
> It wasn't a boast, it was an observation. You're a heartless fool.
>
> I offer you no more enlightenment than you'd receive from an honest
> assessment of yourself. But that is unlikely. Your ego, which you
> displayed with that last paragraph of self-puffery, won't allow it.
>
> Instead, I fully expect you to congratulate yourself on a self-awarded
> victory.
>
> Enjoy your party of one.
>
> Tony

373. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 21:23:37 UTC
From: GeorgeF <av8tor@licensed4funREMOVEBEFOREFLIGHT.com>
Message-ID: <t3Koe.14316$M36.10250@newsread1.news.atl.earthlink.net>
Source record: 75737

>
> Now all your previous complaints sound like whining. Do you want a
> tuned antenna, or a gain antenna?
>
> BOTH!?
>
> 73's
> Richard Clark, KB7QHC

There is one SO-239 connector, there is one piece of wire which is 280' in lenght. On end of the wire is connected to the center pin of the SO-239 connector while the other end of the wire is connected to the braid side of the SO-239. Hope that clears up the configuration questions.

No I am not choking at the feed point. I was not told about a choke by other hams who mentioned I should give an 80 meter loop a try. Is a choke the same as a 1:1 balun? I was told (and found it also illistrated in print) that I could directly hook 50 ohm coax to the feedpoint. Tell me what I need to do to choke the feedpoint.

I had seen (believe it was one of the ARRL handbooks) that this antenna should have no SWR higher than 3:1, mine is 7+:1 so I think either I did something wrong or am missing something. Don't think I'm whining yet....

George

374. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 21:58:06 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <OzKoe.92$I14.38@newssvr12.news.prodigy.com>
Source record: 75740

In TV broadcasting reflections from the antenna back to the transmitter will
be reflected by the transmitter to the antenna and the signal will be
rebroadcast albeit at somewhat less power. Then depending on the length of
transmission line the viewer may see ghosting.
In audio I don't know why and I have run my Collins 30S-1 into ladder line
with a 14 to SWR with no one except me knowing!

--

73
Hank WD5JFR
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:t696a19dfh1617b63gpb83t0d9sjbcm2j9@4ax.com...
> On Sun, 5 Jun 2005 10:02:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>>You have created an all encompassing case from the original SWR of 1.7:1
>
> Thanx Fred,
>
> No one has ever been able to answer when the Transmitter rereflects
> energy, why they need a tuner.
>
> 73's
> Richard Clark, KB7QHC

375. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 22:43:59 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-542C9B.15435905062005@news.newsguy.com>
Source record: 75742
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <u3Koe.51$FT4.4714520@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> Tony:
>
> You give yourself away--that is NOT my ego--it is the low self-opinion
> you hold of yourself...

That doesn't mean anything.

> I simply state the obvious... what I remarked
> on looks only apparent in your words...

Same goes for that.

> apparently you don't like my
> text which appears something like a "JackA$$" would write--according to
> you--so let us have a bit of yours to examine...

No, you don't get to play the part of wise-teacher grading my exam, it's
a painfully obvious ploy to assume a power dynamic that you are not
entitled to.

I called you the village idiot because of what you had to say about the
people of Iraq, and for following it up with that moronic "evil grin" in
brackets.

If you find it that painful to be insulted, then don't post idiotic
things.

Tony

376. Re: FA: My items on e-bay....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 22:56:12 UTC
From: george <george_by@bygeorge.com>
Message-ID: <42A382B8.3069970B@bygeorge.com>
Source record: 75741

Reported to Ebay for spamming usenet.

No antenna on ebay FA for k8cpa.

geo

me wrote:

> http://cgi3.ebay.com/ws/eBayISAPI.dll?ViewUserPage&userid=k8cpa
>
> Paypal welcomed and prefered....
>
> 73 de Chuck - K8CPA

377. Re: FA: My items on e-bay....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 22:59:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <FtLoe.62$Ai.5644439@news.sisna.com>
Source record: 75747

ohh no, ebay is going to start policing and protecting usenet now...
what is the world coming to--I thought they would just have their hands
full just attempting to hold auctions...

John
"george" <george_by@bygeorge.com> wrote in message
news:42A382B8.3069970B@bygeorge.com...
> Reported to Ebay for spamming usenet.
>
> No antenna on ebay FA for k8cpa.
>
> geo
>
> me wrote:
>
>> http://cgi3.ebay.com/ws/eBayISAPI.dll?ViewUserPage&userid=k8cpa
>>
>> Paypal welcomed and prefered....
>>
>> 73 de Chuck - K8CPA
>

378. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:03:58 UTC
From: kashe@sonic.net
Message-ID: <k217a1lpvrck4bh5tndcasm6017maa6r7a@4ax.com>
Source record: 75743

On Wed, 01 Jun 2005 15:03:12 -0400, clvrmnky
<clvrmnky-uunet@coldmail.com.invalid> wrote:

>On 31/05/2005 12:01 PM, John Smith wrote:
>> Dead languages are languages like cobol, pascal, fortran and basic--they
>> are still used, but out of main stream.
>>
>Indeed, these are certainly legacy languages. It might, however, ruffle
>a few feathers to throw COBOL into the same basket as Pascal. Your
>local bank manager or technical advisor may disagree violently on this
>subject.

Especially your bank's loan officer. I know for certain that
the code to determine your credit rating is still written in COBOL.

379. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:11:13 UTC
From: Russ Renaud <va3rr@yahoo.ca>
Message-ID: <vMCdnWeZ1tlWGz7fRVn-tw@teksavvy.com>
Source record: 75744
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

DaveC wrote:
> Thanks, Russ, for your observations.
>
>
>>If you are OK with linear polarization (is the antenna for WiFi use?),
>>I suspect a biquad would provide better illumination than a cantenna
>>or a patch. Not that the latter two wouldn't work, it's just they
>>aren't optimum for that f/D
>
>
> Yes, WiFi. If need be, can't I just rotate the biquad feed by 90 deg. and get
> horiz. polarization?
>
> Yeah, I see (via net search) that biquad fits nicely with a 0.7 f/D dish.
>
> Thanks again,

Yes. Just turn the biquad so the one quad is 'on top' of the lower quad
and you will have horizonal polarization. The pattern looks pretty
symmetrical in both the E and H planes

Best of luck

380. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:20:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a726rgtq9h12@corp.supernews.com>
Source record: 75745

H. Adam Stevens, NQ5H wrote:
> Roy
> Worst case.
> Get it?
> H.

No, sorry, I don't. The result will be as I posted in the best case, worst case, and typical case.

What conditions would cause it to be different?

Roy Lewallen, W7EL

381. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:22:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a729r84h25a65@corp.supernews.com>
Source record: 75746

H. Adam Stevens, NQ5H wrote:
> One more time.
> It was a WORST CASE calculation which placed an upper bound on the possible
> loss
> from operating into a 1.7:1 SWR as opposed to a 1:1 SWR.
> In practice most of the power is eventually radiated.
> sheesh!
> H.

Please give us the conditions (cable Z0, load Z, or whatever you need)
that cause this "worst case" to occur.

Roy Lewallen, W7EL

382. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:29:43 UTC
From: kashe@sonic.net
Message-ID: <f527a1p12989usuu0p5bl0o8r91ibu6m8d@4ax.com>
Source record: 75748

On Thu, 02 Jun 2005 10:42:34 -0400, clvrmnky
<clvrmnky-uunet@coldmail.com.invalid> wrote:

>On 01/06/2005 6:03 PM, John Smith wrote:
>>
>> If you do not trust your programmers, you will limit them with their
>> language--I guess I am luckily I still have a position where all which
>> matters is our results and the department head is a strong programmer
>> with acceptable backbone... the coding dept here is looked upon as a
>> blackbox, you hand us specs, we give you working code... if all goes
>> well, no complaints... no one second guess you...

And no one to competently review your code to verify that it
does exactly what the specs say and not a whit more. God willing, your
shop never gets within shooting distance of my checking account or
life support system.

Say, you guys wouldn't be behind the famous control code for
the equipment which allowed radiation therapy patients to receive tens
or hundreds of times the prescribed radiation dosage, would it? "All
wen well" until patients started dying.

>> I know COBOL programmers argue syntax as if their very lives depended on
>> it (other languages too, to at least a degree), why has always been a
>> complete mystery to me, in the end I just chalked it up to fear of
>> "C"...

It's common for those whose ideas aren't accepted to "chalk it
up to fear" on the part of others. It's easier by far than proving
your case.

383. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:30:19 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <V5ydneH9XbhjFz7fRVn-2A@comcast.com>
Source record: 75749

"GeorgeF" <av8tor@licensed4funREMOVEBEFOREFLIGHT.com> wrote in message
news:t3Koe.14316$M36.10250@newsread1.news.atl.earthlink.net...
>
>>
>> Now all your previous complaints sound like whining. Do you want a
>> tuned antenna, or a gain antenna?
>>
>> BOTH!?
>>
>> 73's
>> Richard Clark, KB7QHC
>
>
> There is one SO-239 connector, there is one piece of wire which is 280' in
> lenght. On end of the wire is connected to the center pin of the SO-239
> connector while the other end of the wire is connected to the braid side
> of the SO-239. Hope that clears up the configuration questions.
>
> No I am not choking at the feed point. I was not told about a choke by
> other hams who mentioned I should give an 80 meter loop a try. Is a choke
> the same as a 1:1 balun? I was told (and found it also illistrated in
> print) that I could directly hook 50 ohm coax to the feedpoint. Tell me
> what I need to do to choke the feedpoint.
>
> I had seen (believe it was one of the ARRL handbooks) that this antenna
> should have no SWR higher than 3:1, mine is 7+:1 so I think either I did
> something wrong or am missing something. Don't think I'm whining yet....
>
> George
>
>
George,
Since you have an MFJ Antenna Analyzer, is there some frequency, regardless
of the SWR, where the reactive part of the impedance goes to 0? I don't know
about horizontal loops, but vertical loops are not 50 Ohm antennas.

Tam/WB2TT

384. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:42:00 UTC
From: kashe@sonic.net
Message-ID: <4b37a1le8icaogks60g67hhn2rq46far7l@4ax.com>
Source record: 75752

On Fri, 3 Jun 2005 14:15:51 -0500, "Ken and Sylvia Gould"
<kensylv@netins.net> wrote:

>CQ, CQ, CQ,......GOD!! What kind of antenna are you using:?
>
>Ken, WA0SLU

Maybe a J- (for Jesus) pole?

Or, if you're Catholic, a tripole?

385. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:43:09 UTC
From: kashe@sonic.net
Message-ID: <of37a1pjknjtrsgnhmpd9tlcqem78dusfo@4ax.com>
Source record: 75750

On Fri, 03 Jun 2005 14:34:23 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Ken and Sylvia Gould wrote:
>> CQ, CQ, CQ,......GOD!! What kind of antenna are you using:?
>
>Ever see a drawing of the gold-covered Ark? Those folded
>wings look a lot like a dipole. Maybe it should have been
>named the "Arc of the Covenant". :-)
>
> From the TLC web site: "The specifications also included the two gold
>cherubs that decorated the ends of the "mercy seat" atop the Ark, from
>which God would communicate with Moses. These manifestations were said
>to take the form of a glowing cloud, sparking between the outstretched
>wings of the cherubims."
>
>"But the Ark could be unpredictable. When the glowing cloud arced
>between the cherubims, Moses himself would often keep clear of the
>Tabernacle as implied in Exodus 40:35. Biblical accounts describe a Holy
>Ark that seems to strike down its caretakers with the same raw power
>unleashed against its caretakers' enemies. The sons of Aaron ï¿½ Moses'
>own nephews ï¿½ were struck dead by the fire of the Lord. when they bring
>the wrong offering before the Ark. In 2 Samuel 6:7, during a celebration
>in Jerusalem, the driver of the cart bearing the Ark reaches out to
>steady the golden box and falls dead at its touch."

RF safety is Job One.

386. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:44:09 UTC
From: kashe@sonic.net
Message-ID: <sg37a1piu7a7hmv9n5revlnlpmcv6sahuf@4ax.com>
Source record: 75751
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Thu, 2 Jun 2005 18:33:47 +0100, "Dori A Schmetterling"
<ng@nospam.co.uk> wrote:

>I chose my words carefully....
>
>You chopped out the relevant bit: "in the last 2000 years or so."

As a meaningless restriction aimed at getting your chosen
answer.

>
>The bible ends long before that.
>
>DAS
>
>For direct contact replace nospam with schmetterling
>---
>
>"Cecil Moore" <w5dxp@hotmail.com> wrote in message
>news:429f1cad$1_1@spool9-west.superfeed.net...
>> Dori A Schmetterling wrote:
>>> Nothing like claiming to have the only right way to pave the path to mass
>>> crimes, e.g. the Crusades, and Stalin and Hitler in recent times.
>>
>> Deuteronomy 19:16,17
>> "But of the cities of these people, which the Lord thy God
>> doth give thee for an inheritance, thou shalt save alive
>> nothing that breatheth: But thou shalt utterly destroy
>> them; namely, the Hittites, and the Amorites, the Canaanites,
>> and the Perizzites, the Hivites, and the Jebusites; as the
>> Lord thy God hath commanded thee:"
>>
>> Nothing like claiming to have the only right way to
>> pave the path to mass crimes. :-)
>> --
>> 73, Cecil, http://www.qsl.net/w5dxp
>>
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>> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
>> Newsgroups
>> ----= East and West-Coast Server Farms - Total Privacy via Encryption
>> =-----

>

387. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:48:39 UTC
From: kashe@sonic.net
Message-ID: <an37a1h22222ndp3ldfmrjn856m7ht8lur@4ax.com>
Source record: 75753
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On 2 Jun 2005 08:18:09 -0700, "Steve Carras" <gcarras@aol.com> wrote:

>WHAT the FUCK relevance does THIS have to do with the topic or with the
>newsgroup's basis?/?????

Ahh, let's discuss that. I'm sure it will be as successful as
the original thread.

And why do you find need to use the word FUCK in a gentlemanly
group like r.r.a.a?

388. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:55:26 UTC
From: kashe@sonic.net
Message-ID: <2647a1pogjhoue1g9seb0cr6s41665ki32@4ax.com>
Source record: 75755
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Thu, 2 Jun 2005 11:51:06 -0400, "Daniel J. Stern"
<dastern@127.0.0.1> wrote:

>On Thu, 2 Jun 2005, Steve Carras wrote:
>
>> WHAT the FUCK relevance does THIS have to do with the topic or with the
>> newsgroup's basis?/?????
>
>Tiddly widdly widdly, powf powf powf.

At last -- a sensible answer to the age-old question!

389. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-05 23:56:49 UTC
From: kashe@sonic.net
Message-ID: <o747a15k55qj2638742b4kem868jjbpj87@4ax.com>
Source record: 75754
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Thu, 02 Jun 2005 15:51:17 GMT, Steve Hoskins
<sjhhoskins@earthlink.net> wrote:

>On 2 Jun 2005 08:18:09 -0700, "Steve Carras" <gcarras@aol.com> wrote :
>
>>WHAT the FUCK relevance does THIS have to do with the topic or with the
>>newsgroup's basis?/?????
>
>Simple. Some MORON into model railroading just HAD to respond to the
>original thread. They just can't stay off the keyboard.

Actually rec.autos.makers.chrysler only _seems_ to be bout
model railroading.

390. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:00:14 UTC
From: kashe@sonic.net
Message-ID: <4e47a1hpvjs9jeb1r1lktcmtkeh61jdnm2@4ax.com>
Source record: 75756

On Wed, 01 Jun 2005 23:20:15 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>John Smith wrote:
>> I should point out, everyone should at least know about a smith and have
>> used it... kinda gives you a "feel" for the way all the variables work
>> together... it is a good thing...
>
>For me, the biggest advantage of the Smith Chart is that I can
>carry it around in my head. It is a graphical math model of
>a transmission line. A picture is worth a thousand calculators.

Old sayings:

A picture is worth a thousand words.

A word is worth a thousand pictures ... if it's the right word.

391. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:03:11 UTC
From: kashe@sonic.net
Message-ID: <di47a1pd7ikrvgkoroaps8fmdfie6984oi@4ax.com>
Source record: 75757

On Wed, 01 Jun 2005 20:33:05 -0500, Tom Ring <news0002@taring.org>
wrote:

>Hal Rosser wrote:
>
>> So now you're pickin' on my slide rule? Is nothing sacred??
>> I like my slide rule. Its more useful than my solar-powered flashlight.
>> The slide rule works without <any> power or batteries. :-)
>> And its accurate to 3 (sometimes 4) significant digits.
>
>Solar powered flashlight? Heck, we have a made up loony lefty here in
>Minneapolis who wants people to use electric powered generators to
>reduce noise and pollution during emergencies. Morgan Q. E.
>Wolfe-Slattery, a true Euphorian.
>
>I have 2 slide rules that I picked up recently, but I miss my easy on
>the eyes yellow aluminum Pickett LogLogDeciTrig (I think that's what it
>was) that got misplaced during a move a couple decades ago. I also wish
>I still had my HP35, 45 and 11C. I do have a working HP25, 15C and 48SX
>though.

My sharp stick needs only infrequent exposure to fire to allow
me to solve differential equasions. And that's only if there's not a
smooth bed of sand nearby.

392. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:05:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a39420$1_1@spool9-west.superfeed.net>
Source record: 75758

Fred W4JLE wrote:
> Cecil, for every question, there are any number of answers if you refashion
> the question. In this case the SWR was defined as !.7:1

!.7:1???? I must admit, that's a new one on me. :-)

My statements were general, and apply to any SWR.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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393. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:14:06 UTC
From: wcb <wbarwell@mylinuxisp.com>
Message-ID: <11a74umdpqd4g83@corp.supernews.com>
Source record: 75759
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

mohawky@charter.net wrote:

> On Sat, 04 Jun 2005 20:00:48 -0700, Tony Elka
> <shadowlane@shadowlane.com> wrote:
>
>>In article <42a2481a$1_1@spool9-west.superfeed.net>,
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>
>>> I've always wanted to go back in time and take a few
>>> Gatling guns back to the Alamo - and maybe a few cases
>>> of hand grenades.
>>
>>
>>You do realize that Texas was part of Mexico before we stole it?
>
> You do realize that Texas was part of Native Americans indigenous land
> before the Spanish stole it?

Before the first indians came here it belonged to the
raccoons and possums.

--

When I shake my killfile, I can hear them buzzing!

Cheerful Charlie

394. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:16:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a396b1$1_1@spool9-west.superfeed.net>
Source record: 75760

GeorgeF wrote:
> I would have started making the loop shorter to bring up the resonate
> frequency to 80 meters however Iï¿½m concerned as to why the lowest SWR I
> can find anywhere on the HF band is still over 3:1. Is it because the
> loop low to the ground (20ï¿½)? Or do I need a balum? 1:1 balum? 4:1
> balum? Looking for any suggestions.

Common mode current could be upsetting your measurements as you
are feeding a balanced antenna with coax. Your loop seems to be
too long to resonate on the 75m band. By shortening it, you can
probably move that 3.4:1 point into the 75m band. But why not just
feed it with 450 ohm ladder-line through a balun at a tuner output
and alleviate most of your problems?
--
73, Cecil http://www.qsl.net/w5dxp

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395. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:21:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a397f2$1_1@spool9-west.superfeed.net>
Source record: 75761

Chuck Olson wrote:
> The tuner doesn't reduce efficiency - -

There's no such thing as a 100% efficient tuner.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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396. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:25:25 UTC
From: kashe@sonic.net
Message-ID: <gu57a11nqm2mq75egignj7ilakrrmevhc3@4ax.com>
Source record: 75764

On Fri, 03 Jun 2005 17:48:42 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Walter Maxwell wrote:
>> Sorry, Ken, knots are a no-no. DC can travel through them, but RF? Uhn Uh. The
>> RF gets all tied up in them and doesn't know which way to go, so the power
>> concentrates there and pulverizes both the wire and the insulation--the knot
>> goes pooof! And down comes the dipole. How much did you say you paid for it?
>
>At one place I worked in CA, we put a knot in the AC line of
>our soldering irons and hung them on cup hooks on the wall when
>not in use.
>
>I was using one at a bench when a secretary asked me what the
>knot was for. I told her that's how we regulate the temperature
>of the iron - the tighter the knot, the fewer the electrons
>getting to the heating element. Physics was not her long suit.

Did she look OK in a short suit? :-)

397. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:28:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a3999a$1_1@spool9-west.superfeed.net>
Source record: 75762
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

kashe@sonic.net wrote:

> "Steve Carras" <gcarras@aol.com> wrote:
>>WHAT the FUCK relevance does THIS have to do with the topic or with the
>>newsgroup's basis?/?????
>
> And why do you find need to use the word FUCK in a gentlemanly
> group like r.r.a.a?

That is certainly a violation of usenet guidelines. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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398. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:29:09 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qNMoe.66$VB2.6847631@news.sisna.com>
Source record: 75675

Ahhh, "...who watches the watchers....?"
And, "... how can we ever release this code, there still might be one
error in the 30,000 pages of well documented source... ?"
... questions to which there are many answers...

Warmest regards,
John

<kashe@sonic.net> wrote in message
news:f527a1p12989usuu0p5bl0o8r91ibu6m8d@4ax.com...
> On Thu, 02 Jun 2005 10:42:34 -0400, clvrmnky
> <clvrmnky-uunet@coldmail.com.invalid> wrote:
>
>>On 01/06/2005 6:03 PM, John Smith wrote:
>>>
>>> If you do not trust your programmers, you will limit them with their
>>> language--I guess I am luckily I still have a position where all
>>> which
>>> matters is our results and the department head is a strong
>>> programmer
>>> with acceptable backbone... the coding dept here is looked upon as
>>> a
>>> blackbox, you hand us specs, we give you working code... if all
>>> goes
>>> well, no complaints... no one second guess you...
>
> And no one to competently review your code to verify that it
> does exactly what the specs say and not a whit more. God willing, your
> shop never gets within shooting distance of my checking account or
> life support system.
>
> Say, you guys wouldn't be behind the famous control code for
> the equipment which allowed radiation therapy patients to receive tens
> or hundreds of times the prescribed radiation dosage, would it? "All
> wen well" until patients started dying.
>
>
>>> I know COBOL programmers argue syntax as if their very lives
>>> depended on
>>> it (other languages too, to at least a degree), why has always been
>>> a
>>> complete mystery to me, in the end I just chalked it up to fear of
>>> "C"...
>
>

> It's common for those whose ideas aren't accepted to "chalk it
> up to fear" on the part of others. It's easier by far than proving
> your case.

399. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:29:51 UTC
From: kashe@sonic.net
Message-ID: <j667a116sqvekgras0vavjjs1rbiah0ik7@4ax.com>
Source record: 75763

On Fri, 3 Jun 2005 19:55:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Only if it is tied really tight. The electrons can't make sharp turns at
>C*VF and end up somewhere else.

They flp off the sharp curves and fall to the ground where
they lay writhing until they expire.
>.
>
>
>"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
>news:Q64oe.9868$Wr.5569@fed1read04...
>> Does a knot in insulated 16g stranded wire pose a problem
>> for a dipole at HF freqs? This is a 66' FD dipole, coax fed,
>> operating 40-10m with a KAT2 autotuner. The knots are 1/2"
>> away from the feedpoint & lock the antenna to it's center
>> insulator.
>>
>> Ken
>>
>> --
>> Just my 2ï¿½ worth... 73's es gd dx de Ken KGï¿½WX
>> Grid EM17ip, Flying Pigs #-1055, Digital On Six #350,
>> Proud builder & owner of Elecraft K2 #4913
>>
>>
>

400. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:31:42 UTC
From: Bill Putney <bptn@kinez.net>
Message-ID: <d805l9$49j$3@news.isdn.net>
Source record: 75770
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

wcb wrote:

> mohawky@charter.net wrote:
>
>
>>On Sat, 04 Jun 2005 20:00:48 -0700, Tony Elka
>><shadowlane@shadowlane.com> wrote:
>>
>>
>>>In article <42a2481a$1_1@spool9-west.superfeed.net>,
>>>Cecil Moore <w5dxp@hotmail.com> wrote:
>>>
>>>
>>>>I've always wanted to go back in time and take a few
>>>>Gatling guns back to the Alamo - and maybe a few cases
>>>>of hand grenades.
>>>
>>>
>>>You do realize that Texas was part of Mexico before we stole it?
>>
>>You do realize that Texas was part of Native Americans indigenous land
>>before the Spanish stole it?
>
>
> Before the first indians came here it belonged to the
> raccoons and possums.
>

Wait a minute - back the truck up. I thought the Injuns didn't believe
in ownership of property. So if they didn't own it, how could anyone
steal it from them? Riddle me that.

Bill Putney
(To reply by e-mail, replace the last letter of the alphabet in my
adddress with the letter 'x')

401. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:33:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <mRMoe.67$NK2.6963256@news.sisna.com>
Source record: 75774

Banks and gov'ts are like religious organizations, they tend to adopt
"bibles", I really never look for these institutions to be
"progressive." Frankly, if you offered up that bank code employed a lot
of Hebrew and Greek, I'd investigate first before claiming naught...

... heck, as far as bankers go--I'd not even be surprised if they were
the direct decedents of the original "money lenders in the temple."

Warmest regards,
John

<kashe@sonic.net> wrote in message
news:k217a1lpvrck4bh5tndcasm6017maa6r7a@4ax.com...
> On Wed, 01 Jun 2005 15:03:12 -0400, clvrmnky
> <clvrmnky-uunet@coldmail.com.invalid> wrote:
>
>>On 31/05/2005 12:01 PM, John Smith wrote:
>>> Dead languages are languages like cobol, pascal, fortran and
>>> basic--they
>>> are still used, but out of main stream.
>>>
>>Indeed, these are certainly legacy languages. It might, however,
>>ruffle
>>a few feathers to throw COBOL into the same basket as Pascal. Your
>>local bank manager or technical advisor may disagree violently on this
>>subject.
>
> Especially your bank's loan officer. I know for certain that
> the code to determine your credit rating is still written in COBOL.
>

402. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:36:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3UMoe.68$6D2.6898782@news.sisna.com>
Source record: 75773
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

You provoke the argument, then begin telling me what I am doing and
whether I will do it or not... your model of debate is indeed a strange
one...
... you have but one choice, if you don't like my posts, don't read the
damn things... I certainly will be mortally wounded--but trust me--I'll
get over it...

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-542C9B.15435905062005@news.newsguy.com...
> In article <u3Koe.51$FT4.4714520@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> Tony:
>>
>> You give yourself away--that is NOT my ego--it is the low
>> self-opinion
>> you hold of yourself...
>
>
> That doesn't mean anything.
>
>
>
>
>> I simply state the obvious... what I remarked
>> on looks only apparent in your words...
>
>
> Same goes for that.
>
>
>
>
>
>
>> apparently you don't like my
>> text which appears something like a "JackA$$" would write--according
>> to
>> you--so let us have a bit of yours to examine...
>
>
>

> No, you don't get to play the part of wise-teacher grading my exam,
> it's
> a painfully obvious ploy to assume a power dynamic that you are not
> entitled to.
>
> I called you the village idiot because of what you had to say about
> the
> people of Iraq, and for following it up with that moronic "evil grin"
> in
> brackets.
>
> If you find it that painful to be insulted, then don't post idiotic
> things.
>
> Tony

403. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:48:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a39e43$1_2@spool9-west.superfeed.net>
Source record: 75765

H. Adam Stevens, NQ5H wrote:

> One more time.
> It was a WORST CASE calculation which placed an upper bound on the possible
> loss from operating into a 1.7:1 SWR as opposed to a 1:1 SWR.
> In practice most of the power is eventually radiated.

As Roy, W7EL, previously indicated:

Power reflection coefficient:
rho^2 = [(SWR-1)/(SWR+1)]^2 = 0.067 = Pref/Pfor

1-rho^2 = 0.933 = 93.3% forward power delivered to the load

93.3 watts is 0.3 dB down from 100 watts.

The log of the ratio of two SWRs doesn't seem to have much
meaning.
--
73, Cecil http://www.qsl.net/w5dxp

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404. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:50:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a39ecb$1_2@spool9-west.superfeed.net>
Source record: 75766
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

wcb wrote:
> Before the first indians came here it belonged to the
> raccoons and possums.

That didn't even exist when T-Rex ruled.
--
73, Cecil http://www.qsl.net/w5dxp

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405. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:55:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a3a008$1_2@spool9-west.superfeed.net>
Source record: 75767

kashe@sonic.net wrote:
> Did she look OK in a short suit? :-)

This was back in the 1970's free love days in Silicon
Valley. She wore mini-skirts and no panties. Every day
when she left work, the R&D engineers would gather round
the window and pray for the wind to blow.
--
73, Cecil http://www.qsl.net/w5dxp

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406. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 00:57:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <6cNoe.72$183.7564412@news.sisna.com>
Source record: 75772
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

An ever better question would be, "Who will own it next (steal it next?)" We may thump our chests and cry our greatness--societies have done so before us, I think us fools if we believe we have discovered a society which will not crumble. Now, we may have--I keep an open mind--however, it will be the first if so... and there ARE enemies out there...

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a39ecb$1_2@spool9-west.superfeed.net...
> wcb wrote:
>> Before the first indians came here it belonged to the raccoons and
>> possums.
>
> That didn't even exist when T-Rex ruled.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
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407. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 01:49:53 UTC
From: mohawky@charter.net
Message-ID: <lta7a1hfhfagih2v0khj9mrlnpj9utdrk2@4ax.com>
Source record: 75676
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sun, 05 Jun 2005 19:14:06 -0500, wcb <wbarwell@mylinuxisp.com>
wrote:

>mohawky@charter.net wrote:
>
>> On Sat, 04 Jun 2005 20:00:48 -0700, Tony Elka
>> <shadowlane@shadowlane.com> wrote:
>>
>>>In article <42a2481a$1_1@spool9-west.superfeed.net>,
>>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>>
>>>> I've always wanted to go back in time and take a few
>>>> Gatling guns back to the Alamo - and maybe a few cases
>>>> of hand grenades.
>>>
>>>
>>>You do realize that Texas was part of Mexico before we stole it?
>>
>> You do realize that Texas was part of Native Americans indigenous land
>> before the Spanish stole it?
>
>Before the first indians came here it belonged to the
>raccoons and possums.

And, before that, T-Rex. Yup.

=======================
Tracy Barber
----
adirondack-pc

"Freebie Stamp Project"
=======================

408. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 01:56:24 UTC
From: mohawky@charter.net
Message-ID: <c9b7a1teg46eb7csappvl1seh30j6h2pkj@4ax.com>
Source record: 75677
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sun, 05 Jun 2005 20:31:42 -0400, Bill Putney <bptn@kinez.net>
wrote:

>Wait a minute - back the truck up. I thought the Injuns didn't believe
>in ownership of property. So if they didn't own it, how could anyone
>steal it from them? Riddle me that.

So, who owned it? (Answer your question with a question.)

```
=======================
Tracy Barber
-----------------------
adirondack-pc
-----------------------
"Freebie Stamp Project"
=======================
```

409. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 02:14:01 UTC
From: Buck <iam@this.site>
Message-ID: <48c7a1lut11jmqar8gmuo8h6v1gi8g504s@4ax.com>
Source record: 75678

On Sun, 05 Jun 2005 20:14:49 GMT, Stananger <*******@***.***> wrote:

>Buck wrote:
>
>> Does anyone know where I can find the instructions or manual for a
>> Solarcon A-99 antenna? I recently acquired one and would like to know
>> more.
>>
>> Thank you
>>
>>
>
>
>Theres a website that shows whats inside the antenna, boy, are you in for a
>surprise!!
>
>do a search for it, I hope you didnt pay too much for it!!
>

Thanks, I did the search, I didn't find the picture and I didn't pay
for the antenna.

I did see the mixed reviews. They are normal for about any antenna.

I need to know what kinds of radials, mounting etc. I need.

I just have the three sticks that screw into each other.

73 for now.
Buck

--
73 for now
Buck
N4PGW

410. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 02:23:37 UTC
From: wcb <wbarwell@mylinuxisp.com>
Message-ID: <11a7chgddf5v73b@corp.supernews.com>
Source record: 75679
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

mohawky@charter.net wrote:

> On Sun, 05 Jun 2005 19:14:06 -0500, wcb <wbarwell@mylinuxisp.com>
> wrote:
>
>>mohawky@charter.net wrote:
>>
>>> On Sat, 04 Jun 2005 20:00:48 -0700, Tony Elka
>>> <shadowlane@shadowlane.com> wrote:
>>>
>>>>In article <42a2481a$1_1@spool9-west.superfeed.net>,
>>>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>>>
>>>>> I've always wanted to go back in time and take a few
>>>>> Gatling guns back to the Alamo - and maybe a few cases
>>>>> of hand grenades.
>>>>
>>>>
>>>>You do realize that Texas was part of Mexico before we stole it?
>>>
>>> You do realize that Texas was part of Native Americans indigenous land
>>> before the Spanish stole it?
>>
>>Before the first indians came here it belonged to the
>>raccoons and possums.
>
> And, before that, T-Rex. Yup.
>

No, at that time Texas was open sea.

Mososaurs and plesosaurs.

And before that, trilobites and clams.

--

When I shake my killfile, I can hear them buzzing!

Cheerful Charlie

411. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:09:08 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <r5Poe.58375$6k7.14743@bignews4.bellsouth.net>
Source record: 75680

Same antenna - Solarcon acquired from Antron - from what I've read.
Its a decent 10 meter vertical.
Clamps onto a 1-1/4 pipe with u-bolt clamps and needs no radials - (but there's a kit)
and tunes to low swr with a couple of rings at the bottom.
I like it. Many hams don't like it because a CB-er used one.

"John Smith" <assemblywizard@gmail.com> wrote in message news:bnJoe.44$ZT4.4723761@news.sisna.com...
> Isn't the antron a very similar antenna--if not the same ant marketed
> under another name?
>
> John

412. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:16:56 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a7956avpgj959@corp.supernews.com>
Source record: 75768

Good Lord Roy, I thought you knew better.

If the match at the load is not perfect, energy is refleced back to the source, are you with me so far?

I can easily build a source that absorbs all the reflected power: A zero impedance source in series with a resistor that matches the transmission line impedance.

73
H.

"Roy Lewallen" <w7el@eznec.com> wrote in message news:11a726rgtq9h12@corp.supernews.com...
> H. Adam Stevens, NQ5H wrote:
> > Roy
> > Worst case.
> > Get it?
> > H.
>
> No, sorry, I don't. The result will be as I posted in the best case,
> worst case, and typical case.
>
> What conditions would cause it to be different?
>
> Roy Lewallen, W7EL

413. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:17:23 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a7960ngsbt47b@corp.supernews.com>
Source record: 75769

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11a729r84h25a65@corp.supernews.com...
> H. Adam Stevens, NQ5H wrote:
> > One more time.
> > It was a WORST CASE calculation which placed an upper bound on the
possible
> > loss
> > from operating into a 1.7:1 SWR as opposed to a 1:1 SWR.
> > In practice most of the power is eventually radiated.
> > sheesh!
> > H.
>
> Please give us the conditions (cable Z0, load Z, or whatever you need)
> that cause this "worst case" to occur.
>
> Roy Lewallen, W7EL

See other post.

414. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:17:51 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <CdPoe.58386$6k7.58283@bignews4.bellsouth.net>
Source record: 75681

excuse my inexperience - what do you mean by "binocular core" ?
is that like a figure-8 ferite core ?
One that I opened up used a ferrite bar about twice the thickness of a
toothpick.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:M3woe.264$jb7.32815201@news.sisna.com...
> I never paid much attention, now that you mention it though, I seen one
> busted open once... this particular one had a binocular core...

415. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:18:03 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11a7979d8j56iae@corp.supernews.com>
Source record: 75771

It's called db, Cecil.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a39e43$1_2@spool9-west.superfeed.net...
> H. Adam Stevens, NQ5H wrote:
>
> > One more time.
> > It was a WORST CASE calculation which placed an upper bound on the
possible
> > loss from operating into a 1.7:1 SWR as opposed to a 1:1 SWR.
> > In practice most of the power is eventually radiated.
>
> As Roy, W7EL, previously indicated:
>
> Power reflection coefficient:
> rho^2 = [(SWR-1)/(SWR+1)]^2 = 0.067 = Pref/Pfor
>
> 1-rho^2 = 0.933 = 93.3% forward power delivered to the load
>
> 93.3 watts is 0.3 dB down from 100 watts.
>
> The log of the ratio of two SWRs doesn't seem to have much
> meaning.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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News==----
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416. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:21:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a3c216$1_2@spool9-west.superfeed.net>
Source record: 75682
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

John Smith wrote:
> An ever better question would be, "Who will own it next (steal it
> next?)" We may thump our chests and cry our greatness--societies have
> done so before us, I think us fools if we believe we have discovered a
> society which will not crumble. Now, we may have--I keep an open
> mind--however, it will be the first if so... and there ARE enemies out
> there...

Speaking of which - The National Geographic Channel recently
carried a program about another human species discovery on
Flores Island. They have been dubbed "Hobbets", averaged 3.5
ft. in height, were human, but a different species from us.
They appeared about 60,000 years ago and became extinct
about 15,000 years ago. Why would God do something like that?
--
73, Cecil http://www.qsl.net/w5dxp

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417. Re: Questions on Kenwood TKR-750 Repeater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:26:38 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <RIPoe.58397$6k7.9391@bignews4.bellsouth.net>
Source record: 75683

Usually you would use ONE antenna for a repeater instead of 2 antennas
You need a duplexer (cavity filter) so the transmitter output won't get into
the receiver's input.
You have some research to do. It's not a simple 'normal' radio
installation.

<gargaare@yahoo.com> wrote in message
news:1117848084.376173.102510@g44g2000cwa.googlegroups.com...
> Hello All,
>
> We bought a kenwood repeater TKR-750 and 2 diamond F23 antennas plus
> the programming software.
>
> Unfortunately we can't hear anything beyond one kilometer. Here are the
> frequencies we are using:
>
> TX 15900
> RX 16000
> TONE1413
>
> The equipment are being used in africa in a remote location for an NGO
> helping refugees I am back here in the states now.
>
> I would appreciate any pointers from the group.
>
> Thanks.
>
> - Nur
>

418. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:27:28 UTC
From: Bill Putney <bptn@kinez.net>
Message-ID: <d80fuq$a76$1@news.isdn.net>
Source record: 75691
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil Moore wrote:
> John Smith wrote:
>
>> An ever better question would be, "Who will own it next (steal it
>> next?)" We may thump our chests and cry our greatness--societies have
>> done so before us, I think us fools if we believe we have discovered a
>> society which will not crumble. Now, we may have--I keep an open
>> mind--however, it will be the first if so... and there ARE enemies
>> out there...
>
>
> Speaking of which - The National Geographic Channel recently
> carried a program about another human species discovery on
> Flores Island. They have been dubbed "Hobbets", averaged 3.5
> ft. in height, were human, but a different species from us.
> They appeared about 60,000 years ago and became extinct
> about 15,000 years ago. Why would God do something like that?

Were any of them gay, like in the movie? 8^)

Bill Putney
(To reply by e-mail, replace the last letter of the alphabet in my
adddress with the letter 'x')

419. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:27:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a3c39e$1_1@spool9-west.superfeed.net>
Source record: 75684
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

wcb wrote:
> No, at that time Texas was open sea.

If 8749 foot Guadalupe Peak was under water, then so
was most of the rest of the US.
--
73, Cecil http://www.qsl.net/w5dxp

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420. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:29:36 UTC
From: Bill Putney <bptn@kinez.net>
Message-ID: <d80g2r$a76$2@news.isdn.net>
Source record: 75692
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil Moore wrote:

> wcb wrote:
>
>> No, at that time Texas was open sea.
>
>
> If 8749 foot Guadalupe Peak was under water, then so
> was most of the rest of the US.

So - the realtors are lying to us when they say "Better buy land now -
they aren't making any more of it?"

Bill Putney
(To reply by e-mail, replace the last letter of the alphabet in my
adddress with the letter 'x')

421. Re: Smith Chart

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:41:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jje7a15pnhkhd2v6re50bjcuphogauer67@4ax.com>
Source record: 75685

On Sun, 05 Jun 2005 20:51:06 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>George Bernard Shaw was a Fabian socialist.

Hi Tom,

To amplify, George Bernard Shaw and GBS were two different people.

What you offered, following, is true of Shaw.

>He believed that the aim
>of most people of the society of his day was to become so wealthy as
>to become economic parasites who didn't produce and didn't contribute.
>He didn't like this, so he preached against it in his works. Since
>producing wealthy parasites was what the business side of Hollywood
>has always been about,

But how he reacted to:

> it's no wonder they emasculated his script.

was as GBS, a one man advertising agency for George Bernard Shaw. In that respect, GBS and Hollywood were on parallel tracks, even if they didn't converge. When GBS/Shaw fulminated, it was over other issues.

Basically the Fabian society's ethic was pie-in-the-sky economics that faded with Victoria. Shaw was infinitely more radical, and still more current today than ever with his up-front stories of sexual politics. Absolutely no one goes to a Shavian play to ponder the plight of masses burning the barricades before the classist society. Likewise, no one reads G.K. Chesterton and "The Man Who Was Thursday" when they can catch Father Brown instead. If you had your druthers, would you watch an edited version of "Man and Superman," or its interior play "Don Juan in Hell?"

Hollywood rebelled far more vigorously against ALL of Shaw's women protagonists than giving even the slightest thought about any economic theory. Your comment about Hollywood emasculating his scripts; in fact they pumped these scripts up with so much testosterone that "My Fair Lady" is a travesty of a woman submitting to and being redeemed by a man. It is this kind of cheesecake that sells, and selling movies is the ONLY thing Hollywood cares about.

If they thought they could sell communism (Warren Beatty's "Reds") then we would have been watching the life of Stalin in technicolor and surround-sound for the past 70 years. Anybody here ever see the movie "Greed?" This came from the pen of Frank Norris, one of the most

acidic writers against capitalism ever to come down the pike (and a contemporary of Shaw). Both of these movies were well made, by acclaimed directors and backed with wheelbarrows full of cash. To put it bluntly, neither of these examples drew crowds. Hollywood backs a winner and doesn't give a damn about ANY message as long as it doesn't interfere with selling popcorn.

73's
Richard Clark, KB7QHC

422. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:44:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jlh7a1p1gitpl4gm78g04247ubkfaedbfv@4ax.com>
Source record: 75687

On Sun, 05 Jun 2005 21:58:06 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>In TV broadcasting reflections from the antenna back to the transmitter will
>be reflected by the transmitter to the antenna and the signal will be
>rebroadcast albeit at somewhat less power.

423. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:45:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a3c7c4$1_1@spool9-west.superfeed.net>
Source record: 75686

H. Adam Stevens, NQ5H wrote:

> "Cecil Moore" <w5dxp@hotmail.com> wrote:
>>The log of the ratio of two SWRs doesn't seem to have much
>>meaning.

> It's called db, Cecil.

The IEEE Dictionary says the ratio of power, voltage, and
current can be expressed in dB. It specifically states
that dB can only be related to power ratios or to parameters
that are proportional to the square root of power ratios.

SWR1 = [SQRT(Pfor1)+SQRT(Pref1)]/[SQRT(Pfor1)-SQRT(Pref1)]

SWR2 = [SQRT(Pfor2)+SQRT(Pref2)]/[SQRT(Pfor2)-SQRT(Pref2)]

The ratio of two SWRs will not reduce to a power ratio or
to the square root of a power ratio.
--
73, Cecil http://www.qsl.net/w5dxp

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424. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:47:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a3c82a$1_1@spool9-west.superfeed.net>
Source record: 75688
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Bill Putney wrote:
> Wait a minute - back the truck up. I thought the Injuns didn't believe
> in ownership of property. So if they didn't own it, how could anyone
> steal it from them? Riddle me that.

Possession is 90% of ownership?
--
73, Cecil http://www.qsl.net/w5dxp

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425. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:53:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a7i5f3ovan1b2@corp.supernews.com>
Source record: 75689

H. Adam Stevens, NQ5H wrote:
> Good Lord Roy, I thought you knew better.
>
> If the match at the load is not perfect, energy is refleced back to the
> source, are you with me so far?
>
> I can easily build a source that absorbs all the reflected power: A zero
> impedance source in series with a resistor that matches the transmission
> line impedance.
>

Let's see, I put a 100 volt zero impedance source in series with a 50 ohm resistor, connect that to a half wave transmission line terminated with 150 ohms. The current will be 100/200 = 0.5 amp, the power in the 150 ohm load is 37.5 watts, the power in the 50 ohm source resistor is 12.5 watts. The SWR is 3:1, the forward power is 50 watts, the reverse power is 12.5 watts. Sure enough, the power in the source resistor equals the reverse power. Good job. That sure must be the worst case, all right.

Just to check, I'll change the load resistor to 16.67 ohms. Now the current is 1.5 amps, the power in the 16.67 ohm load is 37.5 watts, and the power in the source resistor is 112.5 watts. The SWR is still 3:1, the forward power is 50 watts just like before, and the reverse power is 12.5 watts just like before. Hm. The reverse power is 12.5 watts, but the source resistor is now dissipating 112.5 watts. Must be worse than the worst case.

Well, shoot, maybe the source resistor dissipates all the reverse power *plus* some more power that comes from somewhere else. So let's try a 200 ohm load. Now the current is 0.4 amp, the power in the 200 ohm load resistor is 32 watts, and the power in the 50 ohm source resistor is 8 watts. The SWR is 4:1, the forward power is 50 watts, and the reverse power is 18 watts. Oops, the source resistor is only dissipating 8 watts but the reverse power is 18 watts. Not only isn't it dissipating all the reverse power, but it isn't even dissipating that extra power that came from somewhere else when we connected the 16.67 ohm resistor. Wonder where the other 10 watts of reverse power went?(*)

So using your simple criterion of a zero impedance source and resistor equal to the transmission line impedance, and by only changing the load resistance, we've got cases where:

-- The source resistor dissipation equals the reverse power
-- The source resistor dissipation is greater than the reverse power
-- The source resistor dissipation is less than the reverse power

And none of these will explain the loss figure you gave earlier.

Guess I don't know better after all.

Anyone who's interested can find more interesting cases in "Food for thought - Forward and Reverse Power.txt" at http://eznec.com/misc/food_for_thought/. And those who aren't interested, well, you're welcome to believe what you choose. Just don't look too closely at the evidence.

(*) Anybody fond of the notion that reverse power "goes" somewhere or gets dissipated in the source or re-reflected back needs to come to grips with this problem before building further on the flawed model of bouncing waves of flowing power.

Roy Lewallen, W7EL

426. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 03:59:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a7ige445fvt20@corp.supernews.com>
Source record: 75690

Yes, SWR is a dimensionless quantity. dB is, as far as I know, defined only for power, voltage and current ratios, as the IEEE Dictionary implies. Since it's defined differently for power than for voltage or current (so that an increase or reduction in one quantity represents the same number of dB increase or decrease in the other), anyone using it for something else would have to clarify how it would be defined in that context.

Roy Lewallen, W7EL

Cecil Moore wrote:
> H. Adam Stevens, NQ5H wrote:
>
> > "Cecil Moore" <w5dxp@hotmail.com> wrote:
> >>The log of the ratio of two SWRs doesn't seem to have much
> >>meaning.
>
>> It's called db, Cecil.
>
>
> The IEEE Dictionary says the ratio of power, voltage, and
> current can be expressed in dB. It specifically states
> that dB can only be related to power ratios or to parameters
> that are proportional to the square root of power ratios.
>
> SWR1 = [SQRT(Pfor1)+SQRT(Pref1)]/[SQRT(Pfor1)-SQRT(Pref1)]
>
> SWR2 = [SQRT(Pfor2)+SQRT(Pref2)]/[SQRT(Pfor2)-SQRT(Pref2)]
>
> The ratio of two SWRs will not reduce to a power ratio or
> to the square root of a power ratio.

427. Re: Impedance of pull-up whip on SW Receiver?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 04:08:12 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <K_Poe.88$xe6.9991302@news.sisna.com>
Source record: 75697
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

As a follow up, found some excellent research on some balun testing for
just the use I mentioned, really good stuff:
http://www.dxing.info/equipment/impedance_transformer_bryant2.doc

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:LMame.163$0o.10684484@news.sisna.com...
I have a Grundig YB-500 (Yacht Boy 500) shortwave portable. I
frequently take it to remote locations with me and have enjoyed the
radio for years. It has a short pull up whip antenna, all I have done
in the past is to slingshot a long wire into a tree and use a clip lead
to attach it to the pull-up whip (no external ant connections on the
radio).

I was wondering what the impedance the collapsed whip would present, and
what sort or a balun/auto-transformer could be used between a longwire
(or other ant), gnd and the pull-up whip to improve reception...

... anyone ever done any experimenting or unique ideas?

Warmest regards,
John C. Smith

--
Watching the cutting edge of yesterday replay--in virtual reality, right
before my eyes--in real time!
Thirty year old technology--wasn't it amazing?

428. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 04:19:16 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <89Qoe.89$zw6.10274978@news.sisna.com>
Source record: 75699

Hal:

I have heard others describe them (tv 75/300 baluns) as a normal, albeit small, toroid--I don't know, would have to get some and open 'em up--sounds to me like all sorts of designs could be being used....

But, if you look at the end of a binocular core, it does indeed have a outline much line a figure 8... however, all I have ever heard 'em called is binocular cores.... I have "duplicated" this design with two toroids, side by side before (and winding through "one side" of each independent core, touching at a "side" on each toroid--kinda hard to describe), and seemed to work for my purposes--but since I haven't seen anyone else doing it--so wouldn't recommend it at this point unless you like to experiment... have purchased binocular cores for use in mosfet linears before, they are out there...

Warmest regards,
John
"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:CdPoe.58386$6k7.58283@bignews4.bellsouth.net...
> excuse my inexperience - what do you mean by "binocular core" ?
> is that like a figure-8 ferite core ?
> One that I opened up used a ferrite bar about twice the thickness of a
> toothpick.
>
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:M3woe.264$jb7.32815201@news.sisna.com...
>> I never paid much attention, now that you mention it though, I seen
>> one
>> busted open once... this particular one had a binocular core...
>
>

429. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 04:25:51 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <jfQoe.90$Rv6.10251352@news.sisna.com>
Source record: 75695
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Don't know Cecil, I do remember reading a passage in the bible--I'd never be able to find it again--maybe someone knows it, went something like, "the mind of God appears as a folly to men...", gawd that paraphrasing is bad--something like that anyway...

However, those little people aren't really gone! National Geographic got it wrong, they moved to Ireland, all wear green hats and have pots and pots of gold, live under rainbows (or something like that) and the people call 'em Leprechauns!

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a3c216$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> An ever better question would be, "Who will own it next (steal it
>> next?)" We may thump our chests and cry our greatness--societies
>> have done so before us, I think us fools if we believe we have
>> discovered a society which will not crumble. Now, we may have--I
>> keep an open mind--however, it will be the first if so... and there
>> ARE enemies out there...
>
> Speaking of which - The National Geographic Channel recently
> carried a program about another human species discovery on
> Flores Island. They have been dubbed "Hobbets", averaged 3.5
> ft. in height, were human, but a different species from us.
> They appeared about 60,000 years ago and became extinct
> about 15,000 years ago. Why would God do something like that?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> =----

430. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 04:37:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vmh7a11jl7gadutk3r4ul73vjpitrdvb4h@4ax.com>
Source record: 75693

On Sun, 05 Jun 2005 21:58:06 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>In TV broadcasting reflections from the antenna back to the transmitter will
>be reflected by the transmitter to the antenna and the signal will be
>rebroadcast albeit at somewhat less power.

Hi Hank,

That would pretty much reveal the SWR if we knew, wouldn't it? If
"somewhat less power" was in 1.2:1 ratio, we wouldn't care so much,
but how would the viewer feel about such service?

>Then depending on the length of
>transmission line the viewer may see ghosting.

I think we, or another correspondent and I have dealt with that at one
time. At the time I believe it was called "fringing," not "ghosts."
The difference being that what were called ghosts at the dawn of the
TV era were separated by fractions of an inch rather than fractions of
a mm. As such, ghosts couldn't have been originated by anything
shorter than mile length transmission lines that were poorly
terminated at both ends. Instead, ghosts were actually transmission
path length differentials in a multipath situation.

>In audio I don't know why and I have run my Collins 30S-1 into ladder line
>with a 14 to SWR with no one except me knowing!

Well, if this is meant to be analogous to fringing/ghosting, I suppose
its because a microsecond blur at AF is entirely inaudible. Or are we
speaking of SSTV? However, this begs the question, How did you know?
All the Collins equipment I taught at school didn't come with a SWR
meter. It was wholly unnecessary if you performed the standard
tune-up. Matter of fact, back then the only SWR meter I saw was for
Ham gear. The finals' tank performed every function of matching as
any tuner.

However, with the KWT-6, we did use an external tuner, 180-V1
(although I may have this mixed up with another model), for coax
feedlines. This was more for its automatic feature where the
transmitter could be tuned up with a 50 Ohm load, and the automatic
tuner simply did the job of presenting it with the transformed load.

However, returning to the point of a transmitter rereflecting a
reflection; I know the bare KWT-6 into ladder line employs its tank to
protect its final tubes. Without that safeguard, I have seen plates
melt - something no one here wants to call dissipation lest it be

evidence of an internal resistance. The bare tubes with their native very hi Z would rereflect like nothing else - and this begs the observation - how could you get original any power out of them, past the tremendous mismatch? The tuner/final tank comes back into the equation, and rereflection goes out the window as a property of the transmitter and returns to the domain of matching.

If anyone wants to constrain the entire crusade of the rereflecting transmitter to the tube set feeding ladder line - then feel free to do so. However, I don't think I've ever seen a mobile tube rig feeding ladder line - no doubt one day I will. We will probably talk about efficiency. :-)

73's
Richard Clark, KB7QHC

431. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 05:23:11 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-7705BC.22231105062005@news.newsguy.com>
Source record: 75694
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <3UMoe.68$6D2.6898782@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> You provoke the argument, then begin telling me what I am doing and
> whether I will do it or not... your model of debate is indeed a strange
> one...

Once again, you just typed something that makes no sense whatsoever.

> ... you have but one choice, if you don't like my posts, don't read the
> damn things... I certainly will be mortally wounded--but trust me--I'll
> get over it...

I have several choices. I'm going to stick with the one where I call
you an idiot when you act like one.

Tony

432. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 05:46:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <LqRoe.98$fr7.10935444@news.sisna.com>
Source record: 75696
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

We should be able to agree on this... we have nothing left to discuss...
and I don't want to consume any more of your genius, I am sure others
await your enlightenment...

... have a nice day...

Warmest regards,
John
"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-7705BC.22231105062005@news.newsguy.com...
> In article <3UMoe.68$6D2.6898782@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> You provoke the argument, then begin telling me what I am doing and
>> whether I will do it or not... your model of debate is indeed a
>> strange
>> one...
>
>
> Once again, you just typed something that makes no sense whatsoever.
>
>
>
>
>> ... you have but one choice, if you don't like my posts, don't read
>> the
>> damn things... I certainly will be mortally wounded--but trust
>> me--I'll
>> get over it...
>
>
> I have several choices. I'm going to stick with the one where I call
> you an idiot when you act like one.
>
> Tony

433. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 06:00:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d80oppalu1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75698

"Cecil Moore" says -

> There's no such thing as a 100% efficient tuner.
==========
>
Cecil, not a very surprising statement.
There's nothing which is 100% efficient.

What is the typical efficiency of a typical tuner with a typical
antenna.
Does it differ significantly from 100% ?
Yes or no?

Reg.

434. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 06:30:40 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-13CD09.23304005062005@news.newsguy.com>
Source record: 75701
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <LqRoe.98$fr7.10935444@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> We should be able to agree on this... we have nothing left to discuss...
> and I don't want to consume any more of your genius, I am sure others
> await your enlightenment...
>
> ... have a nice day...
>
> Warmest regards,
> John

By all means go type some more drivel about Leprechauns or something.
And if I continue to notice that you're being a moron, I'll damn well
say so.

Warmest piss,
Tony

435. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 06:46:14 UTC
From: wcb <wbarwell@mylinuxisp.com>
Message-ID: <11a7rts8hpe117c@corp.supernews.com>
Source record: 75700
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil Moore wrote:

> wcb wrote:
>> No, at that time Texas was open sea.
>
> If 8749 foot Guadalupe Peak was under water, then so
> was most of the rest of the US.

Much of it was all the way up to Nebraska.

--

When I shake my killfile, I can hear them buzzing!

Cheerful Charlie

436. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 07:40:49 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <56Toe.3131$jS3.2311@newsfe2-win.ntli.net>
Source record: 75702

$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Cecil Moore" says -
>
> > There's no such thing as a 100% efficient tuner.
> ==========
> >
> Cecil, not a very surprising statement.
> There's nothing which is 100% efficient.
>
> What is the typical efficiency of a typical tuner with a typical
> antenna.
> Does it differ significantly from 100% ?
> Yes or no?
> ----
> Reg.

Well, at the risk of David going into conflict with the Goliaths of the newsgroups, I would reckon that a tuner (matcher ?) must be a pretty efficient device as it doesn't get very warm from wasting energy as heat - or perhaps my aerials are a reasonably good match and the tuner isn't doing any / much work. Also a tuner, I would suggest, is a fairly useful bit of kit in that it enables the transmitter to see the sort of load it wants to and allows it to deliver more power to the antenna system without the internal protection devices limiting the power it produces (to avoid self destruction) even if not all arrives at the antenna.......

Is this a fairly correct understanding of what is going on, Reg / Cecil ?

Nick

437. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 09:40:52 UTC
From: nm5k@wt.net
Message-ID: <1118050852.031013.91690@g47g2000cwa.googlegroups.com>
Source record: 75703

However, I don't think I've ever seen a mobile tube rig feeding
ladder line - no doubt one day I will. We will probably talk about
efficiency. :-)

It was done in 1936.
http://web.wt.net/~nm5k/mobile36.jpg
Cover pix from a 1936 QST...Forgot
what month...
But I still think I prefer coax...
Their "ladder line" looked to be a twisted wire feeder.
The call on that vehicle was W9MSY...
With the short feedline run on a mobile,
even coax is pretty low loss...
I never used an SWR meter when I was a
novice...I had an old viking valiant that would
tune nearly anything...You didn't need a meter...
You just loaded it up to full plate current and went
with it...My TS 830 is like that to a lesser extent..
If it loads within the loading range, it's good nuff...
No point in even putting a meter on it...Adding a
tuner, would just add some loss...MK

438. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 09:59:57 UTC
From: Bill Putney <bptn@kinez.net>
Message-ID: <d816uo$n9e$1@news.isdn.net>
Source record: 75704
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil Moore wrote:
> Bill Putney wrote:
>
>> Wait a minute - back the truck up. I thought the Injuns didn't
>> believe in ownership of property. So if they didn't own it, how could
>> anyone steal it from them? Riddle me that.
>
>
> Possession is 90% of ownership?

So that was their belief? I don't think so.

Bill Putney
(To reply by e-mail, replace the last letter of the alphabet in my
adddress with the letter 'x')

439. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 10:05:11 UTC
From: Bill Putney <bptn@kinez.net>
Message-ID: <d8178h$nf2$1@news.isdn.net>
Source record: 75705
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
Bill Putney wrote:

> Cecil Moore wrote:
>
>> Bill Putney wrote:
>>
>>> Wait a minute - back the truck up. I thought the Injuns didn't
>>> believe in ownership of property. So if they didn't own it, how
>>> could anyone steal it from them? Riddle me that.
>>
>>
>>
>> Possession is 90% of ownership?
>
>
> So that was their belief? I don't think so.

Or perhaps you mean after we took it.

Bill Putney
(To reply by e-mail, replace the last letter of the alphabet in my
adddress with the letter 'x')
```

440. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 11:31:32 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-0606050731320001@jbw-mac.itd.nrl.navy.mil>
Source record: 75706

In article <jzuoe.940$KQ2.679@trnddc08>, "puns" <puns@verizon.net> wrote:

> Are those small 300/75 ohm tv baluns. voltage or current type?

Hello, and these broadband 4:1 (impedance ratio) baluns most often are voltage type using two transformers. At the lower end of the operating frequency band the balun appears as a 4:1 autotransformer while at higher frequencies the transformer windings appear as transmission lines (ideally each line would have a Zo of 150 ohms). FWIW, the broadband operation of these types of devices were initially described in detail in C.L Ruthroff's 1959 IRE paper, "Some Broadband RF Transformers." Sincerely,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

441. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 12:25:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a441af$1_1@spool9-west.superfeed.net>
Source record: 75707

Roy Lewallen wrote:
> (*) Anybody fond of the notion that reverse power "goes" somewhere or
> gets dissipated in the source or re-reflected back needs to come to
> grips with this problem before building further on the flawed model of
> bouncing waves of flowing power.

Roy, none of my textbook authors think the reflection model
is flawed. Walter Johnson goes so far as to assert that there
is a Poynting (Power Flow Vector) for forward power and a
separate Poynting Vector for reflected power. The sum of those
two Power Flow Vectors is the net Poynting Vector.

Here's my earlier thought example again.

100w----one second long lossless feedline----load, rho=0.707

SWR = (1+rho)/(1-rho) = 5.828:1
Source is delivering 100 watts (joules/sec)
Forward power is 200 watts (joules/sec)
Reflected power is 100 watts (joules/sec)
Load is absorbing 100 watts (joules/sec)

It can easily be shown that 300 joules of energy have been
generated that have not been delivered to the load, i.e.
those 300 joules of energy are stored in the feedline.
The 300 joules of energy are stored in RF waves which
cannot stand still and necessarily travel at the speed of
light. TV ghosting can be used to prove that the reflected
energy actually makes a round trip to the load and back.
A TDR will indicate the same thing.

Choosing to use a net energy shortcut doesn't negate the
laws of physics.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

442. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 12:43:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a445f4$1_2@spool9-west.superfeed.net>
Source record: 75708

Reg Edwards wrote:

>> Chuck Olson wrote:
>>> The tuner doesn't reduce efficiency - -

> "Cecil Moore" says -
>>There's no such thing as a 100% efficient tuner.
>
> Cecil, not a very surprising statement.
> There's nothing which is 100% efficient.
> What is the typical efficiency of a typical tuner with a typical
> antenna. Does it differ significantly from 100% ? Yes or no?

Some ARRL publication said the losses in a tuner average about
0.5 dB. If true, a tuner indeed reduces efficiency by about 12%.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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443. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 12:47:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a446b0$1_1@spool9-west.superfeed.net>
Source record: 75709

nick smith wrote:
> Is this a fairly correct understanding of what is going on, Reg / Cecil ?

Yep, Nick, all I was doing was taking a tongue-in-cheek poke
at the idea that "The tuner doesn't reduce efficiency."
--
73, Cecil http://www.qsl.net/w5dxp

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444. FA: SECRETS OF RF CIRCUIT DESIGN - A TAB Book - Hams - Amateur Radio - Etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 12:55:18 UTC
From: "Dale M." <dale@makosw99so.com>
Message-ID: <060620050855183682%dale@makosw99so.com>
Source record: 75710
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4554813453

445. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 13:08:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <MVXoe.2$YJ3.223377@news.sisna.com>
Source record: 75713
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony:

You may do as you darn well please without creating any problem to
myself--unlike you, I am not a control freak into personal attacks upon
others for feelings of my own self-worth or entertainment... sometime in
the future you may, or may not, be able to understand the value in such
a philosophy... as far as what your personal opinions are--I could care
less... perhaps you will find others here who do...

Warmest regards,
John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-13CD09.23304005062005@news.newsguy.com...
> In article <LqRoe.98$fr7.10935444@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> We should be able to agree on this... we have nothing left to
>> discuss...
>> and I don't want to consume any more of your genius, I am sure others
>> await your enlightenment...
>>
>> ... have a nice day...
>>
>> Warmest regards,
>> John
>
>
>
> By all means go type some more drivel about Leprechauns or something.
> And if I continue to notice that you're being a moron, I'll damn well
> say so.
>
> Warmest piss,
> Tony

446. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 13:34:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d81jde$j4n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75712

```
> >
> > "Cecil Moore" says -
> >
> > > There's no such thing as a 100% efficient tuner.
> > ==================================
> > >
> > Cecil, not a very surprising statement.
> > There's nothing which is 100% efficient.
> >
> > What is the typical efficiency of a typical tuner with a typical
> > antenna.
> > Does it differ significantly from 100% ?
> > Yes or no?
> > ----
> > Reg.
>
>
> Well, at the risk of David going into conflict with the Goliaths of
the
> newsgroups, I would reckon that a tuner (matcher ?) must be a pretty
efficient
> device as it doesn't get very warm from wasting energy as heat - or
perhaps my
> aerials are a reasonably good match and the tuner isn't doing any /
much work.
> Also a tuner, I would suggest, is a fairly useful bit of kit in that
it enables
> the transmitter to see the sort of load it wants to and allows it to
deliver
> more power to the antenna system without the internal protection
devices
> limiting the power it produces (to avoid self destruction) even if
not all
> arrives at the antenna.......
>
> Is this a fairly correct understanding of what is going on, Reg /
Cecil ?
>
> Nick
>
==================================

Nick, your response indicates a 'perfect' understanding of what goes
on inside tuner boxes. If it runs cold or cool with 100 watts there's
```

nothing to worry about.

Most Guru's over-exaggerate the importance of tuner losses. But in a practical case they never state what the efficiency actually is. Such omissions illustrate their ignorance of the subject.

From the frequency of occurrence at which 'tuner loss' appears in these columns, novices and even experienced amateurs can gain the frightening impression that tuner loss is the most serious loss in the system and is to be avoided at all costs, even to the extent of dispensing with the tuner.

In answer to my own question, the efficiency of a typical tuner when used with a typical antenna does not differ significantly from 100 percent. Even if it is as poor as 90% this corresponds to an undetectable loss in signal strength of 0.5dB or 1/13 of an S-unit. Less than the thickness of the S-meter needle. So forget it.

Reg, G4FGQ

447. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 13:35:25 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnda8k8t.eg0.bit-bucket@shell.config.com>
Source record: 75711

On Mon, 06 Jun 2005 07:31:32 -0400, J. B. Wood wrote:
> In article <jzuoe.940$KQ2.679@trnddc08>, "puns" <puns@verizon.net> wrote:
>
>> Are those small 300/75 ohm tv baluns. voltage or current type?
>
> Hello, and these broadband 4:1 (impedance ratio) baluns most often are
> voltage type using two transformers. ... ...

Only the 'quality' ones. I've seen too many that were simply
resistor bridges. More like a 6dB insertion loss per leg than
the 'ideal' 3dB loss in a quality transformer-built version.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

448. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 13:43:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a453ff$1_2@spool9-west.superfeed.net>
Source record: 75714

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> (*) Anybody fond of the notion that reverse power "goes" somewhere or
>> gets dissipated in the source or re-reflected back needs to come to
>> grips with this problem before building further on the flawed model of
>> bouncing waves of flowing power.
>
> Roy, none of my textbook authors think the reflection model
> is flawed. Walter Johnson goes so far as to assert that there
> is a Poynting (Power Flow Vector) for forward power and a
> separate Poynting Vector for reflected power. The sum of those
> two Power Flow Vectors is the net Poynting Vector.

Sorry, I misquoted there. Walter Johnson doesn't say anything
about Poynting Vectors. The above is from: "Fields and Waves ..."
by Ramo, Whinnery, and Van Duzer, page 350, where they assert:

Pz-/Pz+ = |rho|^2

The reflected power Poynting Vector divided by the forward
power Poynting Vector equals the power reflection coefficient.
--
73, Cecil http://www.qsl.net/w5dxp

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449. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:00:47 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <jGYoe.290668$cg1.140568@bgtnsc04-news.ops.worldnet.att.net>
Source record: 75715

Cecil,

I will presume that your reference to Walter Johnson is with regard to his book, "Transmission Lines and Networks", published in 1950.

I have been unable to find any mention of Poynting Vectors or Power Flow Vectors in my copy.

Would you be so kind as to identify the page number(s) describing these concepts?

73,
Gene
W4SZ

Cecil Moore wrote:

[snip]

> Roy, none of my textbook authors think the reflection model
> is flawed. Walter Johnson goes so far as to assert that there
> is a Poynting (Power Flow Vector) for forward power and a
> separate Poynting Vector for reflected power. The sum of those
> two Power Flow Vectors is the net Poynting Vector.

[snip]

450. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:03:08 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <BFYoe.41969$NZ1.12762@fe09.lga>
Source record: 75716

My point was that some languages have different underpinnings than others and these help define the boundaries of the languages. No amount of #defines will allow a C compiler to provide subroutines with full access to the main program symbol table. (Making all variables external (in the C program) could accomplish this, but would be unreasonable for many other reasons.) There really are differences in languages beyond the obvious syntax differences.

I tend to measure languages (and programmers) by their maintainability, measured in decades. Possibly one my most important business actions was helping kill application development in APL.

Of course, IMHO, anything worth writing is done is assembly language --- but that is a different debate.

Bill
W2WO

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Wf%ne.35$Uz.953388@news.sisna.com...
> Bill:
>
> I actually do not stand at complete odds with you...
> However, "C" can be viewed as a "superset" of assembly...
> Or, assembly can be viewed as a subset of "C"...
> I am aware of no "C" compiler which refuses to accept assembly language
> instructions--as standard... I am aware you might have to set compiler
> directives to allow or disallow this as you see fit...
> For one who declared, right from the start, that religious wars on
> syntax are exactly what I wish to avoid... I seem drawn like a moth to a
> flame (or something like that)...
> However, since we have gotten here, to this point, let me go further, if
> I would choose to write in COBOL syntax--I would still keep my "C"
> compiler and linker---and, would use the #define and statement, and
> macros in "C" to remap all of the COBOL syntax I would use, to "C"....
> I could then go about my merry business and write in "COBOL", when the
> "C" compiler seen the source, it would translate on the fly and produce
> "C" object code...
> if I was not aware of what had been done--I could honestly be left
> thinking I was truly using a legit COBOL compiler/linker, I could do
> the same with pascal--even basic should I choose... attempt to do the
> reverse with those languages and you will see failure...
>
> ... in my humble, personal opinion, you can develop a million more
> syntax's, I am just left to sit and wonder why...

>
> Warmest regards,
> John
>
> "Bill Ogden" <wogden@attglobal.net> wrote in message
> news:EG_ne.39164$NZ1.19002@fe09.lga...
> >I have done assembly language programming on many platforms, from 1620s
> >to
> > Intel to zSeries. (The most fun was the 7090 series; the least fun
> > was
> > Intel.) The concept of assembly programming to obtain the last ounce
> > of
> > performance is becoming questionable, at least on mainframes. Best
> > performance, when considering superscalar operation, pipelining, cache
> > boundaries, and virtual memory translation boundaries (TLBs on
> > mainframes)
> > no longer involves straightforward instruction streams, but needs to
> > interleave all these other consderations that are definitely not
> > intuitive
> > to an assembly programmer. Well-written compilers can usually do a
> > better
> > job. Of course, the compiler (or optimizer that follows the compiler)
> > must
> > be very well adjusted to the hardware that will execute the program.
> >
> > I am not a COBOL programmer. However, I do appreciate a few
> > attributes of
> > COBOL. For example,
> >
> > - It allows creation of in-program "subroutines" with full access
> > to the
> > program's symbol table. (I.e., use the PERFORM verb.) Very few other
> > languages (other than assembler, of course) allow this.
> > - It deals with strings as primitive elements, something the C does
> > not
> > do. When running on hardware (such as mainframes) that also deals
> > with
> > strings as basic elements, this allows for much more straightforward
> > use of
> > the instruction set. (The requirement for C programs to frequently
> > chase
> > the end of character arrays to deal with strings, and the common need
> > to
> > reserve a character (x'00') to mark the end of a string, has always
> > seemed
> > rather primitive to me. Of course, it was needed on the hardware used
> > for
> > early C---it is unfortunate that the language never progressed past
> > this
> > hardware design limitation.)

> > -The average COBOL program is almost certainly easier to maintain
> > (years
> > later, by another programmer) than the average C program. Of course,
> > one
> > can write obscure code in any language or wonderfully clear code in
> > any
> > language, but I am speaking of existing, average code. (The extreme
> > example
> > in this category was APL. Even the original programmer could often not
> > understand his own code after being away from it for a few months. It
> > was a
> > wonderful, powerful language, but the average program was utterly
> > unmaintainable in typical production environments (in my opinion).)
> >
> > I have noticed that major applications written in C (or C++) appear to
> > consume considerably more processor power and considerably more memory
> > than
> > applications written in COBOL (or assembler, or PLI, or Fortran). A
> > 1MB
> > application in COBOL is "large" while a 1MB application in C is almost
> > "trivial". I know a lot of this is due to the inclusion Windows
> > libraries
> > (DLLs), etc, etc, and the different nature of the applications.
> >
> > There is seldom a winner in religious "discussions" and I suspect this
> > thread is about to die.
> >
> > Bill
> > W2WO
> >
> >
>
>

451. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:15:26 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <4UYoe.9$YA4.300164@news.sisna.com>
Source record: 75717

Bill:

Too be perfectly frank with you, all who I have ever seen argue syntax
simply can't program--that doesn't mean they don't think they can...
If you find a programmer who is having difficulty maintaining C, I think
you will find he/she has difficulty maintaining any syntax...
C can simply do all of the other languages combined--at its first
creation by dennis ritchie it was "all powerful." Since that time many
have posed arguments of why it should be limited--they even go to the
extreme of attempting to hide these attacks on the language in
"standards", so far all these attempts have failed--thank gawd...

Warmest regards,
John
"Bill Ogden" <wogden@attglobal.net> wrote in message
news:BFYoe.41969$NZ1.12762@fe09.lga...
> My point was that some languages have different underpinnings than
> others
> and these help define the boundaries of the languages. No amount of
> #defines will allow a C compiler to provide subroutines with full
> access to
> the main program symbol table. (Making all variables external (in the
> C
> program) could accomplish this, but would be unreasonable for many
> other
> reasons.) There really are differences in languages beyond the
> obvious
> syntax differences.
>
> I tend to measure languages (and programmers) by their
> maintainability,
> measured in decades. Possibly one my most important business actions
> was
> helping kill application development in APL.
>
> Of course, IMHO, anything worth writing is done is assembly
> language --- but
> that is a different debate.
>
> Bill
> W2WO
>
>
>
>

> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:Wf%ne.35$Uz.953388@news.sisna.com...
>> Bill:
>>
>> I actually do not stand at complete odds with you...
>> However, "C" can be viewed as a "superset" of assembly...
>> Or, assembly can be viewed as a subset of "C"...
>> I am aware of no "C" compiler which refuses to accept assembly
>> language
>> instructions--as standard... I am aware you might have to set
>> compiler
>> directives to allow or disallow this as you see fit...
>> For one who declared, right from the start, that religious wars on
>> syntax are exactly what I wish to avoid... I seem drawn like a moth
>> to a
>> flame (or something like that)...
>> However, since we have gotten here, to this point, let me go further,
>> if
>> I would choose to write in COBOL syntax--I would still keep my "C"
>> compiler and linker---and, would use the #define and statement, and
>> macros in "C" to remap all of the COBOL syntax I would use, to
>> "C"....
>> I could then go about my merry business and write in "COBOL", when
>> the
>> "C" compiler seen the source, it would translate on the fly and
>> produce
>> "C" object code...
>> if I was not aware of what had been done--I could honestly be left
>> thinking I was truly using a legit COBOL compiler/linker, I could do
>> the same with pascal--even basic should I choose... attempt to do the
>> reverse with those languages and you will see failure...
>>
>> ... in my humble, personal opinion, you can develop a million more
>> syntax's, I am just left to sit and wonder why...
>>
>> Warmest regards,
>> John
>>
>> "Bill Ogden" <wogden@attglobal.net> wrote in message
>> news:EG_ne.39164$NZ1.19002@fe09.lga...
>> >I have done assembly language programming on many platforms, from
>> >1620s
>> >to
>> > Intel to zSeries. (The most fun was the 7090 series; the least fun
>> > was
>> > Intel.) The concept of assembly programming to obtain the last
>> > ounce
>> > of
>> > performance is becoming questionable, at least on mainframes. Best
>> > performance, when considering superscalar operation, pipelining,

>> > cache
>> > boundaries, and virtual memory translation boundaries (TLBs on
>> > mainframes)
>> > no longer involves straightforward instruction streams, but needs
>> > to
>> > interleave all these other consderations that are definitely not
>> > intuitive
>> > to an assembly programmer. Well-written compilers can usually do a
>> > better
>> > job. Of course, the compiler (or optimizer that follows the
>> > compiler)
>> > must
>> > be very well adjusted to the hardware that will execute the
>> > program.
>> >
>> > I am not a COBOL programmer. However, I do appreciate a few
>> > attributes of
>> > COBOL. For example,
>> >
>> > - It allows creation of in-program "subroutines" with full
>> > access
>> > to the
>> > program's symbol table. (I.e., use the PERFORM verb.) Very few
>> > other
>> > languages (other than assembler, of course) allow this.
>> > - It deals with strings as primitive elements, something the C
>> > does
>> > not
>> > do. When running on hardware (such as mainframes) that also deals
>> > with
>> > strings as basic elements, this allows for much more
>> > straightforward
>> > use of
>> > the instruction set. (The requirement for C programs to frequently
>> > chase
>> > the end of character arrays to deal with strings, and the common
>> > need
>> > to
>> > reserve a character (x'00') to mark the end of a string, has always
>> > seemed
>> > rather primitive to me. Of course, it was needed on the hardware
>> > used
>> > for
>> > early C---it is unfortunate that the language never progressed past
>> > this
>> > hardware design limitation.)
>> > -The average COBOL program is almost certainly easier to
>> > maintain
>> > (years
>> > later, by another programmer) than the average C program. Of

>> > course,
>> > one
>> > can write obscure code in any language or wonderfully clear code in
>> > any
>> > language, but I am speaking of existing, average code. (The
>> > extreme
>> > example
>> > in this category was APL. Even the original programmer could often
>> > not
>> > understand his own code after being away from it for a few months.
>> > It
>> > was a
>> > wonderful, powerful language, but the average program was utterly
>> > unmaintainable in typical production environments (in my opinion).)
>> >
>> > I have noticed that major applications written in C (or C++) appear
>> > to
>> > consume considerably more processor power and considerably more
>> > memory
>> > than
>> > applications written in COBOL (or assembler, or PLI, or Fortran).
>> > A
>> > 1MB
>> > application in COBOL is "large" while a 1MB application in C is
>> > almost
>> > "trivial". I know a lot of this is due to the inclusion Windows
>> > libraries
>> > (DLLs), etc, etc, and the different nature of the applications.
>> >
>> > There is seldom a winner in religious "discussions" and I suspect
>> > this
>> > thread is about to die.
>> >
>> > Bill
>> > W2WO
>> >
>> >
>>
>>
>
>

452. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:23:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a45d4e$1_2@spool9-west.superfeed.net>
Source record: 75718

Gene Fuller wrote:

> Cecil,
>
> I will presume that your reference to Walter Johnson is with regard to
> his book, "Transmission Lines and Networks", published in 1950.
>
> I have been unable to find any mention of Poynting Vectors or Power Flow
> Vectors in my copy.
>
> Would you be so kind as to identify the page number(s) describing these
> concepts?

Gene,
My next posting admitted my senility. I was quoting Ramo & Whinnery,
not Walter Johnson. In "Fields and Waves in Communication Electronics",
page 325, an equation is given for Pz+, "The Poynting vector for the
positive traveling wave ...". It continues: "Similarly, the Poynting
vector for the negatively traveling wave is always in the negative 'z'
direction except when it is zero."

On page 350 it gives the ratio of the forward Poynting vector to the
rearward Poynting vector as the power reflection coefficient. Sorry
for my faulty memory.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

453. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:35:02 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <d81up9$k5f$1@news.service.uci.edu>
Source record: 75630

John Smith wrote:

> might just work, if the total element length is 1 wave! and in a dipole
> configuration...

You're thinking too far outside the box. Reel it back in a smidge. :-)

ac6xg

454. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:41:59 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <YgZoe.9072$5u4.29875@nnrp1.uunet.ca>
Source record: 75719

[Excuse the valiant attempt at restoring sane bottom-posting style to
this thread]

<kashe@sonic.net> wrote in message
> news:f527a1p12989usuu0p5bl0o8r91ibu6m8d@4ax.com...
[...]
>>>>On 01/06/2005 6:03 PM, John Smith wrote:
>>>>>> If you do not trust your programmers, you will limit them with their
>>>>>> language--I guess I am luckily I still have a position where all
>>>>>> which
>>>>>> matters is our results and the department head is a strong
>>>>>> programmer
>>>>>> with acceptable backbone... the coding dept here is looked upon as
>>>>>> a
>>>>>> blackbox, you hand us specs, we give you working code... if all
>>>>>> goes
>>>>>> well, no complaints... no one second guess you...
>>> And no one to competently review your code to verify that it
>>> does exactly what the specs say and not a whit more. God willing, your
>>> shop never gets within shooting distance of my checking account or
>>> life support system.
[...]
On 05/06/2005 8:29 PM, John Smith wrote:
> Ahhh, "...who watches the watchers....?"
> And, "... how can we ever release this code, there still might be one
> error in the 30,000 pages of well documented source... ?"
> ... questions to which there are many answers...
>
Code reviews are not absolutes. The notion is to have many eyes staring
at something so that, as a group, they can spot problems and pitfalls.
Sometimes we aren't even talking about errors. It's important in a
large product to organize components and interfaces and such in a
sensible manner, and sometimes someone will point out where you can
refactor or where you are "reaching around" to a software component you
shouldn't be accessing directly. Code reviews can take many forms, as
well. Most of the time it is just water-cooler talk when working on a
problem, and then a reviewer or two before changes are committed.

Bigger projects almost require a weekly sit-down with dead-tree version
of the code in front of you.

There will always be errors in software. The idea is to use the tools
and protocols appropriate for the task and application to help minimize
the errors and to control the effect of the errors over time.

The enterprise software business depends to some extent on something called "SCM" (Source Code Management) or "ALM" (Application Lifecycle Management) to manage change to critical business systems over time. The "black box" method you talk about is fine, but only as long as there are internal processes guiding decisions about how code is changed for any reason.

Failure to do so will result, eventually, in tears and recrimination. I've seen it and I've lived it.

Generally, any company that makes software knows that that software is it's greatest and most important asset. Managing that asset is what what I've been driving at, and what (I think) "kashe" was hinting at, as well.

Really, for any large software project there is one simple rule: Every time a developer makes significant changes without some sort of code review, God kills a kitten.

-- cm

455. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 14:55:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d81o4f$6gt$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75720

Reliability of computer programs is the most important attribute.

The concept of MTBF, Mean Time Between Failures, can be applied to
software.

Does anyone disagree?

456. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:05:43 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <bDZoe.323$%j7.53@newssvr11.news.prodigy.com>
Source record: 75721

Hi Richard
Please tell me more about melting the finals and a bit more explanation of
what was happening?
tnx
Hank
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:vmh7a11jl7gadutk3r4ul73vjpitrdvb4h@4ax.com...
> On Sun, 05 Jun 2005 21:58:06 GMT, "Henry Kolesnik"
> <kolesnik@sbcglobal.net> wrote:
>
>>In TV broadcasting reflections from the antenna back to the transmitter
>>will
>>be reflected by the transmitter to the antenna and the signal will be
>>rebroadcast albeit at somewhat less power.
>
> Hi Hank,
>
> That would pretty much reveal the SWR if we knew, wouldn't it? If
> "somewhat less power" was in 1.2:1 ratio, we wouldn't care so much,
> but how would the viewer feel about such service?
>
>>Then depending on the length of
>>transmission line the viewer may see ghosting.
>
> I think we, or another correspondent and I have dealt with that at one
> time. At the time I believe it was called "fringing," not "ghosts."
> The difference being that what were called ghosts at the dawn of the
> TV era were separated by fractions of an inch rather than fractions of
> a mm. As such, ghosts couldn't have been originated by anything
> shorter than mile length transmission lines that were poorly
> terminated at both ends. Instead, ghosts were actually transmission
> path length differentials in a multipath situation.
>
>>In audio I don't know why and I have run my Collins 30S-1 into ladder line
>>with a 14 to SWR with no one except me knowing!
>
> Well, if this is meant to be analogous to fringing/ghosting, I suppose
> its because a microsecond blur at AF is entirely inaudible. Or are we
> speaking of SSTV? However, this begs the question, How did you know?
> All the Collins equipment I taught at school didn't come with a SWR
> meter. It was wholly unnecessary if you performed the standard
> tune-up. Matter of fact, back then the only SWR meter I saw was for
> Ham gear. The finals' tank performed every function of matching as
> any tuner.

>
> However, with the KWT-6, we did use an external tuner, 180-V1
> (although I may have this mixed up with another model), for coax
> feedlines. This was more for its automatic feature where the
> transmitter could be tuned up with a 50 Ohm load, and the automatic
> tuner simply did the job of presenting it with the transformed load.
>
> However, returning to the point of a transmitter rereflecting a
> reflection; I know the bare KWT-6 into ladder line employs its tank to
> protect its final tubes. Without that safeguard, I have seen plates
> melt - something no one here wants to call dissipation lest it be
> evidence of an internal resistance. The bare tubes with their native
> very hi Z would rereflect like nothing else - and this begs the
> observation - how could you get original any power out of them, past
> the tremendous mismatch? The tuner/final tank comes back into the
> equation, and rereflection goes out the window as a property of the
> transmitter and returns to the domain of matching.
>
> If anyone wants to constrain the entire crusade of the rereflecting
> transmitter to the tube set feeding ladder line - then feel free to do
> so. However, I don't think I've ever seen a mobile tube rig feeding
> ladder line - no doubt one day I will. We will probably talk about
> efficiency. :-)
>
> 73's
> Richard Clark, KB7QHC

457. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:07:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a467a9$1_1@spool9-west.superfeed.net>
Source record: 75722

Roy Lewallen wrote:
> Anyone who's interested can find more interesting cases in "Food for
> thought - Forward and Reverse Power.txt" at
> http://eznec.com/misc/food_for_thought/. And those who aren't
> interested, well, you're welcome to believe what you choose. Just don't
> look too closely at the evidence.
>
> (*) Anybody fond of the notion that reverse power "goes" somewhere or
> gets dissipated in the source or re-reflected back needs to come to
> grips with this problem before building further on the flawed model of
> bouncing waves of flowing power.

Roy, I have had an article for review into QEX for more than two
months that explains what is missing from your analysis. Unfortunately,
I have not heard a word from QEX since I submitted the article.

So I will introduce a concept new to the field of RF but completely
understood in the field of optics. I actually introduced this concept
three years ago in discussions on r.r.a.a with Dr. Best but I was
apparently unable to convey the concept.

If I ask you what things can cause 100% reflection, I assume you would
list three things: 1. A short-circuit, 2. An open-circuit, and
3. A pure reactance. And that is indeed true for loads upon which a
single wave is incident.

But the field of optics recognizes an additional thing that can cause
100% reflection and that's wave cancellation. If two coherent EM waves
are traveling the same path in the same direction in a transmission
line and they are 180 degrees out of phase, the waves will cancel and
the energy components in the two waves, which must be conserved, will
be 100% reflected in the opposite direction. The following two optics
web pages verify that fact for EM waves: (near the bottom of the pages)

http://www.mellesgriot.com/products/optics/oc_2_1.htm

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html

What is happening in your "food for thought" assertions is that you
are neglecting the ability of the phenomenon of wave cancellation to
cause 100% reflection of the energy components in the two canceled
waves, something that is well understood in the field of optics.
Dr. Best also neglected to take interference energy into account in
his QEX article on transmission lines.

"Optics", by Hecht asserts that for every incidence of constructive interference there must be an equal magnitude of destructive interference to satisfy the conservation of energy principle. (That is unless the source itself is capable of delivering extra power.) By the same token, if the source doesn't absorb constructive interference energy, it must go somewhere else. In a transmission line with only two directions, there is only one other way it can possibly go and it becomes a reflection or a re-reflection.

What is happening in your "food for thought" examples is that destructive interference/wave cancellation between the forward wave and reflected wave is occurring at your source. That wave cancellation event is feeding constructive interference energy back into the feedline which joins the forward wave energy. Your discussions ignore the effect of interference energy which must necessarily be conserved.

Your argument goes something like this: I am ignoring the constructive/destructive interference energy involved in wave cancellation. Therefore, it never existed in the first place. That's a petitio principii type of argument.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

458. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:27:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p3q8a11o3q2l1akv86ch9gde1lrmt2m1rr@4ax.com>
Source record: 75723

On 6 Jun 2005 02:40:52 -0700, nm5k@wt.net wrote:

> However, I don't think I've ever seen a mobile tube rig feeding
>ladder line - no doubt one day I will. We will probably talk about
>efficiency. :-)
>
>It was done in 1936.
>http://web.wt.net/~nm5k/mobile36.jpg
>Cover pix from a 1936 QST...Forgot
>what month...
>But I still think I prefer coax...
>Their "ladder line" looked to be a twisted wire feeder.
>The call on that vehicle was W9MSY...

Hi Mark,

Hmmm, the picture's kinda small, and the line looks like coax - or
maybe close ladder line. I will take your word for it as it makes my
track record for accuracy complete. :-)

Well, almost complete. Is the guy holding his pinkie to the radiator
measuring efficiency?

As a sidebar, the police were working 160M mobile back then too.
Seems coax was hardly an off-the-shelf item. Think they used ladder
line too? More probably direct feed.

73's
Richard Clark, KB7QHC

459. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:35:37 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <e3_oe.15$PW7.703607@news.sisna.com>
Source record: 75625

A million programmers can look at source and miss a very simple error, a million professional computer users can use the application and never discover the error in code--let one computer illiterate dummy have the keyboard and an immediate crash occurs...

You keep large data files of previous errors which are known and simulate real world entry of such "garbage" to the application, in debugging you literally toss everything but the kitchen sink (well, maybe that too) at the development project from tons of "error generating data files"... you exercise its dynamically created buffers and constructs with endless streams of junk, a lot randomized... you attempt everyway possible to break the running of the application--as time goes by you get better at this testing... if it passes all this on multiple high speed machines testing for endless hours/days--you then release it for beta testing--if you have done the testing well, there will be few reports of errors from beta testers... then the computer illiterates get their turn...

Warmest regards,
John
"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message
news:YgZoe.9072$5u4.29875@nnrp1.uunet.ca...
> [Excuse the valiant attempt at restoring sane bottom-posting style to
> this thread]
>
> <kashe@sonic.net> wrote in message
>> news:f527a1p12989usuu0p5bl0o8r91ibu6m8d@4ax.com...
> [...]
>>>>>On 01/06/2005 6:03 PM, John Smith wrote:
>>>>>>> If you do not trust your programmers, you will limit them with
>>>>>>> their
>>>>>>> language--I guess I am luckily I still have a position where
>>>>>>> all
>>>>>>> which
>>>>>>> matters is our results and the department head is a strong
>>>>>>> programmer
>>>>>>> with acceptable backbone... the coding dept here is looked
>>>>>>> upon as
>>>>>>> a
>>>>>>> blackbox, you hand us specs, we give you working code... if
>>>>>>> all
>>>>>>> goes
>>>>>>> well, no complaints... no one second guess you...
>>>> And no one to competently review your code to verify that it
>>>> does exactly what the specs say and not a whit more. God willing,

>>>> your
>>>> shop never gets within shooting distance of my checking account or
>>>> life support system.
> [...]
> On 05/06/2005 8:29 PM, John Smith wrote:
>> Ahhh, "...who watches the watchers....?"
>> And, "... how can we ever release this code, there still might be one
>> error in the 30,000 pages of well documented source... ?"
>> ... questions to which there are many answers...
>>
> Code reviews are not absolutes. The notion is to have many eyes
> staring
> at something so that, as a group, they can spot problems and pitfalls.
> Sometimes we aren't even talking about errors. It's important in a
> large product to organize components and interfaces and such in a
> sensible manner, and sometimes someone will point out where you can
> refactor or where you are "reaching around" to a software component
> you
> shouldn't be accessing directly. Code reviews can take many forms, as
> well. Most of the time it is just water-cooler talk when working on a
> problem, and then a reviewer or two before changes are committed.
>
> Bigger projects almost require a weekly sit-down with dead-tree
> version
> of the code in front of you.
>
> There will always be errors in software. The idea is to use the tools
> and protocols appropriate for the task and application to help
> minimize
> the errors and to control the effect of the errors over time.
>
> The enterprise software business depends to some extent on something
> called "SCM" (Source Code Management) or "ALM" (Application Lifecycle
> Management) to manage change to critical business systems over time.
> The "black box" method you talk about is fine, but only as long as
> there
> are internal processes guiding decisions about how code is changed for
> any reason.
>
> Failure to do so will result, eventually, in tears and recrimination.
> I've seen it and I've lived it.
>
> Generally, any company that makes software knows that that software is
> it's greatest and most important asset. Managing that asset is what
> what I've been driving at, and what (I think) "kashe" was hinting at,
> as
> well.
>
> Really, for any large software project there is one simple rule: Every
> time a developer makes significant changes without some sort of code

> review, God kills a kitten.
>
> -- cm

460. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:42:38 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d822sqndl1@news.service.uci.edu>
Source record: 75636

Cecil Moore wrote:

> Roy, none of my textbook authors think the reflection model
> is flawed. Walter Johnson goes so far as to assert that there
> is a Poynting (Power Flow Vector) for forward power and a
> separate Poynting Vector for reflected power. The sum of those
> two Power Flow Vectors is the net Poynting Vector.
>
> Here's my earlier thought example again.
>
> 100w----one second long lossless feedline----load, rho=0.707
>
> SWR = (1+rho)/(1-rho) = 5.828:1
> Source is delivering 100 watts (joules/sec)
> Forward power is 200 watts (joules/sec)
> Reflected power is 100 watts (joules/sec)
> Load is absorbing 100 watts (joules/sec)
>
> It can easily be shown that 300 joules of energy have been
> generated that have not been delivered to the load, i.e.
> those 300 joules of energy are stored in the feedline.

Not easy if t < 2 sec. :-)

> The 300 joules of energy are stored in RF waves which
> cannot stand still and necessarily travel at the speed of
> light.

It's ironic that the first paramater cited in the problem starts with an
'S'. :-)

> TV ghosting can be used to prove that the reflected
> energy actually makes a round trip to the load and back.
> A TDR will indicate the same thing.

If either source were monochromatic, I bet I could come up with an
example where the surfaces reflect no energy. :-)

> Choosing to use a net energy shortcut doesn't negate the
> laws of physics.

Particular when characterized as a matter of opinion, it can be like
having a religious discussion.

73 ac6xg

461. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:45:09 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <9c_oe.17$HV.960640@news.sisna.com>
Source record: 75724

"AYE Reg!!!"

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d81o4f$6gt$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Reliability of computer programs is the most important attribute.
>
> The concept of MTBF, Mean Time Between Failures, can be applied to
> software.
>
> Does anyone disagree?
>
>

462. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 15:58:13 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <po_oe.3975$jS3.2948@newsfe2-win.ntli.net>
Source record: 75626

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d81jde$j4n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> > >
> > > "Cecil Moore" says -
> > >
> > > > There's no such thing as a 100% efficient tuner.
> > > > ==================================
> > > >
> > > Cecil, not a very surprising statement.
> > > There's nothing which is 100% efficient.
> > >
> > > What is the typical efficiency of a typical tuner with a typical
> > > antenna.
> > > Does it differ significantly from 100% ?
> > > Yes or no?
> > > ----
> > > Reg.
> >
> >
> > Well, at the risk of David going into conflict with the Goliaths of
> the
> > newsgroups, I would reckon that a tuner (matcher ?) must be a pretty
> efficient
> > device as it doesn't get very warm from wasting energy as heat - or
> perhaps my
> > aerials are a reasonably good match and the tuner isn't doing any /
> much work.
> > Also a tuner, I would suggest, is a fairly useful bit of kit in that
> it enables
> > the transmitter to see the sort of load it wants to and allows it to
> deliver
> > more power to the antenna system without the internal protection
> devices
> > limiting the power it produces (to avoid self destruction) even if
> not all
> > arrives at the antenna.......
> >
> > Is this a fairly correct understanding of what is going on, Reg /
> Cecil ?
> >
> > Nick
> >
> ==================================
>

> Nick, your response indicates a 'perfect' understanding of what goes
> on inside tuner boxes. If it runs cold or cool with 100 watts there's
> nothing to worry about.
>
> Most Guru's over-exaggerate the importance of tuner losses. But in a
> practical case they never state what the efficiency actually is. Such
> omissions illustrate their ignorance of the subject.
>
> From the frequency of occurrence at which 'tuner loss' appears in
> these columns, novices and even experienced amateurs can gain the
> frightening impression that tuner loss is the most serious loss in the
> system and is to be avoided at all costs, even to the extent of
> dispensing with the tuner.
>
> In answer to my own question, the efficiency of a typical tuner when
> used with a typical antenna does not differ significantly from 100
> percent. Even if it is as poor as 90% this corresponds to an
> undetectable loss in signal strength of 0.5dB or 1/13 of an S-unit.
> Less than the thickness of the S-meter needle. So forget it.
> ----
> Reg, G4FGQ
>

Well, I was actually pretty sure I was right, but its good to have it confirmed
and hope
this was useful to others in their understanding or otherwise of the job a
tuner (matcher) does.

Thanks Gentlemen,

Nick

463. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 16:00:44 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-5B2A29.09004306062005@news.newsguy.com>
Source record: 75629
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <MVXoe.2$YJ3.223377@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> Tony:
>
> You may do as you darn well please without creating any problem to
> myself--unlike you, I am not a control freak into personal attacks upon
> others for feelings of my own self-worth or entertainment...

You just called me "a control freak into personal attacks upon others
for feelings of my own self-worth or entertainment". this is, of course,
a personal attack you just made.

Do you think before you type?

Tony

464. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 16:10:29 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Vz_oe.903268$w62.383555@bgtnsc05-news.ops.worldnet.att.net>
Source record: 75627

Cecil,

You can't be serious!

This is basic stuff found in virtually any intermediate level E&M textbook.

The treatment is generally the same; start with the field equations describing the waves, add the material conditions and the boundary conditions, plug and crank. The answers pop right out. No need to invoke any magic incantations about interfering waves or wave cancellation. The interference is the result of the analysis, not the cause.

In the classical case, there is absolutely no difference in behavior between "RF" and "optical". The material properties for every situation can vary, but the physical principles do not.

Sooo, rather than introducing a new concept, you are perhaps the last person to finally understand the old one.

73,
Gene
W4SZ

Cecil Moore wrote:

[snip}
>
> So I will introduce a concept new to the field of RF but completely
> understood in the field of optics. I actually introduced this concept
> three years ago in discussions on r.r.a.a with Dr. Best but I was
> apparently unable to convey the concept.
>
> If I ask you what things can cause 100% reflection, I assume you would
> list three things: 1. A short-circuit, 2. An open-circuit, and
> 3. A pure reactance. And that is indeed true for loads upon which a
> single wave is incident.
>
> But the field of optics recognizes an additional thing that can cause
> 100% reflection and that's wave cancellation. If two coherent EM waves
> are traveling the same path in the same direction in a transmission
> line and they are 180 degrees out of phase, the waves will cancel and
> the energy components in the two waves, which must be conserved, will
> be 100% reflected in the opposite direction. The following two optics
> web pages verify that fact for EM waves: (near the bottom of the pages)
>
> http://www.mellesgriot.com/products/optics/oc_2_1.htm
>

> http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index.html
>
>
> What is happening in your "food for thought" assertions is that you
> are neglecting the ability of the phenomenon of wave cancellation to
> cause 100% reflection of the energy components in the two canceled
> waves, something that is well understood in the field of optics.
> Dr. Best also neglected to take interference energy into account in
> his QEX article on transmission lines.
>
> "Optics", by Hecht asserts that for every incidence of constructive
> interference there must be an equal magnitude of destructive
> interference to satisfy the conservation of energy principle. (That
> is unless the source itself is capable of delivering extra power.)
> By the same token, if the source doesn't absorb constructive
> interference energy, it must go somewhere else. In a transmission
> line with only two directions, there is only one other way it can
> possibly go and it becomes a reflection or a re-reflection.
>
> What is happening in your "food for thought" examples is that
> destructive interference/wave cancellation between the forward wave
> and reflected wave is occurring at your source. That wave cancellation
> event is feeding constructive interference energy back into the
> feedline which joins the forward wave energy. Your discussions
> ignore the effect of interference energy which must necessarily
> be conserved.
>
> Your argument goes something like this: I am ignoring the
> constructive/destructive interference energy involved in wave
> cancellation. Therefore, it never existed in the first place.
> That's a petitio principii type of argument.

465. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 16:15:55 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <q4q8a1dcn8aq9op9jbd4f7cpnl043lrq8b@4ax.com>
Source record: 75628

On Mon, 06 Jun 2005 07:40:49 GMT, "nick smith" <NickS@ntlworld.com>
wrote:

>$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>>
>> "Cecil Moore" says -
>>
>> > There's no such thing as a 100% efficient tuner.
>> ==================================
>> >
>> Cecil, not a very surprising statement.
>> There's nothing which is 100% efficient.
>>
>> What is the typical efficiency of a typical tuner with a typical
>> antenna.
>> Does it differ significantly from 100% ?
>> Yes or no?
>> ----
>> Reg.
>
>
>Well, at the risk of David going into conflict with the Goliaths of the
>newsgroups, I would reckon that a tuner (matcher ?) must be a pretty efficient
>device as it doesn't get very warm from wasting energy as heat - or perhaps my
>aerials are a reasonably good match and the tuner isn't doing any / much work.

Let me refer to you to this link:

http://users.triconet.org/wesandlinda/ladder.htm

and suggest that you also follow the imbedded link to my letter to
Dean.

There you will find an analysis if what tuner losses can be.

But let's also answer this issue of "It doesn't get hot, so it must
not be lossy."

First let's say that, unless the op is a real blabbermouth, the
transmit duty cycle will be 50%. Transmit half the time, listen half
the time.

If the op is on CW then the duty cycle of the transmit cycle is ~44%.
(The standard word "PARIS" sent repeatedly with 1:3:7 spacing. So for
CW operation, the overall duty cycle is .5 * .44 = 22%.

On SSB it's more complicated. Without speech processing, the peak to average ratio is variously given, but 14:1 (11.5 dB) is typical. Most rigs have some form of speech compression or clipping these days (most used to excess). Really effective clippers, (ahem)

http://users.triconet.org/wesandlinda/s_proc.pdf

can improve this quite a bit so let's say that it's 6 dB. So the average power is 6 dB below the peak or 25% of the peak. Our overall duty cycle is .5 * .25 = 12.5%

Of course the digital modes and FM are full carrier so the duty cycle is 50%. Not many using FM on hf where tuners are the norm, the PSK guys pride themselves on QRP, which leaves only the special case RTTY contesters running full power.

So back to the guy running 100 W CW through a tuner driving a ladder line fed antenna. If his tuner burns up half of the power will it get hot? Are 11 W (22% of 50) going to smoke most components? What if the tuner loss is 6 dB? The average power dissipation climbs to a whopping 16.5 W. (22% of 75) Is this a big thermal management issue?

Certainly, KW rigs running RTTY are going to be a bigger concern, but the tuners (and component parts) are commensurately bigger and can dissipate more power without "getting hot".

466. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 16:51:49 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6dd5a$42a47f2c$438df3df$12470@ALLTEL.NET>
Source record: 75631

Now I understand, the "blue screen of death" is my MTBF indicator. Wow!

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d81o4f$6gt$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Reliability of computer programs is the most important attribute.
>
> The concept of MTBF, Mean Time Between Failures, can be applied to
> software.
>
> Does anyone disagree?
>
>

467. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 17:18:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p5r8a19nkon19v0v012b5ch9vl33gvr8jf@4ax.com>
Source record: 75632

On Mon, 06 Jun 2005 15:05:43 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>Please tell me more about melting the finals and a bit more explanation of
>what was happening?

Hi Hank,

Direct observation offered a glowing plasma between the filament and
the plate. It was football shaped rather than beam-like or an
amorphous cloud. One point of the football touched the cherry red
plate. Following a quick power-down, that point on the plate did not
exist anymore as there was a hole. Couldn't really tell, but no doubt
the grid suffered just as much in its own way.

I suppose plates have become more robust over the years since that
amazing demonstration. I helped fix one friend's Amp when it failed
along with his antenna (or t'other way round as the chain of causality
would suggest). His Amp simply quit working suddenly during bad
weather. Fuses checked - OK. No interlocks were open - OK. The tube
looked good at a glance - OK. HV Supply looked good - OK. The
filaments failed to light up - odd, but consistent. Time to crack
open the case. Pulled the tube and measured its filament continuity -
OK. Measured filament supply - OK. Things were really getting
strange. Time to bust the chassis open and really look. There on the
baseplate were several small pools of solder in a circular pattern -
how odd. Close scrutiny of connections revealed bright and soldered
wires to everything - OK. Time to look at the tube again. Every pin
was solder free - that was on the chassis base plate. [dirge played
here] The filaments' wires were making enough contact to measure
continuity, but no where enough to support real power.

In other tubes I've seen the heat become so extreme that the glass
envelope slumped into the vacuum and enclosed the plate structure like
taffy. This didn't even crack the glass (or it had simply re-fused).
Tube still worked afterwards though (so I would suppose the glass
never cracked). One occasion was actually due to a bias problem
created when the cathode load shorted. Lack of bias protection sent
the circuit into massive conduction. Of course the short came about
because of an initial excessive conduction (surprising in its own
right because the common failure mode is to open).

I've also seen stressed thyratrons so mismatched that they filled the
workspace with their purple glow like a floodlight. Thankfully fuses
work as I did not want to be near that final testimony.

Now, that was the short list of Bottle failures. I have another list of melted state failures too, but their evidence is usually better hidden and less dramatic - heat sinking generally spreads the risk, so to speak. And speaking of heat sinks, I've drawn a number of blisters from those that normally only warmed my hand. Note there should be emphasis on normally warm and the obvious contradiction with blisters.

Experience with failure has strongly correlated with heat and mismatch. Heat was born by resistance. Resistance is part of life and amplifiers. Heat comes in two forms. Slow-like, which is generally current based; and sudden, which is generally voltage based. I've felt along heatsinks immediately following failure that were as cool/tepid as usual, or ominously cooler! The sudden heat of arc-over in silicon can destroy just as effectively as the long slow broil of a plate turning to slag.

Every mismatch in the Amateur experience is a probablistic spin of the wheel of misfortune. Sometimes the wheel stops on the slow bake that aborbs into heatsinks and you notice unusual smell, or your fan running on too long - Quick! do something, and you survive. Other times there's the snap of finality. Both of these examples are for those with keen senses, and often failure comes as a whimper.

Most suffers usually discover what matching is for, even if they don't know how it works.

73's
Richard Clark, KB7QHC

468. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 17:19:56 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <1B%oe.21$W%3.1483927@news.sisna.com>
Source record: 75638

Jim:

Well, I have found terminology interesting. And, depends on whose you use, there is ARRL of course, then there are a bunch of in-house tech docs from industry.

Take what I have been accustomed to calling a 1/2 wave monopole--for example: on 10 meters, it is about a 16 foot metal length and end fed. An EFHWA. Most frequently fed through an L-Match or 1/4 wave matching section--sometimes uniquely though an unun.

However, if you attempt to feed it in the middle, it suddenly becomes a dipole, the equiv of two 8 ft-1/4 wave monopoles connected at there bases, and would take a unique feed I am not familiar with, as each 1/4 wave section would need be fed out of phase--and this would be difficult with the impedance so close to the feedline (coax in this case) and having the 1/4 monopoles connected (notice, I didn't say impossible! <grin>.)

Spilt the 1/2 monopole and center feed it and it becomes two 1/4 wave monopoles (commonly referred to as a 1/2 wave dipole) and can be center fed with convention means quite easily, as a dipole (indeed, many feed them directly from coax--the more picky through a isolation balun or 1/4 wave section.)

However, two 1/2 monopoles, connected at their bases (actually a 1 wave length single element) begins to accept center feeding with quite conventional means (ant feed point is high impedance), although in ARRL literature this would be referred to as 1 wave dipole, still it could be modeled as two 1/2 wave monopoles being fed out of phase.

All I am concentrating on is the EFHWA (and, if setup right requires no counterpoise), and various means of feeding it, modifications and experiments...

Warmest regards,
John
"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:d81up9$k5f$1@news.service.uci.edu...
>
>
> John Smith wrote:
>
>> might just work, if the total element length is 1 wave! and in a
>> dipole configuration...
>

> You're thinking too far outside the box. Reel it back in a smidge.
> :-)
>
> ac6xg
>
>
>

469. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 17:22:54 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <OD%oe.22$f%3.1476760@news.sisna.com>
Source record: 75639
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

not an attack, a statement of fact in my opinion...

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-5B2A29.09004306062005@news.newsguy.com...
> In article <MVXoe.2$YJ3.223377@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> Tony:
>>
>> You may do as you darn well please without creating any problem to
>> myself--unlike you, I am not a control freak into personal attacks
>> upon
>> others for feelings of my own self-worth or entertainment...
>
>
> You just called me "a control freak into personal attacks upon others
> for feelings of my own self-worth or entertainment". this is, of
> course,
> a personal attack you just made.
>
> Do you think before you type?
>
> Tony

470. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 17:37:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a48ace$1_2@spool9-west.superfeed.net>
Source record: 75633

Gene Fuller wrote:
> Cecil, You can't be serious!
> This is basic stuff found in virtually any intermediate level E&M textbook.

If you can provide me with a reference that says, wave cancellation can cause reflection of the canceled waves, I will be eternally grateful. I have been able to find references that imply such for light waves, but I have not found one that comes right out and says it for either light waves or RF waves.

I agree with you 100%. I had this "basic stuff" taught to me at Texas A&M half a century ago. But Roy's "food for thought" stuff completely ignores exactly that "basic stuff" concerning constructive/destructive interference. Nowhere in his arguments is "interference" even mentioned. I expect him to respond that interference is irrelevant. Dr. Best went so far as to deny that interference is necessary for a Z0-match to occur in a system with reflections. That was around May/June 2001 on this very newsgroup for anyone who wants to Google it.

I have been fighting this battle for three years on this newsgroup. Now you say it's "basic stuff". I've agreed for three years, but where have you been all this time?

> The treatment is generally the same; start with the field equations
> describing the waves, add the material conditions and the boundary
> conditions, plug and crank. The answers pop right out. No need to invoke
> any magic incantations about interfering waves or wave cancellation. The
> interference is the result of the analysis, not the cause.

Some people have forgotten what they learned in college. Their net/steady-state shortcuts have become reality and scrambled their brains. You are obviously not one of the people at whom I aimed my remarks. I am glad to see that not everyone has been seduced into thinking that interference is irrelevant.

> In the classical case, there is absolutely no difference in behavior
> between "RF" and "optical". The material properties for every situation
> can vary, but the physical principles do not.

I know that. You know that. We are on the same side. Now convince the RF gurus of that. Roy calculated the net power at the source and assumed from that figure that there was not enough energy available to support the energy in reflected waves.

> Sooo, rather than introducing a new concept, you are perhaps the last
> person to finally understand the old one.

No, not the last one. What you say is exactly what is wrong with
Roy's arguments that reflected energy doesn't flow from the load
back toward the source. I am NOT introducing a new concept. I am
introducing a new (or forgotten) concept to some of the RF gurus
on this newsgroup. I am (re)introducing destructive/constructive
interference concepts to Roy, Dr. Best, and others.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

471. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 17:43:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a48c3b$1_2@spool9-west.superfeed.net>
Source record: 75634

Richard Clark wrote:
> Every mismatch in the Amateur experience is a probablistic spin of the
> wheel of misfortune. Sometimes the wheel stops on the slow bake that
> aborbs into heatsinks ...

Current maximum, Ifor+Iref in phase. Vtot = |Vfor|-|Vref|

> Other times there's the snap of finality.

Voltage maximum, Vfor+Vref in phase. Itot = |Ifor|-|Iref|
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

472. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 17:56:38 UTC
From: fmmck@aol.com
Message-ID: <fmmck-0606051356390001@ac92bd89.ipt.aol.com>
Source record: 75635
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

In article <icHoe.9607$U_2.1496@trnddc06>, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

> My question relates to my wondering if the TV satellite dish is a parabola
> with the horn feed offset away from the focal point.

Jerry-

I understand there is a class of unsymmetric antenna where the feed is
actually at the focal point, but the reflecting surface is only a side
section of the whole parabola. Although it is physically "offset", it
functions as a parabolic antenna.

Fred

473. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 18:10:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a94cbhhc1ta3a@corp.supernews.com>
Source record: 75637

In my third example, where does the other 10 watts of reflected power go? If it goes to the load and back, why does it reflect off the source resistor?

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> (*) Anybody fond of the notion that reverse power "goes" somewhere or
>> gets dissipated in the source or re-reflected back needs to come to
>> grips with this problem before building further on the flawed model of
>> bouncing waves of flowing power.
>
>
> Roy, none of my textbook authors think the reflection model
> is flawed. Walter Johnson goes so far as to assert that there
> is a Poynting (Power Flow Vector) for forward power and a
> separate Poynting Vector for reflected power. The sum of those
> two Power Flow Vectors is the net Poynting Vector.
> . . .

474. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 18:21:53 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <d82cmv$1p7$1@news.service.uci.edu>
Source record: 75661

I could be wrong, but here's what I was getting at. You should be able to vary the feedpoint impedance, where ever the feedpoint happens to be (in this case, the end), by varying the distance between the attachment points of the two conductors of the feedline. The closer they are together, naturally, the lower the impedance. It should be possible to find a match in this way. Part B would be to keep the feedline from trying to radiate.

ac6xg

John Smith wrote:

> Jim:
>
> Well, I have found terminology interesting. And, depends on whose you
> use, there is ARRL of course, then there are a bunch of in-house tech
> docs from industry.
>
> Take what I have been accustomed to calling a 1/2 wave monopole--for
> example: on 10 meters, it is about a 16 foot metal length and end fed.
> An EFHWA. Most frequently fed through an L-Match or 1/4 wave matching
> section--sometimes uniquely though an unun.
>
> However, if you attempt to feed it in the middle, it suddenly becomes a
> dipole, the equiv of two 8 ft-1/4 wave monopoles connected at there
> bases, and would take a unique feed I am not familiar with, as each 1/4
> wave section would need be fed out of phase--and this would be difficult
> with the impedance so close to the feedline (coax in this case) and
> having the 1/4 monopoles connected (notice, I didn't say impossible!
> <grin>.)
>
> Spilt the 1/2 monopole and center feed it and it becomes two 1/4 wave
> monopoles (commonly referred to as a 1/2 wave dipole) and can be center
> fed with convention means quite easily, as a dipole (indeed, many feed
> them directly from coax--the more picky through a isolation balun or 1/4
> wave section.)
>
> However, two 1/2 monopoles, connected at their bases (actually a 1 wave
> length single element) begins to accept center feeding with quite
> conventional means (ant feed point is high impedance), although in ARRL
> literature this would be referred to as 1 wave dipole, still it could be
> modeled as two 1/2 wave monopoles being fed out of phase.
>
> All I am concentrating on is the EFHWA (and, if setup right requires no
> counterpoise), and various means of feeding it, modifications and

> experiments...
>
> Warmest regards,
> John
> "Jim Kelley" <jwkelley@uci.edu> wrote in message
> news:d81up9$k5f$1@news.service.uci.edu...
>
>>
>>John Smith wrote:
>>
>>
>>>might just work, if the total element length is 1 wave! and in a
>>>dipole configuration...
>>
>>You're thinking too far outside the box. Reel it back in a smidge.
>>:-)
>>
>>ac6xg
>>
>>
>>
>
>
>

475. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 18:28:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <np49a1hneqmjh2p8rcadspjvnincp41kl4@4ax.com>
Source record: 75640

On Mon, 6 Jun 2005 14:55:11 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The concept of MTBF, Mean Time Between Failures, can be applied to
>software.
>
>Does anyone disagree?

Hi Reg,

Of course. MTBF is more apropos to linear systems. For digital
hardware, failure is dominated by either infant mortality, or old age.
Very rarely is there a problem in between.

As for software, any notion of time is utterly ridiculous. Any
operation that successfully performed once will ALWAYS perform
identically every time again. There is no such thing as a time
between failures such that the software will be reliable in between.
That would be spooky beyond superstition.

The best that you can expect from software is that if it is simple
enough, you can trust it to do the same thing again - a Brit by the
name of Alan Turing proved this some 60 years ago. Turing also
offered there is no way to guarantee a program will work, unless you
are willing to watch it for as long as it was running. For a quick
reference, google Turing and Enigma machine.

73's
Richard Clark, KB7QHC

476. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 18:32:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a95l9ajs2p408@corp.supernews.com>
Source record: 75641

I don't see anything on those web pages that's outside the concept of the ordinary interference of waves, i.e., that they add and subtract where they occupy the same space. I don't at all see the concept of a wave of flowing average energy being bounced back or about by another wave, which is what you're proposing as you have many times in the past. But then, many people find miracles when I see only coincidence, so I'm a bit deficient in that regard.

This topic has been previously discussed beyond a tedious degree in this newsgroup; anyone interested can find it via groups.google.com. I don't have anything to add to it, with the exception of this question which is relevant to the topic:

Does your analysis produce the result of 2.3 dB loss claimed by H. for a 1.7:1 SWR?

Best luck with your QEX article. I look forward to reading it.

Roy Lewallen, W7EL

Cecil Moore wrote:
>
>
> Roy, I have had an article for review into QEX for more than two
> months that explains what is missing from your analysis. Unfortunately,
> I have not heard a word from QEX since I submitted the article.
>
> So I will introduce a concept new to the field of RF but completely
> understood in the field of optics. I actually introduced this concept
> three years ago in discussions on r.r.a.a with Dr. Best but I was
> apparently unable to convey the concept.
>
> If I ask you what things can cause 100% reflection, I assume you would
> list three things: 1. A short-circuit, 2. An open-circuit, and
> 3. A pure reactance. And that is indeed true for loads upon which a
> single wave is incident.
>
> But the field of optics recognizes an additional thing that can cause
> 100% reflection and that's wave cancellation. If two coherent EM waves
> are traveling the same path in the same direction in a transmission
> line and they are 180 degrees out of phase, the waves will cancel and
> the energy components in the two waves, which must be conserved, will
> be 100% reflected in the opposite direction. The following two optics
> web pages verify that fact for EM waves: (near the bottom of the pages)
>
> http://www.mellesgriot.com/products/optics/oc_2_1.htm

>
> http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index.html
>
> . . .

477. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 18:38:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a961ogq4umj74@corp.supernews.com>
Source record: 75642

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil, You can't be serious!
>> This is basic stuff found in virtually any intermediate level E&M
>> textbook.
>
>
> If you can provide me with a reference that says, wave cancellation can
> cause reflection of the canceled waves, I will be eternally grateful.
> I have been able to find references that imply such for light waves,
> but I have not found one that comes right out and says it for either
> light waves or RF waves.
> . . .

I'm afraid that your difficulty in finding a reference is simply due to its not being so.

If it is indeed so, it appears that your forthcoming QEX article will be a seminal work, as the first published work to explicitly state that this phenomenon indeed happens (outside of countless newsgroup postings to that effect). Assuming you understand the physics which causes it to happen, I'd think that a professional publication would be a much more appropriate forum than QEX for such an important work. Have you tried any of the IEEE publications?

Roy Lewallen, W7EL

478. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 18:52:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a96r631artb86@corp.supernews.com>
Source record: 75643

Reg Edwards wrote:
> Reliability of computer programs is the most important attribute.
>
> The concept of MTBF, Mean Time Between Failures, can be applied to
> software.
>
> Does anyone disagree?

I do. It's a much too simplistic concept. "Failure" can be a bug which requires a second mouse click when only one should be needed, one which causes a critical output value to be wrong by an amount that's serious but not obvious, one which causes a plane to crash or a bridge to fall, or anywhere in a continuum between them. It's shortsighted and can be badly misleading to lump these vastly different flaws together into a single quantity "failure".

Even if you did adopt this terribly simplified model of failure, the mean time (presumably in user-hours for typical desktop computer software) between "failures" depends very heavily on the user and how he uses the sofware.

While it might be a useful concept for some small class of programs which perform a small set of tasks, I'd consider any stated number for MTBF for most typical desktop programs as simply a fabrication of the marketing department. It could be made to be pretty much whatever they choose it to be.

Roy Lewallen, W7EL

479. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:04:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a97ikg78ema4a@corp.supernews.com>
Source record: 75644

redhat wrote:
> Hello All,
> should the antenna ground be connected to the transmitter circuit
> ground? i saw a microstrip antenna that has only a feed pad but no
> ground pad .
> Regards
>
The short answer is yes. But such a connection isn't usually infinitesimally short, so current will flow along the path and the path will become part of the antenna and radiate.

An antenna is a circuit, and like any circuit it has two terminals. Our calling one of these "ground" doesn't give it any special or magical properties -- it's simply one of the two connections. However much current flows into one of the antenna terminals must flow out of the other. If we connect, for example, a piece of coax from a transmitter to an antenna and connect only the center conductor to the antenna, then the outside of the coax becomes the other half of the antenna. If one amp flows into the antenna, one amp flows along the outside of the coax shield. This would be the case for the microstrip antenna you describe, if you're really describing it accurately.

Follow the current from the "hot" side of the transmitter to the feedline, along the feedline to the "antenna", back from the other terminal of the "antenna" to the "ground" side of the transmitter. Anywhere the current is flowing right beside an equal current going in the other direction (to simplify a bit), like it does on the inside of a coaxial cable, there won't be any significant radiation. But anywhere a current is flowing where there isn't a very nearby, opposite current, the conductor is actually part of the antenna and will radiate.

Roy Lewallen, W7EL

480. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:06:13 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c9594$42a49eac$438df3df$15175@ALLTEL.NET>
Source record: 75645

Let's put this an easier way, how many of you have a low pass filter in line. Most manufacturers claim a .25dB or less insertion loss. These filters consist of a boat load of coils and caps.

A tuner normally has 2 varible caps and a single silver plated coil.

While any device indeed has loss, here we are picking fly crap out of pepper.

> Let me refer to you to this link:
>
> http://users.triconet.org/wesandlinda/ladder.htm
>
> and suggest that you also follow the imbedded link to my letter to
> Dean.
>
> There you will find an analysis if what tuner losses can be.
>
> But let's also answer this issue of "It doesn't get hot, so it must
> not be lossy."
>
> First let's say that, unless the op is a real blabbermouth, the
> transmit duty cycle will be 50%. Transmit half the time, listen half
> the time.
>
> If the op is on CW then the duty cycle of the transmit cycle is ~44%.
> (The standard word "PARIS" sent repeatedly with 1:3:7 spacing. So for
> CW operation, the overall duty cycle is .5 * .44 = 22%.
>
> On SSB it's more complicated. Without speech processing, the peak to
> average ratio is variously given, but 14:1 (11.5 dB) is typical. Most
> rigs have some form of speech compression or clipping these days (most
> used to excess). Really effective clippers, (ahem)
>
> http://users.triconet.org/wesandlinda/s_proc.pdf
>
> can improve this quite a bit so let's say that it's 6 dB. So the
> average power is 6 dB below the peak or 25% of the peak. Our overall
> duty cycle is .5 * .25 = 12.5%
>
> Of course the digital modes and FM are full carrier so the duty cycle
> is 50%. Not many using FM on hf where tuners are the norm, the PSK
> guys pride themselves on QRP, which leaves only the special case RTTY
> contesters running full power.

>
> So back to the guy running 100 W CW through a tuner driving a ladder
> line fed antenna. If his tuner burns up half of the power will it get
> hot? Are 11 W (22% of 50) going to smoke most components? What if
> the tuner loss is 6 dB? The average power dissipation climbs to a
> whopping 16.5 W. (22% of 75) Is this a big thermal management issue?
>
> Certainly, KW rigs running RTTY are going to be a bigger concern, but
> the tuners (and component parts) are commensurately bigger and can
> dissipate more power without "getting hot".
>
>
>

481. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:12:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4a108$1_2@spool9-west.superfeed.net>
Source record: 75646

Roy Lewallen wrote:
> Does your analysis produce the result of 2.3 dB loss claimed by H.
> for a 1.7:1 SWR?

Cheap friggin' damn shot, Roy, after my posting where I disagreed
with H. and agreed with your calculations.
--
73, Cecil http://www.qsl.net/w5dxp

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482. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:16:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a987rqle4a6cd@corp.supernews.com>
Source record: 75647

Cecil Moore wrote:
> . . .
> What is happening in your "food for thought" assertions is that you
> are neglecting the ability of the phenomenon of wave cancellation to
> cause 100% reflection of the energy components in the two canceled
> waves, something that is well understood in the field of optics.
> Dr. Best also neglected to take interference energy into account in
> his QEX article on transmission lines.
> . . .

If I'm neglecting an important phenomenon, then surely some of my numerical results showing voltages, currents, forward, reverse, and total powers, and power dissipation must be incorrect. And an experiment can be set up to demonstrate their incorrectness and the validity of the alleged phenomenon.

I'd appreciate it very much if you or anyone else who finds any incorrect results in that series of essays, or anything else I've written or posted, bring it to my attention so it can be corrected.

Roy Lewallen, W7EL

483. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:21:31 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <%m1pe.9115$5u4.29460@nnrp1.uunet.ca>
Source record: 75648

On 06/06/2005 11:35 AM, John Smith wrote:
> A million programmers can look at source and miss a very simple error, a
> million professional computer users can use the application and never
> discover the error in code--let one computer illiterate dummy have the
> keyboard and an immediate crash occurs...
>
This only addresses "bugs." Everyone ships code with bugs we know about and bugs we don't. Since QA is typically the most expensive part (in terms of man-hours) we might want to minimize bugs as much as possible in the unit-testing phase.

However, this does not address the issues of component scope or design, or refactoring, both of which are critical to maintaining a large project over any serious length of time.

Bugs are the easy part, and they are not strictly why one should have code reviews of some nature.

> You keep large data files of previous errors which are known and
> simulate real world entry of such "garbage" to the application, in
> debugging you literally toss everything but the kitchen sink (well,
> maybe that too) at the development project from tons of "error
> generating data files"... you exercise its dynamically created buffers
> and constructs with endless streams of junk, a lot randomized... you
> attempt everyway possible to break the running of the application--as
> time goes by you get better at this testing... if it passes all this on
> multiple high speed machines testing for endless hours/days--you then
> release it for beta testing--if you have done the testing well, there
> will be few reports of errors from beta testers... then the computer
> illiterates get their turn...
>
Again, test cases are important, as they allow us to test for things we already know about, and help keep changes from introducing regressions. This is, however, only a tiny part of what good software management practices help achieve.

Doing a modest amount of testing from the three classic QA contexts is important:

1. 12-yr old hacker, who wants to break your app for a laugh.
2. Timid 80-yr old grandmother who may not comprehend your UI in any typical manner, nor understand the underlying system enough to figure out how to make your app work.
3. A monkey, who throws garbage and feces at your UI, occasionally powering off the machine in a fit of anger.

At some point all the QA you want is not enough. There will always be bugs that escape QA detection, and code reviews will likely not catch those either.

484. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:31:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4a574$1_1@spool9-west.superfeed.net>
Source record: 75649

Roy Lewallen wrote:

> Cecil Moore wrote:
>
>> Gene Fuller wrote:
>>> Cecil, You can't be serious!
>>> This is basic stuff found in virtually any intermediate level E&M
>>> textbook.

>> If you can provide me with a reference that says, wave cancellation can
>> cause reflection of the canceled waves, I will be eternally grateful.
>> I have been able to find references that imply such for light waves,
>> but I have not found one that comes right out and says it for either
>> light waves or RF waves.
>
> I'm afraid that your difficulty in finding a reference is simply due to
> its not being so.

Well, Gene says it is really basic stuff (not worthy of a second
thought). Which is it? - Not worthy of a second thought or seminal
work?

> If it is indeed so, it appears that your forthcoming QEX article will be
> a seminal work, as the first published work to explicitly state that
> this phenomenon indeed happens (outside of countless newsgroup postings
> to that effect). Assuming you understand the physics which causes it to
> happen, I'd think that a professional publication would be a much more
> appropriate forum than QEX for such an important work. Have you tried
> any of the IEEE publications?

Nope, I haven't. I've retired from being a pro. Now I am just
an amateur.

When two coherent waves traveling in the same path and direction are
180 degrees out of phase, they disappear from existence in that
original direction of travel, i.e. they undergo wave cancellation.
When they are confined to a transmission line with only two directions,
the flow of energy in the original direction ceases. There is no other
choice but for the energy in the two cancelled waves to be conserved
and to reverse direction and start flowing in the opposite direction.
That, my friend, is a reflection. How can you possibly believe that
the energy in cancelled waves is not conserved?

So to your list of shorts, opens, and pure reactances being able to
cause 100% reflection, you can add wave cancellation. Note that wave
cancellation cannot happen at a single load with a single incident

wave. It can only happen at points where there are waves flowing
in opposite directions, e.g. match points on transmission lines with
reflections and at sources subjected to reflections.

Please don't argue that you have never seen such. Anyone who has
looked at an oil film on water has witnessed reflections caused
by interference and wave cancellation.
--
73, Cecil http://www.qsl.net/w5dxp

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485. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:32:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a995lcf6afgff@corp.supernews.com>
Source record: 75650

Unfortunately, simply counting the number of coils and capacitors isn't even an approximate way to judge loss. What counts, mainly, is how much current is flowing in those inductors and how large their wire is (and, if the capacitors have other than air dielectric, perhaps how much voltage is across the capacitors)(*). If you do an analysis of a tuner, you'll find that for a given applied power, the inductor current can vary a huge amount depending on the load impedance. Consequently, the loss can vary a greatly.

Lowpass filters are invariably specified when in a circuit with a fixed, specified impedance load. It's not hard at all to design a lowpass filter which has low loss under that condition. Likewise, it's not hard to design a matching network (tuner) which has low loss when the load isn't too far away from 50 ohms resistive. The trick is to maintain reasonable loss when the impedance transformation is extreme.

Roy Lewallen, W7EL

Fred W4JLE wrote:
> Let's put this an easier way, how many of you have a low pass filter in
> line. Most manufacturers claim a .25dB or less insertion loss. These filters
> consist of a boat load of coils and caps.
>
> A tuner normally has 2 varible caps and a single silver plated coil.
>
> While any device indeed has loss, here we are picking fly crap out of
> pepper.

486. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:34:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4a614$1_1@spool9-west.superfeed.net>
Source record: 75651

Jim Kelley wrote:

> Cecil Moore wrote:
>> It can easily be shown that 300 joules of energy have been
>> generated that have not been delivered to the load, i.e.
>> those 300 joules of energy are stored in the feedline.
>
> Not easy if t < 2 sec. :-)

Of course, my statement is related to steady-state. I don't
see anything worth responding to, Jim. Where's the beef?
--
73, Cecil http://www.qsl.net/w5dxp

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487. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:35:49 UTC
From: Bob Spooner <rls19@psu.edu>
Message-ID: <d828iq$44a$1@f04n12.cac.psu.edu>
Source record: 75652

Actually, the concept is a little different for software. It's called Mean Time To Failure (MTTF) rather than MTBF. The difference is because the bug that causes the failure is already there waiting for the right conditions to show itself rather than being caused by something breaking after having been placed into service. Toward the end of it's operational life the MTTF for IBM's OS360 operating system was on the order of 3000 years. That means that if there were 3000 computer systems using it and they were in operation 24 hours a day seven days a week, a new bug was being detected only once a year.

I don't think software reliability is valued very much these days. For those selling software, time to market seems to be much more important than reliability. For those buying it, price seems to be more important. That's why we have to buy additional antivirus and spy detecting software to protect our computers. A whole new software industry has grown up because we don't require reliability in the software we use.

73,
Bob AD3K

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d81o4f$6gt$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Reliability of computer programs is the most important attribute.
>
> The concept of MTBF, Mean Time Between Failures, can be applied to
> software.
>
> Does anyone disagree?
>
>

488. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:35:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4a685$1_1@spool9-west.superfeed.net>
Source record: 75653

Fred W4JLE wrote:
> Let's put this an easier way, how many of you have a low pass filter in
> line.

Most commercial rigs already meet the FCC spec so
usually no low pass filter is needed.
--
73, Cecil http://www.qsl.net/w5dxp

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489. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:44:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4a887$1_1@spool9-west.superfeed.net>
Source record: 75654

Roy Lewallen wrote:

> If I'm neglecting an important phenomenon, then surely some of my
> numerical results showing voltages, currents, forward, reverse, and
> total powers, and power dissipation must be incorrect.

No, they are not incorrect. They are net values and, as
such, are simply incomplete. Dr. Best had the same problem
in his article which was accurate but incomplete. The
problem with incomplete information is that erroneous
conclusions are likely to occur. In addition to a closed
mind, that's your present problem and Dr. Best's problem
with his QEX article.

Valid data being incomplete can sometimes be just as bad
or worse than data being wrong.
--
73, Cecil http://www.qsl.net/w5dxp

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490. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 19:48:46 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <yM1pe.904278$w62.114050@bgtnsc05-news.ops.worldnet.att.net>
Source record: 75655

Cecil,

I do not expect that the reference you seek can be found.

There is no need to invoke interference or wave cancellation to explain anything, and it is unlikely there is any mathematical formulation that uses interference as one of the input variables.

It is totally unnecessary. Maxwell's equations contain everything needed to accurately describe electromagnetic interactions, including wave reflections, cancellations, and interference.

Any serious treatment of the subject of electromagnetic interactions begins with the field equations, not with the resulting interference. The sort of description found on the Melles-Griot web site and on their CD-ROM is a handwaving, but comforting, description meant for general understanding, not for detailed analysis.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil, You can't be serious!
>> This is basic stuff found in virtually any intermediate level E&M
>> textbook.
>
>
> If you can provide me with a reference that says, wave cancellation can
> cause reflection of the canceled waves, I will be eternally grateful.
> I have been able to find references that imply such for light waves,
> but I have not found one that comes right out and says it for either
> light waves or RF waves.
>
> I agree with you 100%. I had this "basic stuff" taught to me at Texas
> A&M half a century ago. But Roy's "food for thought" stuff completely
> ignores exactly that "basic stuff" concerning constructive/destructive
> interference. Nowhere in his arguments is "interference" even mentioned.
> I expect him to respond that interference is irrelevant. Dr. Best
> went so far as to deny that interference is necessary for a Z0-match to
> occur in a system with reflections. That was around May/June 2001 on
> this very newsgroup for anyone who wants to Google it.
>
> I have been fighting this battle for three years on this newsgroup.

> Now you say it's "basic stuff". I've agreed for three years, but
> where have you been all this time?
>
>> The treatment is generally the same; start with the field equations
>> describing the waves, add the material conditions and the boundary
>> conditions, plug and crank. The answers pop right out. No need to
>> invoke any magic incantations about interfering waves or wave
>> cancellation. The interference is the result of the analysis, not the
>> cause.
>
>
> Some people have forgotten what they learned in college. Their net/
> steady-state shortcuts have become reality and scrambled their brains.
> You are obviously not one of the people at whom I aimed my remarks.
> I am glad to see that not everyone has been seduced into thinking
> that interference is irrelevant.
>
>> In the classical case, there is absolutely no difference in behavior
>> between "RF" and "optical". The material properties for every
>> situation can vary, but the physical principles do not.
>
>
> I know that. You know that. We are on the same side. Now convince the
> RF gurus of that. Roy calculated the net power at the source and
> assumed from that figure that there was not enough energy available
> to support the energy in reflected waves.
>
>> Sooo, rather than introducing a new concept, you are perhaps the last
>> person to finally understand the old one.
>
>
> No, not the last one. What you say is exactly what is wrong with
> Roy's arguments that reflected energy doesn't flow from the load
> back toward the source. I am NOT introducing a new concept. I am
> introducing a new (or forgotten) concept to some of the RF gurus
> on this newsgroup. I am (re)introducing destructive/constructive
> interference concepts to Roy, Dr. Best, and others.

491. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:02:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4acd3$1_1@spool9-west.superfeed.net>
Source record: 75656

Roy Lewallen wrote:
> In my third example, where does the other 10 watts of reflected power
> go? If it goes to the load and back, why does it reflect off the source
> resistor?

I have read the third example, which is NOT steady-state,
and I don't understand the question. Give me some steady-
state values and I will discuss it.

****
However, a reflected wave approaching a source resistor doesn't
encounter the source resistor as an isolated load. The source
voltage superposes with the reflected voltage at that point
which may, in reality, actually turn out to be an impedance
discontinuity.
****

Quoting Ramo and Whinnery: "It must be emphasized, as in any
Thevenin equivalent cirsuit, that the equivalent circuit was
derived to tell what happens in the ***LOAD*** under different
load conditions, and significance cannot be automatically
attached to a calculation of power loss in the internal
impedance of the equivalent circuit."
--
73, Cecil http://www.qsl.net/w5dxp

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492. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:11:48 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <a62pe.35$jd.2196635@news.sisna.com>
Source record: 75658

We have been speaking strictly software, if hardware changes are possible a "driver model" must be adopted, core code should always be able to remain static and functioning independently in regards to these hardware changes--in a perfect world...

With PC's movement between operating systems can be a bit more difficult--movement to linux will generally be expensive in a windows dominated world (most remaining mainframes have well developed transitional models and is cheaply implemented), however since the client obtained the OS for low cost (or no cost) they should be more than able to shoulder the related expenses...

While microsoft has indeed adopted the 80 year old grandmother model you have mentioned in your post--I always recommend ignoring her, some of us prefer to always plan for the 15 year old hacker who gets lucky, and the gorilla...

... your final protection always rests in insurance against claims made by those who have been harmed in using your code/application/utility/etc--and the contract/disclaimer for such--which, as everyone knows, if you make it long enough will never get read, so by all means, make them responsible for everything in its text--personally, I am always tempted to make them responsible for acts of God which may occur while they are using the software--guess that is why they don't let me write them... <grin>

Warmest regards,
John

"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message news:%m1pe.9115$5u4.29460@nnrp1.uunet.ca...
> On 06/06/2005 11:35 AM, John Smith wrote:
>> A million programmers can look at source and miss a very simple
>> error, a
>> million professional computer users can use the application and never
>> discover the error in code--let one computer illiterate dummy have
>> the
>> keyboard and an immediate crash occurs...
>>
> This only addresses "bugs." Everyone ships code with bugs we know
> about
> and bugs we don't. Since QA is typically the most expensive part (in
> terms of man-hours) we might want to minimize bugs as much as possible
> in the unit-testing phase.
>
> However, this does not address the issues of component scope or

> design,
> or refactoring, both of which are critical to maintaining a large
> project over any serious length of time.
>
> Bugs are the easy part, and they are not strictly why one should have
> code reviews of some nature.
>
>> You keep large data files of previous errors which are known and
>> simulate real world entry of such "garbage" to the application, in
>> debugging you literally toss everything but the kitchen sink (well,
>> maybe that too) at the development project from tons of "error
>> generating data files"... you exercise its dynamically created
>> buffers
>> and constructs with endless streams of junk, a lot randomized... you
>> attempt everyway possible to break the running of the application--as
>> time goes by you get better at this testing... if it passes all this
>> on
>> multiple high speed machines testing for endless hours/days--you then
>> release it for beta testing--if you have done the testing well, there
>> will be few reports of errors from beta testers... then the computer
>> illiterates get their turn...
>>
> Again, test cases are important, as they allow us to test for things
> we
> already know about, and help keep changes from introducing
> regressions.
> This is, however, only a tiny part of what good software management
> practices help achieve.
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> important:
>
> 1. 12-yr old hacker, who wants to break your app for a laugh.
> 2. Timid 80-yr old grandmother who may not comprehend your UI in any
> typical manner, nor understand the underlying system enough to figure
> out how to make your app work.
> 3. A monkey, who throws garbage and feces at your UI, occasionally
> powering off the machine in a fit of anger.
>
> At some point all the QA you want is not enough. There will always be
> bugs that escape QA detection, and code reviews will likely not catch
> those either.

493. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:14:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4af9f$1_2@spool9-west.superfeed.net>
Source record: 75657

Gene Fuller wrote:
> There is no need to invoke interference or wave cancellation to explain
> anything, ...

But there is, Gene. It's the only way to correct the present misinformation and old wives' tales being promoted on this newsgroup. It is obvious that the r.r.a.a poster who understands the role that interference plays in the conservation of RF energy is very rare.

There is a conspiracy to keep this information from surfacing - "Nothing new", "no need", "irrelevant", "who cares?" Why are you guys afraid to discuss the technical details?

This should be an easy question to answer. If two coherent waves of 50 joules/sec each, are traveling in the same path in the same direction and are 180 degrees out of phase, they cancel in that direction of travel. What happens to their 50+50 joules/sec? Hint: energy doesn't cancel and there are only two possible directions. Can you spell R-E-F-L-E-C-T-I-O-N?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

494. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:27:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a9cd61hsla26a@corp.supernews.com>
Source record: 75659

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Does your analysis produce the result of 2.3 dB loss claimed by H.
>> for a 1.7:1 SWR?
>
>
> Cheap friggin' damn shot, Roy, after my posting where I disagreed
> with H. and agreed with your calculations.

Sorry, it was an honest question. I saw your posting re the SWR calculations, but guess I missed the one you mention. H's calculations remain a mystery to me, as apparently they do to you.

Roy Lewallen, W7EL

495. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:39:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a9d4okqqv750e@corp.supernews.com>
Source record: 75660

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> In my third example, where does the other 10 watts of reflected power
>> go? If it goes to the load and back, why does it reflect off the
>> source resistor?
>
>
> I have read the third example, which is NOT steady-state,
> and I don't understand the question. Give me some steady-
> state values and I will discuss it.

It most certainly is steady state, as are the other two examples. Perhaps I wasn't clear in saying I was referring to my recent posting. Here it is again:

[The setup is a 100 volt zero impedance voltage source in series with a 50 ohm resistor driving a half wavelength of 50 ohm transmission line.]

Well, shoot, maybe the source resistor dissipates all the reverse power *plus* some more power that comes from somewhere else. So let's try a 200 ohm load. Now the current is 0.4 amp, the power in the 200 ohm load resistor is 32 watts, and the power in the 50 ohm source resistor is 8 watts. The SWR is 4:1, the forward power is 50 watts, and the reverse power is 18 watts. Oops, the source resistor is only dissipating 8 watts but the reverse power is 18 watts. Not only isn't it dissipating all the reverse power, but it isn't even dissipating that extra power that came from somewhere else when we connected the 16.67 ohm resistor. Wonder where the other 10 watts of reverse power went?

Must have bounced off the forward wave, then? If so, did it bounce only when it reached the source, and not all along the line? Why? How much of it bounced back at the load and why? Can you show me how you calculate the various source resistor dissipations for this and the other two examples using your bouncing average power model?

I'd also welcome H.'s comments on this.

Roy Lewallen, W7EL

496. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:52:52 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <EI2pe.413$%j7.255@newssvr11.news.prodigy.com>
Source record: 75662

Richard

I've seen 3-500Z where the solder had melted out of the filament pins.

I have some 811 from my 30L-1 that have holes in the plates, they still work quite well. It's been 15 years since I recall finding the holes in the plate sides and replacing. In additon I can't recall the reason for the holes but it had to be either
1. overdriving (which I don't think I did, 100 watt Icom)
2. high swr which I know has been over 10 to 1, but I can't see how that could do it..
3. Light loading

But in any event for something to melt we need dissipation and only resistance can do that!

--

73
Hank WD5JFR
Still learning, un-learning and re-learning

497. Re: Gamma tube?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:56:47 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <kM2pe.41$eJ.2356334@news.sisna.com>
Source record: 75663

Jim:

Could be... by the time I am done with the venerable half-wave-end-fed I just might try it--I wasn't being picky, just explaining how I was attacking the problem... I don't mind side excursions of thought--your observations/suggestions are noted... thanks!

Warmest regards,
John
"Jim Kelley" <jwkelley@uci.edu> wrote in message news:d82cmv$1p7$1@news.service.uci.edu...
>I could be wrong, but here's what I was getting at. You should be able
>to vary the feedpoint impedance, where ever the feedpoint happens to be
>(in this case, the end), by varying the distance between the attachment
>points of the two conductors of the feedline. The closer they are
>together, naturally, the lower the impedance. It should be possible to
>find a match in this way. Part B would be to keep the feedline from
>trying to radiate.
>
> ac6xg
>
> John Smith wrote:
>
>> Jim:
>>
>> Well, I have found terminology interesting. And, depends on whose
>> you use, there is ARRL of course, then there are a bunch of in-house
>> tech docs from industry.
>>
>> Take what I have been accustomed to calling a 1/2 wave monopole--for
>> example: on 10 meters, it is about a 16 foot metal length and end
>> fed. An EFHWA. Most frequently fed through an L-Match or 1/4 wave
>> matching section--sometimes uniquely though an unun.
>>
>> However, if you attempt to feed it in the middle, it suddenly becomes
>> a dipole, the equiv of two 8 ft-1/4 wave monopoles connected at there
>> bases, and would take a unique feed I am not familiar with, as each
>> 1/4 wave section would need be fed out of phase--and this would be
>> difficult with the impedance so close to the feedline (coax in this
>> case) and having the 1/4 monopoles connected (notice, I didn't say
>> impossible! <grin>.)
>>
>> Spilt the 1/2 monopole and center feed it and it becomes two 1/4 wave
>> monopoles (commonly referred to as a 1/2 wave dipole) and can be
>> center fed with convention means quite easily, as a dipole (indeed,

>> many feed them directly from coax--the more picky through a isolation
>> balun or 1/4 wave section.)
>>
>> However, two 1/2 monopoles, connected at their bases (actually a 1
>> wave length single element) begins to accept center feeding with
>> quite conventional means (ant feed point is high impedance), although
>> in ARRL literature this would be referred to as 1 wave dipole, still
>> it could be modeled as two 1/2 wave monopoles being fed out of phase.
>>
>> All I am concentrating on is the EFHWA (and, if setup right requires
>> no counterpoise), and various means of feeding it, modifications and
>> experiments...
>>
>> Warmest regards,
>> John
>> "Jim Kelley" <jwkelley@uci.edu> wrote in message
>> news:d81up9$k5f$1@news.service.uci.edu...
>>
>>>
>>>John Smith wrote:
>>>
>>>
>>>>might just work, if the total element length is 1 wave! and in a
>>>>dipole configuration...
>>>
>>>You're thinking too far outside the box. Reel it back in a smidge.
>>>:-)
>>>
>>>ac6xg
>>>
>>>
>>>
>>
>>
>>
>

498. Re: SECRETS OF RF CIRCUIT DESIGN - A TAB Book - Hams - Amateur Radio - Etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 20:58:42 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11a9e6jbh31u986@corp.supernews.com>
Source record: 75664
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Dale M." <dale@makosw99so.com> wrote in message
news:060620050855183682%dale@makosw99so.com...
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4554813453

You might mention this is an older edition. Also, while I'd be the first to admit that Joe Carr probably knows a lot more about RF Design than I do, it's much more of a "cookbook" than a book with any significant theoretical basis (such as Hayward's, Orr's or DeMaw's books have); the title is -- IMO -- a little misleading.

---Joel

499. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:07:25 UTC
From: dplatt@radagast.org
Message-ID: <11a9eodj349423a@corp.supernews.com>
Source record: 75665

In article <c9594$42a49eac$438df3df$15175@ALLTEL.NET>,
Fred W4JLE <w4jle@w4jle.com> wrote:

>Let's put this an easier way, how many of you have a low pass filter in
>line. Most manufacturers claim a .25dB or less insertion loss. These filters
>consist of a boat load of coils and caps.
>
>A tuner normally has 2 varible caps and a single silver plated coil.
>
>While any device indeed has loss, here we are picking fly crap out of
>pepper.

I think you're making an inapplicable comparison.

The low-pass filters you're referring to have a relatively low loss when used as directed, it's true... but the "use as directed" condition usually mandates having the proper source and sink impedances on either side. The loaded Q is usually modest.

A transmatch being used to match a difficult load can be in a distinctly different situation. If the load is a harsh one (low R, high magnitude of X), tuning up can create a situation with a high network Q and high circulating currents in the tuner components.

The April '95 QST has an article which shows some actual calculations (and if I recall correctly the Handbook has a bunch of tuner loss tables).

One example in the QST article shows the results of using a T tuner to tune an antenna which is just too darned short. The tuner sees a load of 4.40 - j35 ohms. Although a match can be established with the specified tuner components, the estimated power loss in the tuner is almost 2/3 of the input (4.54 dB!). The transmission line eats enough 11.6 dB, in their example.

Granted, this is a rather pathological situation, but it does occur from time to time in the real world. I've heard numerous reports of people "burning up" their tuners by trying to match a low-resistance, highly-reactive load, and frying the coil. Some of the MFJ tuners seem to have a reputation for suffering from heat damage to the coils (the plastic coil form melts).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

500. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:08:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cic9a1tk7sjmsj205imrg3hvt7d8g5ulgn@4ax.com>
Source record: 75666

On Mon, 6 Jun 2005 15:35:49 -0400, "Bob Spooner" <rls19@psu.edu>
wrote:

>A whole new software industry has grown up because we
>don't require reliability in the software we use.

Hi Bob,

That brings to mind a case that should be drawing to conclusion today,
or at least sometime this week here in Washington state.

It bears on the last election where the Republicans were content to
win with the will of the people when the ballot count showed they were
200 votes, or so, ahead. Out of 2 Million, that was a thin margin of
1% of 1%.

This close count provoked a law mandated, recount which swung the win
to the other column. We have a law that changes the method of
counting to hand, if a certain margin exists, and the losing side is
willing to pay the burden. The Republicans were no longer content
with the will of the people, they expressed they would be more content
with the will of a judge. Hence, the fellow I was working with
(literally) collecting ballots pressed a suit against the election as
being fraudulent. Time will tell if the Republicans will go fishing
for some other entity before whom they will pray for succor.

I won't go into how much they would have lost by if the ballots they
wanted cast out came to pass - they want to win in court, not by
ballot count.

Anyway, this response is directed towards software reliability and
voting machines. We had testimony (from the Industry at a panel
presentation at the League of Women Voters) that software was not 100%
reliable, and we could never hope for it to be 100% reliable. Another
Industry representative, this time credentialed and not selling a
voting system, offered that Bank software counts paper everyday to
exceedingly high precision and accuracy. Much better than current
voting systems.

The salesman hemmed and hawed, threw a hissy fit, and fumed back that
hand counting was not nearly as good as machine counting. By and
large this is true (never mind his software didn't hit the mark of
being even close). Hand counting error rates average about 3 - 5%.
Machine counting error rates average about 2 - 3%.

The election results and the first recount showed less than 1% error
and in fact both this and the last hand (second re-) count agreed

within 1% of 1%. 1% of 1% was not good enough, but no one is suggesting we do this by hand next time when 2 - 3 % machines do it better. Yeah, a contradiction on the face of it, but they only have to convince 1 judge 51% instead of 48% (allowing for the boon of machine error) of 2 Million people.

As some Republican wag on the floor of the House offered across the aisle last November:
"No matter how hard you whip a dead horse, you are not going to win the race."
It's remarkable to see them flogging the road through the flesh stripped ribs of a carcass. I hope they can push it across the finish line so I can see what they call a victory lap.

73's from the Soviet Republic of Washington
Richard Clark, KB7QHC

501. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:23:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4bfb6$3_1@spool9-west.superfeed.net>
Source record: 75667

Roy Lewallen wrote:
> Cecil Moore wrote:
>
>> Roy Lewallen wrote:
>>> Does your analysis produce the result of 2.3 dB loss claimed by H.
>>> for a 1.7:1 SWR?
>>
>> Cheap friggin' damn shot, Roy, after my posting where I disagreed
>> with H. and agreed with your calculations.
>
> Sorry, it was an honest question. I saw your posting re the SWR
> calculations, but guess I missed the one you mention. H's calculations
> remain a mystery to me, as apparently they do to you.
>
> Roy Lewallen, W7EL

Really strange response since you already responded to the posting
where I agreed with you. Are you as senile as I? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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502. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:29:06 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <n73pe.68743$CR5.68404@bignews1.bellsouth.net>
Source record: 75668

Allodoxaphobia,
you must be talking about a tv 'splitter', rather than the balun
(remember, the balun has a 300-ohm cable on one end and a place to screw
coax on the other side.)
it wouldn't (normally) have 3db loss like a splitter would.

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrnda8k8t.eg0.bit-bucket@shell.config.com...
> On Mon, 06 Jun 2005 07:31:32 -0400, J. B. Wood wrote:
> > In article <jzuoe.940$KQ2.679@trnddc08>, "puns" <puns@verizon.net>
wrote:
> >
> >> Are those small 300/75 ohm tv baluns. voltage or current type?
> >
> > Hello, and these broadband 4:1 (impedance ratio) baluns most often are
> > voltage type using two transformers. ... ...
>
> Only the 'quality' ones. I've seen too many that were simply
> resistor bridges. More like a 6dB insertion loss per leg than
> the 'ideal' 3dB loss in a quality transformer-built version.
>
> Jonesy
> --
> | Marvin L Jones | jonz | W3DHJ | linux
> | Gunnison, Colorado | @ | Jonesy | OS/2 __
> | 7,703' -- 2,345m | config.com | DM68mn SK

503. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:41:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a9go3sqfntrcc@corp.supernews.com>
Source record: 75669

Richard Clark wrote:
> . . .
> Hand counting error rates average about 3 - 5%.
> Machine counting error rates average about 2 - 3%.
> . . .

Surely I'm not the only one who wonders what counting method was used to arrive at those numbers. It's tempting to imagine that the hand counting results were checked by machine counting and vice-versa, then the results thrown into some wonderful statistical equation to arrive at those authoritative sounding numbers. . . or is there a hyperaccurate Third Method that The Conspiracy is keeping secret from us?

Roy Lewallen, W7EL

504. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:51:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a4c665$1_1@spool9-west.superfeed.net>
Source record: 75670

Roy Lewallen wrote:
> ... and the power in the 50 ohm source resistor is 8 watts.

Sorry, Roy, the Thevenin equivalent source model expressly forbids
you from making that assumption. You are going to have to do better
than that. What is the DC power input to the source electronics?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

505. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:55:29 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-75B25E.14552906062005@news.newsguy.com>
Source record: 75672
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <OD%oe.22$f%3.1476760@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> not an attack, a statement of fact in my opinion...
>
> John

Your opinion is as valuable as a urine specimen from a stray dog.

Hugs,
Tony

506. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 21:56:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sve9a15olkp1a29u38rnd6efe54d8hg5q4@4ax.com>
Source record: 75671

On Mon, 06 Jun 2005 20:52:52 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>But in any event for something to melt we need dissipation and only
>resistance can do that!

Hi Hank,

Unfortunately as much as you and I agree on that bedrock principle, others with Simpson Ohmmeter in hand would glare goggle eyed at us and say that plate has no resistance to speak of and that no amount of current through its Ohmic resistance could ever bring about enough heat to produce the effects so obviously witnessed. One of the most enraging questions I've asked
"If it is not the value I've offered, what value is it?"

Well, I've never been given a quantitative answer, however I've seen enough carefully crafted mathematical proofs in this group to replace substantive results so easily seen. There is some irrefutable logic in circulation that clearly reveals that what we've experienced just couldn't be.

Glasses will be need to be readjusted for such extreme myopic aberrations. There are two principles involved in what is called Plate Resistance, and the first and foremost is not even related to the plate at all. It is called the work function of the cathode emissivity. So, in fact it is more proper to refer to this usual loss as Cathode Resistance, not Plate Resistance. The cathode is the fundamental limit on power generated.

What Plate Resistance is, is the ill termed substitution for Plate dissipation. If folks want to work their Simpson, they would blow an aneurysm trying to measure the resistance from cathode (filaments have the same work function issue too) to plate. In fact, the hobby horse argument of it is not resistance at all, but some figurative charting artifice called a "load line" usually appears in the last gasp.

Plate Dissipation is resistance clear and simple in spite of the failure of conventional tools to measure a common physical property. Newton would have recognized it, it is called inertia.

Once the work function is overcome (the job of the grid), then Plate voltage dominates through the acceleration of charge beyond the grid, toward the plate. That stream of electrons (and there is no doubt about actual current flow in easily counted, significant populations of electrons) is elevated to 90% the speed of light. This current flow is entirely different from what current flows in the remainder of

the Plate load. That is also known as displacement current and electrons are shuffling along at a placid meter per second rate. Plate current and displacement current are equal in amplitude and phase, but not in motion nor kinetics.

NOW. When that same stream encounters the Plate - WHAM! If anyone here has walked into the wall, and NOT encountered resistance, then we will call you Casper.

Inertia reveals that to slow a mass in a distance results in acceleration (negative in this instance) and that property is called Force. Force over time expends calories and is expressed in any number of systems and units - Watts is one, Degrees is another. We could abstract to Horsepower and Candelas (the plate glows too).

We know the speed, not many here would give it much though, but none would know the length interval of going at that speed to going zero (0). It is roughly two atoms distance into the metal of the plate. I will leave those calculations of Force to the student to compute or I can provide it from notes of correspondence with Walt Maxwell and Richard Harrison from a round robin discussion several years ago.

Hank, does this fulfill your earlier question as to "what" is happening? I first gave you many examples, I hope this segue into real physics fills in their actuality. Too many correspondents demand that I open the source and point at a 50 Ohm carbon composition resistor that is the "source resistance."

73's
Richard Clark, KB7QHC

507. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 22:20:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gnh9a1tacji72th0ulpnfgo08mk0j8hrvq@4ax.com>
Source record: 75673

On Mon, 06 Jun 2005 14:41:20 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Clark wrote:
>> . . .
>> Hand counting error rates average about 3 - 5%.
>> Machine counting error rates average about 2 - 3%.
>> . . .
>
>Surely I'm not the only one who wonders what counting method was used to
>arrive at those numbers.

Rather more mundane and prosaic methods, certainly. The Web is not
shy of content to satisfy your enquiry though.

> It's tempting to imagine that the hand counting
>results were checked by machine counting and vice-versa,

That is one way, and certainly this time was no exception - perhaps
versa-vice.

>then the
>results thrown into some wonderful statistical equation to arrive at
>those authoritative sounding numbers. . .

Authorities have agreed on the results, yes. Most wonderful,
statistical equations are as simple as SUM/NUMBER. Few, I imagine,
rarely pen "wonderful" to their work or methods. Myself, I would shy
from offering what you should accept as authoritative - especially
when the leading defendant in this case has praised my contributions
(as inconsequential as I might think that effort was in proportion).

>or is there a hyperaccurate
>Third Method that The Conspiracy is keeping secret from us?

Hi Roy,

Sorry, when the population daily suffers so much admitted fraud, I
hesitate to offer conspiracy theories that could scavenge up the
crumbs of neglected booty. Perhaps you may be thinking of the
Association for Computing Machinery (ACM). They only host about 8000
pages relative to voting machines. Among them you might find some
amplification of methods, personalities, and challenges to the numbers
I offer.

Dialogue and corrections are always accepted.

73's from a political hack
Richard Clark, KB7QHC

508. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 22:27:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <o54pe.67$zl3.4461699@news.sisna.com>
Source record: 75674
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

As I said, no one forces you to read my posts or provide critiques which are disregarded... you do it for your own reasons... and those are quite obvious...

Warmest regards,
John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message news:shadowlane-75B25E.14552906062005@news.newsguy.com...
> In article <OD%oe.22$f%3.1476760@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> not an attack, a statement of fact in my opinion...
>>
>> John
>
>
>
> Your opinion is as valuable as a urine specimen from a stray dog.
>
> Hugs,
> Tony

509. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 22:31:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a9jmtenvfl143@corp.supernews.com>
Source record: 75525

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> ... and the power in the 50 ohm source resistor is 8 watts.
>
>
> Sorry, Roy, the Thevenin equivalent source model expressly forbids
> you from making that assumption. You are going to have to do better
> than that. What is the DC power input to the source electronics?

Who said anything about a Thevenin equivalent? The circuit I proposed isn't intended to be an equivalent of anything. It's a very simple circuit made with components whose characteristics are well defined and well known. The source is an AC steady state source (which I naively assumed was obvious). There is no DC power input to it. There are no "source electronics" -- there are no electronics at all. All elements in my example are simple electrical circuit components, as described in any elementary electrical circuits textbook.

There are 18 watts of "reverse power" in the transmission line, as calculated by those who embrace this concept. The source resistor matches the Z0 of the line. The source resistor dissipates 8 watts. Nothing "forbids" calculation of the dissipation of the resistor -- it's V^2/R, I^2*R, or V*I, take your choice. Any EE freshman, and I'd like to think most amateurs, including you, should be able to calculate it. The total power from the source equals the sum of the dissipation in the two resistors. The power dissipated by the load is the difference between the "forward power" and "reverse power", as you can easily see with a small amount of simple arithmetic. There is nothing "forbidden" about this simple circuit, except perhaps explanation by means of your theory.

Where's the "reverse power" going?

Any theory that doesn't work in a circuit composed of simple elemental electrical circuit elements is suspect to say the least. Are you saying yours doesn't?

Roy Lewallen, W7EL

510. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 23:01:07 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnda9ldj.18mr.bit-bucket@shell.config.com>
Source record: 75526

```
On Mon, 6 Jun 2005 17:29:06 -0400, Hal Rosser wrote:
>
> "Allodoxaphobia" <bit-bucket@config.com> wrote in message
> news:slrnda8k8t.eg0.bit-bucket@shell.config.com...
>> On Mon, 06 Jun 2005 07:31:32 -0400, J. B. Wood wrote:
>> > In article <jzuoe.940$KQ2.679@trnddc08>, "puns" <puns@verizon.net>
> wrote:
>> >
>> >> Are those small 300/75 ohm tv baluns. voltage or current type?
>> >
>> > Hello, and these broadband 4:1 (impedance ratio) baluns most often are
>> > voltage type using two transformers. ... ... ...
>>
>> Only the 'quality' ones. I've seen too many that were simply
>> resistor bridges. More like a 6dB insertion loss per leg than
>> the 'ideal' 3dB loss in a quality transformer-built version.

> Allodoxaphobia,
> you must be talking about a tv 'splitter', rather than the balun
> (remember, the balun has a 300-ohm cable on one end and a place to screw
> coax on the other side.)
> it wouldn't (normally) have 3db loss like a splitter would.

Yep. You are correct -- I was misreading what my eyes were taking in.
Tho' it would not surprise me to see some cheap 'balun' consisting
of 100ohm-75ohm-100ohm in series with the coax tacked across the
75ohm resistor....

Jonesy -- who needs more skills in Reading-For-Comprehension...
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK
```

511. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 23:18:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d82lkn$av2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75527

Error rates in a voting system can be ascertained to any required
degree of accuracy just by repeating the counting process a number of
times.

It is reasonably assumed errors occur at random.

A comparison with a Hyperaccurate Third Method counting machine is not
required. It could not be trusted anyway.

Reg

==========

"Roy Lewallen" wrote
> Richard Clark wrote:
> > . . .
> > Hand counting error rates average about 3 - 5%.
> > Machine counting error rates average about 2 - 3%.
> > . . .
>
> Surely I'm not the only one who wonders what counting method was
used to
> arrive at those numbers. It's tempting to imagine that the hand
counting
> results were checked by machine counting and vice-versa, then the
> results thrown into some wonderful statistical equation to arrive at
> those authoritative sounding numbers. . . or is there a
hyperaccurate
> Third Method that The Conspiracy is keeping secret from us?
>
> Roy Lewallen, W7EL

512. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-06 23:26:40 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b1977$42a4dbb7$438df3df$2120@ALLTEL.NET>
Source record: 75528

Can you give us a typical loss for a tuner matching a G5RV?

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11a995lcf6afgff@corp.supernews.com...
> Unfortunately, simply counting the number of coils and capacitors isn't
> even an approximate way to judge loss. What counts, mainly, is how much
> current is flowing in those inductors and how large their wire is (and,
> if the capacitors have other than air dielectric, perhaps how much
> voltage is across the capacitors)(*). If you do an analysis of a tuner,
> you'll find that for a given applied power, the inductor current can
> vary a huge amount depending on the load impedance. Consequently, the
> loss can vary a greatly.
>
> Lowpass filters are invariably specified when in a circuit with a fixed,
> specified impedance load. It's not hard at all to design a lowpass
> filter which has low loss under that condition. Likewise, it's not hard
> to design a matching network (tuner) which has low loss when the load
> isn't too far away from 50 ohms resistive. The trick is to maintain
> reasonable loss when the impedance transformation is extreme.
>
> Roy Lewallen, W7EL
>
> Fred W4JLE wrote:
> > Let's put this an easier way, how many of you have a low pass filter in
> > line. Most manufacturers claim a .25dB or less insertion loss. These
filters
> > consist of a boat load of coils and caps.
> >
> > A tuner normally has 2 varible caps and a single silver plated coil.
> >
> > While any device indeed has loss, here we are picking fly crap out of
> > pepper.

513. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 00:47:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11a9rlkcc42sa09@corp.supernews.com>
Source record: 75529

Fred W4JLE wrote:
> Can you give us a typical loss for a tuner matching a G5RV?

No, sorry, I can't, and I don't believe there is such a thing. It's possible of course to find the input impedance of any wire antenna like the G5RV at each of the frequencies of interest. But transmission line lengths and impedances vary, which transforms the impedance seen by the tuner. Those impedance changes can be dramatic, and can result in widely varying tuner efficiency. On top of that, you have the variations in tuner topology and construction which makes a "typical" tuner also an elusive beast. I'd be very suspicious of any "typical" tuner loss figure, and wouldn't expect to see it in practice unless the conditions are spelled out really well and my setup was very similar.

You see, I'm not a true Guru. A real one wouldn't waffle like this, but would give you a positive answer, and you'd very probably never have reason to doubt it.

Roy Lewallen, W7EL

514. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 00:50:27 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ob6pe.72$Sv6.4960392@news.sisna.com>
Source record: 75530

Reg wrote:
" It could not be trusted anyway."

Sounds one of my "public servants" here--I have been highly suspicious
of george lately....

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d82lkn$av2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Error rates in a voting system can be ascertained to any required
> degree of accuracy just by repeating the counting process a number of
> times.
>
> It is reasonably assumed errors occur at random.
>
> A comparison with a Hyperaccurate Third Method counting machine is not
> required. It could not be trusted anyway.
> ----
> Reg
>
> ==
>
> "Roy Lewallen" wrote
>> Richard Clark wrote:
>> > . . .
>> > Hand counting error rates average about 3 - 5%.
>> > Machine counting error rates average about 2 - 3%.
>> > . . .
>>
>> Surely I'm not the only one who wonders what counting method was
> used to
>> arrive at those numbers. It's tempting to imagine that the hand
> counting
>> results were checked by machine counting and vice-versa, then the
>> results thrown into some wonderful statistical equation to arrive at
>> those authoritative sounding numbers. . . or is there a
> hyperaccurate
>> Third Method that The Conspiracy is keeping secret from us?
>>
>> Roy Lewallen, W7EL
>
>

515. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 01:03:19 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <rn6pe.292466$cg1.144339@bgtnsc04-news.ops.worldnet.att.net>
Source record: 75531

Cecil,

Nice try.

You first.

Describe how you set up this coherent wave/anti-wave pair that happily travel together for some indeterminate distance. Then I will describe what happens when at some arbitrary point and time they decide to annihilate.

I will repeat one more time, since you did not seem to understand previously.

* Maxwell's equations are all that is needed.

* Interference is *derived* from the correct application of Maxwell's equations. It is not an independent physical entity.

* Interference may be "intuitive" and it may help your understanding, but it adds precisely nothing to the physics of the problem. Everything you believe is buried in the magic of interference is already built into Maxwell's equations.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> There is no need to invoke interference or wave cancellation to
>> explain anything, ...
>
>
> But there is, Gene. It's the only way to correct the present
> misinformation and old wives' tales being promoted on this
> newsgroup. It is obvious that the r.r.a.a poster who
> understands the role that interference plays in the
> conservation of RF energy is very rare.
>
> There is a conspiracy to keep this information from
> surfacing - "Nothing new", "no need", "irrelevant",
> "who cares?" Why are you guys afraid to discuss the
> technical details?
>
> This should be an easy question to answer. If two coherent

> waves of 50 joules/sec each, are traveling in the same
> path in the same direction and are 180 degrees out of
> phase, they cancel in that direction of travel. What
> happens to their 50+50 joules/sec? Hint: energy doesn't
> cancel and there are only two possible directions. Can
> you spell R-E-F-L-E-C-T-I-O-N?

516. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 01:16:31 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Pz6pe.304$pa3.175@newsread2.news.atl.earthlink.net>
Source record: 75532

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d80oppalu1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Cecil Moore" says -
>
> > There's no such thing as a 100% efficient tuner.
> ==========
> >
> Cecil, not a very surprising statement.
> There's nothing which is 100% efficient.
>
> What is the typical efficiency of a typical tuner with a typical
> antenna.
> Does it differ significantly from 100% ?
> Yes or no?
> ----
> Reg.
>

I did some measurments on a MFJ tuner into a dummy load. While I am not sure if the losses would be more or less than to an acutal antenna, I would assume it should be the best case . The losses were around 5 to 10 watts starting with 100 watts input depending on the band. I think 80 meters was the worse from 80 to 10 meters. This is a small tumer rated around 200 or 300 watts and has a built in wattmeter. This may account for a small aditional loss. I did not use this meter but did use 2 Bird meters , one on the input and one on the output to keep the input power constant at 100 watts.

517. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 01:44:32 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6a0bb$42a4fc07$438df3df$19778@ALLTEL.NET>
Source record: 75533

Can you give us a magnitude, for example for a g5rv on 3.8 MHz fed with 50 feet of 50 ohm coax. Is it .5 or 5 dB?

Or we can be more specific and say we want to match
a 50 Ohm source to R 5000 -J720 using an MFJ989C. What loss is to be expected?

Granted there are cases of attempting to load a short (with respect to frequency) antenna that has extremely low values of R can cause large losses. I would think that a general statement could be made about antennas that are 1/2 wavelength or longer at the operating frequency and the magnitude of losses one could expect from the typical tuner.

Is there no way to quantify the losses, no rule of thumb, should we all throw our tuners away because they may have unpredictable horrendous losses? What steps should be taken by the average amateur to obviate these losses.

I am at a loss to understand how bad the losses are that you and Cecil refer to. Can you lead me from the darkness Sir!.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11a9rlkcc42sa09@corp.supernews.com...
> Fred W4JLE wrote:
> > Can you give us a typical loss for a tuner matching a G5RV?
>
> No, sorry, I can't, and I don't believe there is such a thing. It's
> possible of course to find the input impedance of any wire antenna like
> the G5RV at each of the frequencies of interest. But transmission line
> lengths and impedances vary, which transforms the impedance seen by the
> tuner. Those impedance changes can be dramatic, and can result in widely
> varying tuner efficiency. On top of that, you have the variations in
> tuner topology and construction which makes a "typical" tuner also an
> elusive beast. I'd be very suspicious of any "typical" tuner loss
> figure, and wouldn't expect to see it in practice unless the conditions
> are spelled out really well and my setup was very similar.
>
> You see, I'm not a true Guru. A real one wouldn't waffle like this, but
> would give you a positive answer, and you'd very probably never have
> reason to doubt it.
>
> Roy Lewallen, W7EL

518. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:29:25 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <G7WdnTeT7qQbiTjfRVn-gg@comcast.com>
Source record: 75534

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:6a0bb$42a4fc07$438df3df$19778@ALLTEL.NET...
> Can you give us a magnitude, for example for a g5rv on 3.8 MHz fed with 50
> feet of 50 ohm coax. Is it .5 or 5 dB?
> ....
>.............................
QST has on several occasions tested antenna tuners. The most recent one I found was from last year. The worst case I saw was something like 40% loss when matching an impedance of 6.25 Ohms on, I think, 40 meters. It is worth noting that the 2KW tuners will have less loss than the 300W jobs. Also, the loss depends on the impedance it sees, rather than the SWR. So, for an 8:1 SWR, the loss at 6.25 Ohms will be a lot worse than at 400 Ohms. Among other things, the loss will then depend on the length of the feedline. The high power tuners had a loss of less than 10% over most of the range.

Tam/WB2TT

519. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:34:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5169d$1_1@spool9-west.superfeed.net>
Source record: 75535

Roy Lewallen wrote:
> Where's the "reverse power" going?

Since we can calculate 23 watts of constructive interference
occuring toward the load, using the conservation of energy
principle as explained by Hecht in "Optics", we can deduce
that the reflected power is engaged in destructive interference
inside the black box source. Using Dr. Best's conventions:
V1 = 32v, V2 = 18v, Vfor = 50v, Vref = 30v

> Any theory that doesn't work in a circuit composed of simple elemental
> electrical circuit elements is suspect to say the least. Are you saying
> yours doesn't?

It works just fine. Pfor = P1 + P2 + constructive interference.
But that still looks like a Thevenin equivalent to me, you know,
the one we cannot trust for internal power calculations.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

520. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:36:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11aa5i4qlcvj024@corp.supernews.com>
Source record: 75536

Fred W4JLE wrote:
> Can you give us a magnitude, for example for a g5rv on 3.8 MHz fed with 50
> feet of 50 ohm coax. Is it .5 or 5 dB?

Sorry again, I can't help you much. There are a number of tuner topologies in use (L, pi, high and lowpass tee, LCC, "ultimate transmatch" to name a few), and the loss of one compared to another can be quite different depending on the load impedance, even if all use the same inductor(s).

The information you gave is enough to calculate the impedance seen by the tuner, though, assuming your G5RV is 102 feet long and not one of the countless variations. Assuming a height of 40 feet over average ground, the impedance at 3.8 MHz seen at the input end of 50 feet of 50 ohm coax should be about 2.5 + j23 ohms (SWR ~ 27:1) if the coax is RG-8, or about 4.1 + j22 ohms (SWR ~ 17:1) if the coax is RG-58. (The SWR at the load will be greater than 60:1. You should maybe be worrying more about feedline loss than tuner loss.) I didn't take into account the effect of feedline radiation, which I'll assume is suppressed with a balun.

>
> Or we can be more specific and say we want to match
> a 50 Ohm source to R 5000 -J720 using an MFJ989C. What loss is to be
> expected?

Using the Z you specified or the Z I calculated, all that's necessary then is to obtain a schematic of the tuner and information about the physical construction of the inductor(s), calculate what settings will achieve a match, and find out which of these settings you're using. Then calculate the coil currents and from that the loss. I don't have a schematic of the tuner nor a physical tuner -- I haven't used one for 30 years or more except for a small homebrew tuner for correcting small mismatches to keep my QRP Field Day rig happy. So I don't have a clue. Perhaps someone else who has the tuner, the math ability, the patience, and the time will be willing to help you.

> Granted there are cases of attempting to load a short (with respect to
> frequency) antenna that has extremely low values of R can cause large
> losses. I would think that a general statement could be made about antennas
> that are 1/2 wavelength or longer at the operating frequency and the
> magnitude of losses one could expect from the typical tuner.

I think you can say that if the SWR is no greater than 2:1 or maybe 3:1, the loss in a properly designed tuner should be pretty low. Outside that range, like your 17 - 27 SWR example, I wouldn't speculate.

> Is there no way to quantify the losses, no rule of thumb, should we all
> throw our tuners away because they may have unpredictable horrendous losses?

Hm, are those the only two options? Why not use the tuner, make
contacts, and be happy? And if the tuner has a horrendous loss, why will
throwing it away help? You'll still be better off with it than without it.

> What steps should be taken by the average amateur to obviate these losses.

Adjust the feedline length for each band to present a moderate impedance
to the tuner. Cecil has posted quite a bit about this in the past. And
use a tuner with the largest coil(s) possible. You could set up jumpers
so you can change the topology of the tuner to pi, L, tee, etc. On each
band, try each configuration and, among those which effect a match,
choose the one that gives you the greatest field strength from your
antenna or the highest current to it.

Of course, you could do what I do -- I settle for other than all-band
operation, and make my antennas resonant or nearly resonant. When
matching is required, I do it at the feedpoint with components I've
characterized -- I know the antenna Z and the inductor Qs, so I can
calculate the loss. But most people don't want to do this, and happily
put up with whatever losses they get in exchange. Or you can get
something like the B&W terminated folded dipole, and put the losses at
the antenna instead of the tuner.

> I am at a loss to understand how bad the losses are that you and Cecil refer
> to. Can you lead me from the darkness Sir!.

Nope, sorry, I can't. What's the approximate value of resistors? I can't
answer that one, either.

Roy Lewallen, W7EL

521. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:48:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d835eq$6si$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75537

For efficiency of the L-network tuner on different bands, and losses
in transmission lines and other data, download program DIPOLE3 from
website below.

The program covers dipole + balanced line + balun + coax line + tuner
L and C settings.

With one hit of a key the antenna system can be modelled as a G5RV.

Download program DIPOLE3 in a few seconds. It is also easy to find the
resonant frequencies of the G5RV.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

522. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:49:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a51a35$1_1@spool9-west.superfeed.net>
Source record: 75538

Gene Fuller wrote:

> Cecil,
>
> Nice try.
>
> You first.
>
> Describe how you set up this coherent wave/anti-wave pair that happily
> travel together for some indeterminate distance. Then I will describe
> what happens when at some arbitrary point and time they decide to
> annihilate.

Sure, here's the two coherent reflected waves that cancel at a
Z0-matched impedance discontinuity in a transmission line.

b1 = s11*a1 + s12*a2 = 0

I'm sure you recognize the S-parameter equation for the reflected
voltage flowing toward the source which is the phasor sum of two
other reflected voltages.

They don't travel together for some indeterminate distance. They
are cancelled within the first dl and dt. And they don't annihilate.
They simply cancel in the rearward direction.

Incidentally, if you square both sides of the equation you get

b1^2 = s11^2*a1^2 + s12^2*a2^2 + 2*s11*a1*s12*a2

Pref1 = rho^2*Pfor1 + (1-rho^2)*Pref2 + interference

The forward voltage equation toward the load is b2 = s21*a1 + s22*a2
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

523. Very small FM xmtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:51:31 UTC
From: terryc@sweetwaterhsa.com
Message-ID: <1118116291.864145.297870@g44g2000cwa.googlegroups.com>
Source record: 75539

Hello,

I have a portable music player (MP3, etc) with a built-in FM transmitter. The original transmission antenna is a thin foil thing shaped like a very elongated letter 'E'. It has terrible range; aftermarket transmitters will nearly always do better.

Could somebody point me in the right direction for making a suitable replacement that will still fit inside the very tight (2"x3"x almost nothing) available space? Is it possible, for example, to make a simple (1/48th wave?) dipole antenna of some sort that will be an effective transmitter?

Many thanks for your help to one entirely ignorant in this field.

524. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 03:59:42 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <tr6aa1ts69ut85up12me4p3t1vh2vd3p7n@4ax.com>
Source record: 75540

On Mon, 6 Jun 2005 15:06:13 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Let's put this an easier way, how many of you have a low pass filter in
>line. Most manufacturers claim a .25dB or less insertion loss. These filters
>consist of a boat load of coils and caps.
>
>A tuner normally has 2 varible caps and a single silver plated coil.
>
>While any device indeed has loss, here we are picking fly crap out of
>pepper.

Clearly you didn't read the links or you wouldn't be asking all of the
questions.

525. Re: TV Antenna Balun Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 04:35:53 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <gs9pe.100651$J25.3569@bignews6.bellsouth.net>
Source record: 75541

ok - cool.
I never saw one - I guess I just lead a sheltered life.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:89Qoe.89$zw6.10274978@news.sisna.com...
> Hal:
>
> I have heard others describe them (tv 75/300 baluns) as a normal, albeit
> small, toroid--I don't know, would have to get some and open 'em
> up--sounds to me like all sorts of designs could be being used....
>
> But, if you look at the end of a binocular core, it does indeed have a
> outline much line a figure 8... however, all I have ever heard 'em
> called is binocular cores.... I have "duplicated" this design with two
> toroids, side by side before (and winding through "one side" of each
> independent core, touching at a "side" on each toroid--kinda hard to
> describe), and seemed to work for my purposes--but since I haven't seen
> anyone else doing it--so wouldn't recommend it at this point unless you
> like to experiment... have purchased binocular cores for use in mosfet
> linears before, they are out there...
>
> Warmest regards,
> John
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:CdPoe.58386$6k7.58283@bignews4.bellsouth.net...
> > excuse my inexperience - what do you mean by "binocular core" ?
> > is that like a figure-8 ferite core ?
> > One that I opened up used a ferrite bar about twice the thickness of a
> > toothpick.
> >
> >
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:M3woe.264$jb7.32815201@news.sisna.com...
> >> I never paid much attention, now that you mention it though, I seen
> >> one
> >> busted open once... this particular one had a binocular core...
> >
> >
>
>

526. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 05:45:18 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-D9581E.22450806062005@news.newsguy.com>
Source record: 75542
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <o54pe.67$zl3.4461699@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> As I said, no one forces you to read my posts or provide critiques which
> are disregarded... you do it for your own reasons... and those are quite
> obvious...
>
> Warmest regards,
> John

And you just keep coming back for more, don't you?

Clearly we have a different understanding of the word disregarded.

Tony

527. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 07:50:25 UTC
From: nm5k@wt.net
Message-ID: <1118130625.765076.120920@g43g2000cwa.googlegroups.com>
Source record: 75545

Is there no way to quantify the losses, no rule of thumb, should we
all
throw our tuners away because they may have unpredictable horrendous
losses?

In general I do....I don't use a tuner for any of my everyday
antennas...

What steps should be taken by the average amateur to obviate these
losses.

Quite simple really. Use the very minimum inductance needed to get
a usable match. I once did tests to determine the appx amount of
tuner loss when tuning properly vs improperly. When using an excess
of inductance to match, I saw tuner losses approach 20%. IE: 20w out
of 100w. When carefully tuning, using the very least inductance, this
loss could be reduced to a value nearly unreadable. BUT!!! This was
on a resonant 50 ohm system. You could expect the losses of an extreme
mismatch to be higher, even if you tuned very carefully. The losses
and
coil warming when feeding a 1/2 size dipole with a T net tuner are well
known.
Thats how I got a free MFJ 989c when a friend of mine couldn't keep
from
frying the plastic coil forms. He bought a nye viking, and gave me the
989c.
Which I've used since with no problems at all....It wasn't really the
tuners
fault...He was abusing it trying to feed a 1/2 size dipole, and then
running a
TL-922 flat out on top of that...:(MK

528. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 08:39:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11aanatdsafqi3f@corp.supernews.com>
Source record: 75543

Your use of "Dr. Best's conventions" only muddles the matter -- neither I nor probably any of the other readers have any idea what this is. In any event, the numbers you produced are volts. I and many others know how to calculate forward and reflected voltages and currents, and their sums. What's at issue here is where the imaginary waves of average power are going, what they're bouncing off, and why. Correct me if I'm wrong, but power is generally expressed in watts, BTUs per hour, or other more arcane units, but not volts.

Let's try again. The source is providing 40 watts, 32 watts of which is delivered to the transmission line. The transmission line is transferring this 32 watts of power to the load. In the transmission line, we can calculate that there's 50 watts of "forward power", and 18 watts of "reverse power". How much of that 18 watts of reverse power is going through the source resistor to reach the source to "engage in destructive interference"? What does it interfere with? How does whatever it interferes with get there? Does any of the power going either way, forward or reverse, get dissipated in the source resistor? If so, how much and why? If not, why not?

In your "explanation", I don't see a single figure in watts, except that "we have 23 watts of constructive interference occuring toward the load". (Where is this interference occurring, that is, just where is the point "toward the load" located? Where did the 23 watt figure come from? How much of it is "forward power" and how much "reverse power"?) It's not an explanation at all, but hand-waving.

And why do you insist that every combination of voltage source and resistor be a "Thevenin equivalent"? I suggest you go back and read your basic circuits texts, where you'll find that a Thevenin equivalent is a circuit which is used to substitute for a more complex linear circuit to simplify analysis. The electrical circuit components used here are not a substitute for anything. And there's no rule, except something apparently stuck firmly in your mind(*), which prohibits calculating the power dissipated in a resistor. No matter what it's connected to. I make no claim that the power dissipated by the resistor represents anything but the power dissipated in a resistor, that the resistor represents anything but a resistor and the voltage source anything but a voltage source. It is not a Thevenin equivalent, it's a painfully simple electrical circuit (alas, so simple it's difficult to obfuscate). It doesn't matter if you can trust a Thevenin equivalent for internal power calculations. There is no "internal power" here -- it's all out in the open where we can easily measure and calculate it.

There's nothing in that "black box source" except an ideal voltage source. You can find a description of this fundamental electrical circuit component, including its complete terminal characteristics, in the circuit analysis textbook of your choice. People skilled in the art are able to calculate the power it produces by multiplying v across it times i flowing from it, and the average power by applying the mathematical definition of average to the calculated power. In this case, it produces an average of 40 watts (100 volts times 0.4 amp).

So please tell us how many watts are going where, what they do when they get there, and why. If you can't, you don't have a theory at all.

(*)Forgive me, I just can't shake the image of a certain memorable scene from the movie "The Long Kiss Goodbye" as I write this.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Where's the "reverse power" going?
>
>
> Since we can calculate 23 watts of constructive interference
> occuring toward the load, using the conservation of energy
> principle as explained by Hecht in "Optics", we can deduce
> that the reflected power is engaged in destructive interference
> inside the black box source. Using Dr. Best's conventions:
> V1 = 32v, V2 = 18v, Vfor = 50v, Vref = 30v
>
>> Any theory that doesn't work in a circuit composed of simple elemental
>> electrical circuit elements is suspect to say the least. Are you
>> saying yours doesn't?
>
>
> It works just fine. Pfor = P1 + P2 + constructive interference.
> But that still looks like a Thevenin equivalent to me, you know,
> the one we cannot trust for internal power calculations.

529. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 08:43:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11aanhpdnb5jg76@corp.supernews.com>
Source record: 75544

nm5k@wt.net wrote:
>
> Quite simple really. Use the very minimum inductance needed to get
> a usable match. I once did tests to determine the appx amount of
> tuner loss when tuning properly vs improperly. When using an excess
> of inductance to match, I saw tuner losses approach 20%. IE: 20w out
> of 100w. When carefully tuning, using the very least inductance, this
> loss could be reduced to a value nearly unreadable. . . .

Why bother, unless you're having a problem with the heat? 20% loss is
just about exactly 1 dB.

Roy Lewallen, W7EL

530. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 09:04:31 UTC
From: richardharrison@webtv.net
Message-ID: <23494-42A5631F-292@storefull-3254.bay.webtv.net>
Source record: 75546

Dave C wrote:
"What point is considered the focuspoint of the horn?"

The equation for the parabolic reflector`s surface contour is:
R=2L/1+cos theta
R=distance to a parabooid`s surface point from focal point
L=vertex to focal point distance
theta=angle made by a direct ray to a surface point with the axis of the parabola

A feeedhorn radiates into the reflector`s focal point, usually on the parabola`s axis. All rays perpendicular to the plane across the mouth of the paraboloid converge at the focal point due to reflection.

At the plane across the mouth of the paraboloid, the total distance from the mouth to the reflector and from the reflector to the focal point is the same for every point on the plane. Rays come and go in parallel routes to its axis, in and out of the parabola, and all of these pass through its focal point.

A parabolic reflector tends to collimate radiation from its focal point into a beam parallel with its azis. Reciprocity rules so that incoming radiation has the same directional characteristic.

Best regards, Richard Harrison, KB5WZI

531. No Ground HF mobile antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 11:18:15 UTC
From: John <john@lampooners.com>
Message-ID: <Xnfpe.23117$_z6.1841928@twister.southeast.rr.com>
Source record: 75547

Hi,

Looking for any ideas or info on a 'No Ground' HF antenna to mount on a motorhome.

Thanks in advance for any assistance.

John

532. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 11:35:50 UTC
From: pw342@hotmail.com
Message-ID: <1118144150.812743.224410@f14g2000cwb.googlegroups.com>
Source record: 75548

My 2 cents on the subject of tuner loss.
A tuner will Always introduce more loss to the system.
If the total power output of the transmitter is not improved(ie, at < 2:1 SWR), then using the tuner to reduce SWR to 1:1 is counter productive, isn't it?
In other words, getting the SWR down to 1:1 from anything <= 2:1, will always cause a reduction in total power out.

Pat W0OPW

533. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 13:30:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ud7ba159cptvgqabalropkbfbt2dio808n@4ax.com>
Source record: 75554

On 7 Jun 2005 04:35:50 -0700, pw342@hotmail.com wrote:

>My 2 cents on the subject of tuner loss.
>A tuner will Always introduce more loss to the system.
>If the total power output of the transmitter is not improved(ie, at <
>2:1 SWR), then using the tuner to reduce SWR to 1:1 is counter
>productive, isn't it?

For me, not so. The manual for my Icom 735 says it is designed to
handle 1:1.5 swr, but to try to get it as close to 1:1 as possible.

I just tried an experiment on 20 meters with my 80 meter dipole and an
MFJ 989c tuner. At 1:1 swr, the meter measures 110 watts out; raising
the swr to 2:1 lowers the metered output to 20 watts. So I'm not sure
what the advantage of running a higher swr is.

bob
k5qwg

> In other words, getting the SWR down to 1:1 from anything <= 2:1, will
>always cause a reduction in total power out.
>
> Pat W0OPW

534. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 13:44:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5a5b2$1_2@spool9-west.superfeed.net>
Source record: 75555

Roy Lewallen wrote:

We are not going to get anywhere until you admit there is 68
joules/sec in the feedline that haven't yet made it to the
load. Once you admit that fact, everything else will be moot.

> Let's try again. The source is providing 40 watts, 32 watts of which is
> delivered to the transmission line. The transmission line is
> transferring this 32 watts of power to the load. In the transmission
> line, we can calculate that there's 50 watts of "forward power", and 18
> watts of "reverse power".

And it is easy to prove that the source has generated 50+18=68
watts that have not been delivered to the load. So I ask
you: Where are those 68 joules/sec located during steady-state
if not in the forward and reflected power waves? Why will
68 joules/sec be dissipated in the system *after* the source
power is turned off?

If those 68 joules/sec that have been generated by the source
but not delivered to the load are not in the forward and reflected
power waves, exactly where are they located? There's really no
sense in continuing this discussion until you answer that question.
Everything else is just a side argument.

The answer to that question will expose the errors in your premises.
You are apparently assuming there is not enough energy in the system
during steady-state to support the forward and reflected power waves.
But that exact amount of energy was supplied during the power-on
transient state and will be dissipated during the power-off transient
state. If it's not in the forward and reflected power waves, you
are going to have to store it somewhere else. Where is that
somewhere else?

The source has supplied 68 joules/sec that has not reached the
load. The forward and reflected power waves require 68 joules/sec.
That you don't see the logical connection between those two equal
energy values is amazing.

But I will get you started on an understanding of the component
powers using an S-parameter analysis.

> How much of that 18 watts of reverse power is
> going through the source resistor to reach the source to "engage in
> destructive interference"?

reference the S-parameter equation: b1 = s11*a1 + s12*a2

I calculate 11.52 watts. (s12*a2)^2 = 11.52 watts

The other 6.48 watts are in (s22*a2)^2 where |a2|^2 = 18 watts

> What does it interfere with?

From the S-parameter equation above, it obviously interferes
with s11*a1 .

Please reference HP App Note 95-1, available on the web. It should
answer most of your questions, in particular pages 16 & 17.
|a1|^2 = Power incident on the input of the network
|a2|^2 = Power incident on the output of the network
|b1|^2 = Power reflected from the input port of the network
|b2|^2 = Power reflected from the output port of the network
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

535. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 13:49:08 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <oBhpe.909110$w62.1254@bgtnsc05-news.ops.worldnet.att.net>
Source record: 75556

Cecil,

You completely ducked the question. How did those waves get there in the first place? Hint: there are no laws for conservation of waves or continuity of waves.

It is easy to set up a problem with physically unrealizable inputs. It is pointless to try to solve such a problem, however.

We've been around this track a couple of times before. Neither of us has changed.

Bye.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil,
>>
>> Nice try.
>>
>> You first.
>>
>> Describe how you set up this coherent wave/anti-wave pair that happily
>> travel together for some indeterminate distance. Then I will describe
>> what happens when at some arbitrary point and time they decide to
>> annihilate.
>
>
> Sure, here's the two coherent reflected waves that cancel at a
> Z0-matched impedance discontinuity in a transmission line.
>
> b1 = s11*a1 + s12*a2 = 0
>
> I'm sure you recognize the S-parameter equation for the reflected
> voltage flowing toward the source which is the phasor sum of two
> other reflected voltages.
>
> They don't travel together for some indeterminate distance. They
> are cancelled within the first dl and dt. And they don't annihilate.
> They simply cancel in the rearward direction.
>

> Incidentally, if you square both sides of the equation you get
>
> b1^2 = s11^2*a1^2 + s12^2*a2^2 + 2*s11*a1*s12*a2
>
> Pref1 = rho^2*Pfor1 + (1-rho^2)*Pref2 + interference
>
> The forward voltage equation toward the load is b2 = s21*a1 + s22*a2

536. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 13:55:31 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qHhpe.134$2l7.6916200@news.sisna.com>
Source record: 75557
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony:

Yes, quite different modes of thinking here... coming back for more?
Hmmm, like you are trying to attempt some form of manipulation I should
be trying to avoid? Or, you are attempting some form of punishment I
should be attempting to avoid? Or, you are such a verbal genius you
sure showed me? Hmmm....

John
"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-D9581E.22450806062005@news.newsguy.com...
> In article <o54pe.67$zl3.4461699@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> As I said, no one forces you to read my posts or provide critiques
>> which
>> are disregarded... you do it for your own reasons... and those are
>> quite
>> obvious...
>>
>> Warmest regards,
>> John
>
>
>
> And you just keep coming back for more, don't you?
>
> Clearly we have a different understanding of the word disregarded.
>
> Tony

537. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 14:12:29 UTC
From: capolk@hotmail.com
Message-ID: <fpaba1tf56f8lj8sul5rld1vqccu442gih@4ax.com>
Source record: 75558
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Tue, 7 Jun 2005 06:55:31 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Tony:
>
>Yes, quite different modes of thinking here... coming back for more?
>Hmmm, like you are trying to attempt some form of manipulation I should
>be trying to avoid? Or, you are attempting some form of punishment I
>should be attempting to avoid? Or, you are such a verbal genius you
>sure showed me? Hmmm....

Go with that last option.

538. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 14:34:53 UTC
From: Bob Spooner <rls19@psu.edu>
Message-ID: <d84bag$ln2$1@f04n12.cac.psu.edu>
Source record: 75559

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d82lkn$av2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Error rates in a voting system can be ascertained to any required
> degree of accuracy just by repeating the counting process a number of
> times.
>
> It is reasonably assumed errors occur at random.

Reg,

That's assuming that those doing (or controlling) the counting are honest.
But unfortunately, honesty doesn't seem to be valued very highly either.
There was an inner city Philadelphia precinct that had a 100% voter turnout
during a recent presidential election...

73,
Bob AD3K

>
> A comparison with a Hyperaccurate Third Method counting machine is not
> required. It could not be trusted anyway.
> ----
> Reg
>
> ==
>
> "Roy Lewallen" wrote
> > Richard Clark wrote:
> > > . . .
> > > Hand counting error rates average about 3 - 5%.
> > > Machine counting error rates average about 2 - 3%.
> > > . . .
> >
> > Surely I'm not the only one who wonders what counting method was
> used to
> > arrive at those numbers. It's tempting to imagine that the hand
> counting
> > results were checked by machine counting and vice-versa, then the
> > results thrown into some wonderful statistical equation to arrive at
> > those authoritative sounding numbers. . . or is there a
> hyperaccurate
> > Third Method that The Conspiracy is keeping secret from us?
> >
> > Roy Lewallen, W7EL
>

>

539. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 14:40:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ylipe.140$MG1.9186396@news.sisna.com>
Source record: 75560
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
... seems I end up there a lot, exchanging text with someone pointing
out they are actually not meaning what they are saying, then in the end
they supply proof that they have been headed in a direction 180 degrees
opposite the direction they have been claiming... quite used to it
here...

John
<capolk@hotmail.com> wrote in message
news:fpaba1tf56f8lj8sul5rld1vqccu442gih@4ax.com...
> On Tue, 7 Jun 2005 06:55:31 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Tony:
>>
>>Yes, quite different modes of thinking here... coming back for more?
>>Hmmm, like you are trying to attempt some form of manipulation I
>>should
>>be trying to avoid? Or, you are attempting some form of punishment I
>>should be attempting to avoid? Or, you are such a verbal genius you
>>sure showed me? Hmmm....
>
> Go with that last option.
>
```

540. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 14:59:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <41644$42a5b669$438df3df$29837@ALLTEL.NET>
Source record: 75550

Do you have a need to be so supercilious?.

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:tr6aa1ts69ut85up12me4p3t1vh2vd3p7n@4ax.com...
> On Mon, 6 Jun 2005 15:06:13 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> Clearly you didn't read the links or you wouldn't be asking all of the
> questions.
>

541. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:01:26 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <aFipe.1525$I14.1222@newssvr12.news.prodigy.com>
Source record: 75552

Richard
Thanks for your explanation, I'm still thinking it over since its been 40 years since I've studied any tube theory. .. I recall many years ago watching a guy trying to fix an old radio. IIRC it had an 80 rectifier and right after the radio was turned on and started to warm up a blue cloud could be seen in the tube as the plates started to turn redder and redder. He would turn it off, change a part and check it again. I don't think he fixed it before the 80 went south. Later I figured out that he probably had a shorted filter cap.
In this case the diode's plate dissipation rating was exceeded and it melted. The electrons slamming into the plate have a lot of kinetic energy to transfer. and heat up the plate. This results in lower efficiency as this power isn't delivered to the load. Now the diodes resistance can be easily calculated but I'm not sure how to visualize it. Is this where your term cathode resistance enters the picture?
tnx

--

73
Hank WD5JFR
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:sve9a15olkp1a29u38rnd6efe54d8hg5q4@4ax.com...
> On Mon, 06 Jun 2005 20:52:52 GMT, "Henry Kolesnik"
> <kolesnik@sbcglobal.net> wrote:
>
>>But in any event for something to melt we need dissipation and only
>>resistance can do that!
>
>
> Hi Hank,
>
> Unfortunately as much as you and I agree on that bedrock principle,
> others with Simpson Ohmmeter in hand would glare goggle eyed at us and
> say that plate has no resistance to speak of and that no amount of
> current through its Ohmic resistance could ever bring about enough
> heat to produce the effects so obviously witnessed. One of the most
> enraging questions I've asked
> "If it is not the value I've offered, what value is it?"
>
> Well, I've never been given a quantitative answer, however I've seen
> enough carefully crafted mathematical proofs in this group to replace
> substantive results so easily seen. There is some irrefutable logic
> in circulation that clearly reveals that what we've experienced just
> couldn't be.

>
> Glasses will be need to be readjusted for such extreme myopic
> aberrations. There are two principles involved in what is called
> Plate Resistance, and the first and foremost is not even related to
> the plate at all. It is called the work function of the cathode
> emissivity. So, in fact it is more proper to refer to this usual loss
> as Cathode Resistance, not Plate Resistance. The cathode is the
> fundamental limit on power generated.
>
> What Plate Resistance is, is the ill termed substitution for Plate
> dissipation. If folks want to work their Simpson, they would blow an
> aneurysm trying to measure the resistance from cathode (filaments have
> the same work function issue too) to plate. In fact, the hobby horse
> argument of it is not resistance at all, but some figurative charting
> artifice called a "load line" usually appears in the last gasp.
>
> Plate Dissipation is resistance clear and simple in spite of the
> failure of conventional tools to measure a common physical property.
> Newton would have recognized it, it is called inertia.
>
> Once the work function is overcome (the job of the grid), then Plate
> voltage dominates through the acceleration of charge beyond the grid,
> toward the plate. That stream of electrons (and there is no doubt
> about actual current flow in easily counted, significant populations
> of electrons) is elevated to 90% the speed of light. This current
> flow is entirely different from what current flows in the remainder of
> the Plate load. That is also known as displacement current and
> electrons are shuffling along at a placid meter per second rate.
> Plate current and displacement current are equal in amplitude and
> phase, but not in motion nor kinetics.
>
> NOW. When that same stream encounters the Plate - WHAM! If anyone
> here has walked into the wall, and NOT encountered resistance, then we
> will call you Casper.
>
> Inertia reveals that to slow a mass in a distance results in
> acceleration (negative in this instance) and that property is called
> Force. Force over time expends calories and is expressed in any
> number of systems and units - Watts is one, Degrees is another. We
> could abstract to Horsepower and Candelas (the plate glows too).
>
> We know the speed, not many here would give it much though, but none
> would know the length interval of going at that speed to going zero
> (0). It is roughly two atoms distance into the metal of the plate. I
> will leave those calculations of Force to the student to compute or I
> can provide it from notes of correspondence with Walt Maxwell and
> Richard Harrison from a round robin discussion several years ago.
>
> Hank, does this fulfill your earlier question as to "what" is
> happening? I first gave you many examples, I hope this segue into

> real physics fills in their actuality. Too many correspondents demand
> that I open the source and point at a 50 Ohm carbon composition
> resistor that is the "source resistance."
>
> 73's
> Richard Clark, KB7QHC

542. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:01:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5b7c4$1_1@spool9-west.superfeed.net>
Source record: 75549

Gene Fuller wrote:
> You completely ducked the question. How did those waves get there in the
> first place? Hint: there are no laws for conservation of waves or
> continuity of waves.

I answered the question in another posting. The waves got there
during the power-on transient state. Conservation of energy is
assumed. Hope you don't disagree with that principle.

If we make Roy's lossless 50 ohm feedline one second long (an
integer number of wavelengths), during steady-state, the source
will have supplied 68 joules of energy that has not reached the
load. That will continue throughout steady state. The 68 joules
of energy will be dissipated by the system during the power-off
transient state.

What you guys are trying to do is hide 68 joules of energy that
cannot be destroyed. Where can you hide it in a transmission line
to prove that it is not there in the forward and reflected waves?
What is your agenda in trying to deny/hide/disguise/ignore that
68 joules of energy?

In the one second example, the forward and reflected waves require
68 joules of energy for their existence in the feedline. The source
has supplied 68 joules of energy that has not yet reached the load
so it must necessarily still be in the feedline. Wonder where
the energy in the forward and reflected waves came from? Shirley,
you jest!

Incidentally, QEX wants to publish my article.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

543. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:07:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5b901$1_2@spool9-west.superfeed.net>
Source record: 75553

Bob Spooner wrote:
> That's assuming that those doing (or controlling) the counting are honest.
> But unfortunately, honesty doesn't seem to be valued very highly either.
> There was an inner city Philadelphia precinct that had a 100% voter turnout
> during a recent presidential election...

During the Lyndon B. Johnson senatorial election, some voters
in Jim Wells County arose from their cemetery graves and
voted for Johnson. Others registered to vote in alphabetical
order. When Gov. Price Daniels showed up with the Texas
Rangers, the court house had mysteriously burned down along
with all the voting records and the rest is history.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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544. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:10:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qNipe.150$4u2.10218569@news.sisna.com>
Source record: 75551

Cecil:

And then they want to go to electronic voting--makes you wonder who is running the show? Might just end up being one guy with access to the database... <grin>

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a5b901$1_2@spool9-west.superfeed.net...
> Bob Spooner wrote:
>> That's assuming that those doing (or controlling) the counting are
>> honest.
>> But unfortunately, honesty doesn't seem to be valued very highly
>> either.
>> There was an inner city Philadelphia precinct that had a 100% voter
>> turnout
>> during a recent presidential election...
>
> During the Lyndon B. Johnson senatorial election, some voters
> in Jim Wells County arose from their cemetery graves and
> voted for Johnson. Others registered to vote in alphabetical
> order. When Gov. Price Daniels showed up with the Texas
> Rangers, the court house had mysteriously burned down along
> with all the voting records and the rest is history.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
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545. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:14:58 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-98041C.08145807062005@news.newsguy.com>
Source record: 75562
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <ylipe.140$MG1.9186396@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> ... seems I end up there a lot, exchanging text with someone pointing
> out they are actually not meaning what they are saying, then in the end
> they supply proof that they have been headed in a direction 180 degrees
> opposite the direction they have been claiming... quite used to it
> here...

What the hell does any of that mean?

Tony

546. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:31:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5bea3$1_2@spool9-west.superfeed.net>
Source record: 75561

John Smith wrote:
> And then they want to go to electronic voting--makes you wonder who is
> running the show? Might just end up being one guy with access to the
> database... <grin>

Might be worse than that. Did you ever see the movie,
"Colossus, The Forbin Project"?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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547. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:51:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d84fqn$3kl$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75564

If you can't get the internal SWR meter on an Icom 735 (or similar rigs) down to exactly 1:1 then either there's something wrong with the tuner or with the tuner operator.

The tuner either works or it doesn't. There's no half-way house. Without a tuner anything can happen. And it usually does.

There are far too many sleepless nights unnecessarily caused by the SWR meter not being in the right imagined ballpark. Just ask yourselves is the transmitter loaded with roughly 50 ohms or isn't it. The SWR on the feedline hardly matters two hoots - the so called SWR meter doesn't measure it anyway.

Do G5RV addicts realise that under even the best conditions the SWR on the feedline is as high as 10-to-1 regardless of what the meter says. But it doesn't seem to worry them.

Reg.

548. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 15:53:19 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Opjpe.166$y62.10099840@news.sisna.com>
Source record: 75565
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

As I have said, my posts are probably too upsetting for you, pop a
prozac and sit back... try to avoid the insane urges to read them...

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-98041C.08145807062005@news.newsguy.com...
> In article <ylipe.140$MG1.9186396@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> ... seems I end up there a lot, exchanging text with someone pointing
>> out they are actually not meaning what they are saying, then in the
>> end
>> they supply proof that they have been headed in a direction 180
>> degrees
>> opposite the direction they have been claiming... quite used to it
>> here...
>
>
>
> What the hell does any of that mean?
>
> Tony

549. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 16:19:23 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <45a40$42a5c913$438df3df$30689@ALLTEL.NET>
Source record: 75563

All my feedlines have a 9:1 SWR by design.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d84fqn$3kl$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> If you can't get the internal SWR meter on an Icom 735 (or similar
> rigs) down to exactly 1:1 then either there's something wrong with the
> tuner or with the tuner operator.
>
> The tuner either works or it doesn't. There's no half-way house.
> Without a tuner anything can happen. And it usually does.
>
> There are far too many sleepless nights unnecessarily caused by the
> SWR meter not being in the right imagined ballpark. Just ask
> yourselves is the transmitter loaded with roughly 50 ohms or isn't it.
> The SWR on the feedline hardly matters two hoots - the so called SWR
> meter doesn't measure it anyway.
>
> Do G5RV addicts realise that under even the best conditions the SWR on
> the feedline is as high as 10-to-1 regardless of what the meter says.
> But it doesn't seem to worry them.
> ----
> Reg.
>
>

550. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 16:23:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d84hmo$b84$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75566

> Please reference HP App Note 95-1, available on the web.
>
There's only one in every half a million of radio amateurs who have a copy of this document, or have ever heard of its existence, let alone having any chance of finding a readable copy of it within the next dozen years. By which time they will have changed their hobby to keeping tropical fish or making Newtonian telescopes. Or just died.

In all likelihood they won't be able to make any sense out of it anyway.

Cec, why do you bother to mention it? (smiley)

Reg.

551. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 16:51:39 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-D5EFA2.09513907062005@news.newsguy.com>
Source record: 75568
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <Opjpe.166$y62.10099840@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> As I have said, my posts are probably too upsetting for you, pop a
> prozac and sit back... try to avoid the insane urges to read them...

And you're surprised when people treat you like an asshole?

Tony

552. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:00:01 UTC
From: capolk@hotmail.com
Message-ID: <kjkba19o8up1fpp959t9e606c1of08gp02@4ax.com>
Source record: 75567
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Tue, 7 Jun 2005 08:53:19 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>As I have said, my posts are probably too upsetting for you, pop a
>prozac and sit back... try to avoid the insane urges to read them...

But if it doesn't work for you, why would it work for anybody else?

553. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:14:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <VBkpe.173$XD6.11078764@news.sisna.com>
Source record: 75582
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
... hey, if the drugs aren't working--have you exhausted
psychotherapy--you might consider it as an alternative therapy....

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-D5EFA2.09513907062005@news.newsguy.com...
> In article <Opjpe.166$y62.10099840@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> As I have said, my posts are probably too upsetting for you, pop a
>> prozac and sit back... try to avoid the insane urges to read them...
>
>
> And you're surprised when people treat you like an asshole?
>
> Tony
```

554. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:15:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <FCkpe.174$A_5.11009097@news.sisna.com>
Source record: 75578
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
... not upset here, rather just managing to stay entertained with the
slapstick comedy... <grin>

John
<capolk@hotmail.com> wrote in message
news:kjkba19o8up1fpp959t9e606c1of08gp02@4ax.com...
> On Tue, 7 Jun 2005 08:53:19 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>As I have said, my posts are probably too upsetting for you, pop a
>>prozac and sit back... try to avoid the insane urges to read them...
>
> But if it doesn't work for you, why would it work for anybody else?
```

555. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:16:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <_Dkpe.176$2B6.11069561@news.sisna.com>
Source record: 75581
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

While two stooges are better than one, you guys don't have a brother or
friend you could invite--do you?

John
<capolk@hotmail.com> wrote in message
news:kjkba19o8up1fpp959t9e606c1of08gp02@4ax.com...
> On Tue, 7 Jun 2005 08:53:19 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>As I have said, my posts are probably too upsetting for you, pop a
>>prozac and sit back... try to avoid the insane urges to read them...
>
> But if it doesn't work for you, why would it work for anybody else?

556. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:17:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5d7a2$1_1@spool9-west.superfeed.net>
Source record: 75569

Reg Edwards wrote:
> If you can't get the internal SWR meter on an Icom 735 (or similar
> rigs) down to exactly 1:1 then either there's something wrong with the
> tuner or with the tuner operator.

What you say is true for roller inductor tuners, Reg,
but most tuners have switched inductors. The perfect
inductance may not be possible.
--
73, Cecil http://www.qsl.net/w5dxp

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557. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:22:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5d8a8$1_2@spool9-west.superfeed.net>
Source record: 75570

Fred W4JLE wrote:
> All my feedlines have a 9:1 SWR by design.

Heh, heh, I understand perfectly. Don't know
how many others do. :-) All my feedlines have
an SWR between 5:1 and 13:1 by design.
--
73, Cecil http://www.qsl.net/w5dxp

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558. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:26:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d84lcqcnq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75571

> That's assuming that those doing (or controlling) the counting are
honest.
> But unfortunately, honesty doesn't seem to be valued very highly
either.
> There was an inner city Philadelphia precinct that had a 100% voter
turnout
> during a recent presidential election...
>
> 73,
> Bob AD3K
>
Bob, it appears to be contageous. There are signs of voting corruption even in English politics. In the meantime 100's of thousands die worldwide from starvation and shortage of water, or suffer from withdrawal of medical supplies. The effects of 'world warming' are beginning to be felt. The economic wars between international oil and energy corporations and bankers continues unabated. A civil war in the US is looming with the population already armed to the teeth. Perhaps the Chinese will help us out if we make friends with them.

But let's try to be cheerful. How's your SWR? ;o) ;o)

Reg.

559. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:30:11 UTC
From: Buck <iam@this.site>
Message-ID: <r6mba15o2ecm0flcpdhomh3fpcrguv5jgo@4ax.com>
Source record: 75573

On Sun, 05 Jun 2005 19:21:27 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Chuck Olson wrote:
>> The tuner doesn't reduce efficiency - -
>
>There's no such thing as a 100% efficient tuner.

I realize that a tuner is not 100% efficient, but when I hook up my 80
meter dipole and listen on 20 meters (the wire is fed with coax), the
signals are stronger when tuned thru the tuner rather than direct from
the antenna. Not to mention that when I transmit, the radio is
operating on reduced power with the dipole direct. I realize that
there is considerable loss in my coax (I am using garbage and know it)
and that I am taking a loss thru the tuner, but it is a better option
than direct thru the coax alone.

;)

--
73 for now
Buck
N4PGW

560. faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:30:13 UTC
From: netkev@gmail.com
Message-ID: <1118165413.190574.198090@g43g2000cwa.googlegroups.com>
Source record: 75572

I searched the archives and found this question addressed but not fully. I have a verizon cell with a dual-band radio 800/1900. I get service everywhere except...my new apartment. Ofcourse, probably a typical scenario. The second I walk into the apt, the signal drops to nothing. Outside, I have full strength. My assumption is that it must be the construction of the building that's creating some type of faraday cage.

The obvious solutions to my problem are:
Buy a new phone from a different provider
Use a land line
Purchase a cell repeater for the 800/1900 freq (unsure which is being used in my area but I will find out)
Connect an external antenna to the phone

Switching providers is not an option due to the fact that I've tried 'em and Verizon has the best coverage in my area...w/ the exception of my apt.

I hate the idea of having multiple phone numbers so I dont want a land line.

I am honestly considering the cell repeater but the cost is putting me off. They cost around $500-700. I get the feeling this could be built for pretty cheap but I'm not an electrical engineer so ... Apparently, they use them in my office building for sprint since our company has a very large contract with them.

I'd prefer to remain wireless so an external antenna, unless it's small enough to strap to my flip phone(which I have been unable to find) is out of the question.

What about a passive antenna? I know that traditionally they are looked down upon and can even cause signal degradation but in my case, the signal is VERY strong just outside. Is it a possibility? If so, what size antennas should I purchase for the 800 or 1900 bands? Obviously, I will have to figure out which is being used in my area but there must be a simple formula for the size. Also, coaxial type, placement, etc?

I'm using the samsung sch-i600 smartphone with windows mobile 2002 on the verizon cdma network. This phone is dual-band, digital. No amps/analog.

Any other ideas?

561. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:33:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5db71$1_1@spool9-west.superfeed.net>
Source record: 75574

Reg Edwards wrote:

> W5DXP wrote:
>>Please reference HP App Note 95-1, available on the web.

> There's only one in every half a million of radio amateurs who have a
> copy of this document, or have ever heard of its existence, let alone
> having any chance of finding a readable copy of it within the next
> dozen years.

Give me a break, Reg. Download it for free and enjoy from:

http://www.sss-mag.com/pdf/hpan95-1.pdf

> In all likelihood they won't be able to make any sense out of it
> anyway.

My dog isn't able to make sense of it either - poor dog.
--
73, Cecil http://www.qsl.net/w5dxp

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562. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:35:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5dbd0$1_1@spool9-west.superfeed.net>
Source record: 75575
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

capolk@hotmail.com wrote:

> "John Smith" <assemblywizard@gmail.com> wrote:
>>As I have said, my posts are probably too upsetting for you, pop a
>>prozac and sit back... try to avoid the insane urges to read them...
>
> But if it doesn't work for you, why would it work for anybody else?

I suspect the same person is responsible for
both of these postings.
--
73, Cecil http://www.qsl.net/w5dxp

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563. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:43:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <S0lpe.179$8i7.11260028@news.sisna.com>
Source record: 75583

Reg:

While everyone fears a lunatic with a gun--I sleep a bit better at night knowing my fellow citizens have guns... especially the women packing 32 automatics in their purses as they walk home in the evenings and use public transportation...

Warmest regards,
John
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d84lcqcnq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
>> That's assuming that those doing (or controlling) the counting are
> honest.
>> But unfortunately, honesty doesn't seem to be valued very highly
> either.
>> There was an inner city Philadelphia precinct that had a 100% voter
> turnout
>> during a recent presidential election...
>>
>> 73,
>> Bob AD3K
>>
> Bob, it appears to be contageous. There are signs of voting corruption
> even in English politics. In the meantime 100's of thousands die
> worldwide from starvation and shortage of water, or suffer from
> withdrawal of medical supplies. The effects of 'world warming' are
> beginning to be felt. The economic wars between international oil and
> energy corporations and bankers continues unabated. A civil war in the
> US is looming with the population already armed to the teeth. Perhaps
> the Chinese will help us out if we make friends with them.
>
> But let's try to be cheerful. How's your SWR? ;o) ;o)
> ----
> Reg.
>
>

564. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:46:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <F3lpe.180$0i7.11252792@news.sisna.com>
Source record: 75580

My gawd, I am coming over to do a study of your apartment in the hopes I can get theatres and stores to implement the faraday construction--sick of fools with cell phones glued to their heads or disturbing others with "cutsie rings!"

Warmest regards,
John
<netkev@gmail.com> wrote in message
news:1118165413.190574.198090@g43g2000cwa.googlegroups.com...
>I searched the archives and found this question addressed but not
> fully. I have a verizon cell with a dual-band radio 800/1900. I get
> service everywhere except...my new apartment. Ofcourse, probably a
> typical scenario. The second I walk into the apt, the signal drops to
> nothing. Outside, I have full strength. My assumption is that it
> must
> be the construction of the building that's creating some type of
> faraday cage.
>
> The obvious solutions to my problem are:
> Buy a new phone from a different provider
> Use a land line
> Purchase a cell repeater for the 800/1900 freq (unsure which is being
> used in my area but I will find out)
> Connect an external antenna to the phone
>
> Switching providers is not an option due to the fact that I've tried
> 'em and Verizon has the best coverage in my area...w/ the exception of
> my apt.
>
> I hate the idea of having multiple phone numbers so I dont want a land
> line.
>
> I am honestly considering the cell repeater but the cost is putting me
> off. They cost around $500-700. I get the feeling this could be
> built
> for pretty cheap but I'm not an electrical engineer so ... Apparently,
> they use them in my office building for sprint since our company has a
> very large contract with them.
>
> I'd prefer to remain wireless so an external antenna, unless it's
> small
> enough to strap to my flip phone(which I have been unable to find) is
> out of the question.
>

> What about a passive antenna? I know that traditionally they are
> looked down upon and can even cause signal degradation but in my case,
> the signal is VERY strong just outside. Is it a possibility? If so,
> what size antennas should I purchase for the 800 or 1900 bands?
> Obviously, I will have to figure out which is being used in my area
> but
> there must be a simple formula for the size. Also, coaxial type,
> placement, etc?
>
> I'm using the samsung sch-i600 smartphone with windows mobile 2002 on
> the verizon cdma network. This phone is dual-band, digital. No
> amps/analog.
>
> Any other ideas?
>

565. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:46:42 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <dlmba1lv1pbt8f3prhk589le6fnmi15ork@4ax.com>
Source record: 75576

On Tue, 07 Jun 2005 12:17:43 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Reg Edwards wrote:
>> If you can't get the internal SWR meter on an Icom 735 (or similar
>> rigs) down to exactly 1:1 then either there's something wrong with the
>> tuner or with the tuner operator.

My TS870 has an menu option for setting the "good enough" SWR using
the built-in tuner. The limits can be <1.2:1 or <1.6:1.

1:1 is not an option nor is it desired. If the feedback loop was
tight enought to always try to achieve 1:1 it would probably never
stop hunting.

>
>What you say is true for roller inductor tuners, Reg,
>but most tuners have switched inductors. The perfect
>inductance may not be possible.

Nor is it required. With three reactances, coarse setting one and
varying the other two can achieve a perfect match. As I have said
many times, this may not be optimum from a loss or BW standpoint, but
you can get a match.

566. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:49:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <I6lpe.181$Gh7.11233437@news.sisna.com>
Source record: 75579
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil:

Don't get jealous and try to steal my stooges... I found 'em they are
mine! <grin>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a5dbd0$1_1@spool9-west.superfeed.net...
> capolk@hotmail.com wrote:
>
>> "John Smith" <assemblywizard@gmail.com> wrote:
>>>As I have said, my posts are probably too upsetting for you, pop a
>>>prozac and sit back... try to avoid the insane urges to read them...
>>
>> But if it doesn't work for you, why would it work for anybody else?
>
> I suspect the same person is responsible for
> both of these postings.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

567. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 17:49:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a5df32$1_1@spool9-west.superfeed.net>
Source record: 75577

Wes Stewart wrote:
> ... but you can get a match.

Apparently not, if you define a match as Reg apparently does. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

568. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:13:13 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ofoba15lpqjri0nek97v7scgcg4phrd67f@4ax.com>
Source record: 75584

On Tue, 7 Jun 2005 12:19:23 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>All my feedlines have a 9:1 SWR by design.

Really, and how is that?

569. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:16:21 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <kroba1hp876nbe9lfafbfeelr2cifdou6i@4ax.com>
Source record: 75585

On 7 Jun 2005 10:30:13 -0700, netkev@gmail.com wrote:

The C. Crane Company (see their web site) sells a cell phone whip
antenna with a magnetic mount -- stick the antenna to your metal
refrigerator or whatever and it may give you the oomph you need.

bob
k5qwg

570. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:29:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11abprmfm5ehac5@corp.supernews.com>
Source record: 75586

Cecil Moore wrote:
> Roy Lewallen wrote:

[No, I didn't. Cecil wrote the following paragraph.]
>
> We are not going to get anywhere until you admit there is 68
> joules/sec in the feedline that haven't yet made it to the load. Once
> you admit that fact, everything else will be moot.
>
I never said a word about how much energy is stored in the feedline; it's irrelevant. It's stored there during the initial charging to the steady state condition, and the same amount remains there until the steady state condition no longer exists. It's exactly like the DC charge on a capacitor or a DC current through an inductor (which, in fact, is exactly what the feedline stored energy consists of) -- it doesn't have any effect on an AC analysis.

[I did write this one.]

>> Let's try again. The source is providing 40 watts, 32 watts of
>> which is delivered to the transmission line. The transmission line
>> is transferring this 32 watts of power to the load. In the
>> transmission line, we can calculate that there's 50 watts of
>> "forward power", and 18 watts of "reverse power".
>
>
> And it is easy to prove that the source has generated 50+18=68 watts
> that have not been delivered to the load.

Surely even you can do the basic circuit analysis which shows that the source is continuously generating 40 watts, not 60. 32 of those are delivered to the load and 8 to the source resistor. I guess you mean 68 joules -- but as I said, it's irrelevant.

So I ask you: Where are
> those 68 joules/sec located during steady-state if not in the forward
> and reflected power waves? Why will 68 joules/sec be dissipated in
> the system *after* the source power is turned off?

The line's stored energy will be dissipated in either the source or load resistor or both when the source power is turned off. But we're doing a steady state analysis here.

>
> If those 68 joules/sec that have been generated by the source but not
> delivered to the load are not in the forward and reflected power

> waves, exactly where are they located? There's really no sense in
> continuing this discussion until you answer that question. Everything
> else is just a side argument.

You tell me -- they can be anywhere you'd like. Just answer the simple
questions about the power "waves".

>
> The answer to that question will expose the errors in your premises.

What exactly is my premise, please? All I've done is to give the
currents and powers at significant points in the circuit. Are any of the
values incorrect? It's you who has the premise, not me.

> You are apparently assuming there is not enough energy in the system
> during steady-state to support the forward and reflected power waves.

I'm making no such assumption. I'm questioning the existence of
traveling waves of average power, and so far you've failed to give any
evidence to convince me otherwise.

> But that exact amount of energy was supplied during the power-on
> transient state and will be dissipated during the power-off transient
> state. If it's not in the forward and reflected power waves, you are
> going to have to store it somewhere else. Where is that somewhere
> else?

You tell me. My analysis doesn't need to consider the stored energy at
all. Apparently yours does, so have at it.

> The source has supplied 68 joules/sec that has not reached the load.

I think you mean 68 joules.

> The forward and reflected power waves require 68 joules/sec.

The "forward power" is 50 watts. The "reverse power" is 18 watts. It
requires 32 watts to sustain this. That's the amount of power flowing
through the transmission line, from source to load. That's 32
joules/second, not 68. If the line were open circuited, the forward and
reverse powers would be equal, and it would take no power to sustain them.

That you
> don't see the logical connection between those two equal energy
> values is amazing.
>
> But I will get you started on an understanding of the component
> powers using an S-parameter analysis.
>

Where will you find to put those all-important 68 joules in an
s-parameter analysis? That's a steady state analysis.

>> How much of that 18 watts of reverse power is going through the
>> source resistor to reach the source to "engage in destructive

>> interference"?
>
>
> reference the S-parameter equation: b1 = s11*a1 + s12*a2
>
> I calculate 11.52 watts. (s12*a2)^2 = 11.52 watts
>

Finally, an actual answer. So of the 18 watts of "reverse power", 11.52 watts is making it to the source to "engage in constructive interference". Does any of it get dissipated in the source resistor, or does it just slide through unscathed?

> The other 6.48 watts are in (s22*a2)^2 where |a2|^2 = 18 watts

What's (s22*a2)^2? The forward power wave? The reverse power wave? If it's something else, does it have a name? Where does it go? Is it getting dissipated in the source resistor, reflected at the transmission line/resistor interface, reflected at the source/resistor interface, get radiated, or what?
>
>> What does it interfere with?
>
>
> From the S-parameter equation above, it obviously interferes with
> s11*a1 .

What's s11*a1? It must be something inside the source. The source is just that, a source. It has (AC) voltage and current, 100 volts of voltage and 0.4 amps of current. Does s11*a1 reside inside every source, or only some special ones? Apparently 11.52 watts of this s11*a1 gets cancelled by the reverse power wave. How much of it is left over?

>
> Please reference HP App Note 95-1, available on the web. It should
> answer most of your questions, in particular pages 16 & 17. |a1|^2 =
> Power incident on the input of the network |a2|^2 = Power incident on
> the output of the network |b1|^2 = Power reflected from the input
> port of the network |b2|^2 = Power reflected from the output port of
> the network

Nope.

Enough hand waving and evasion, we've been here before. [Of all the questions, the sole quantitative answer was "(s12*a2)^2 = 11.52 watts".] I'll leave you to the folks who regard this kind of gobbledegook as convincing evidence. Have fun -- I've got actual work to do while you take care of the visionary leadership part.

Roy Lewallen, W7EL

571. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:44:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kniba1ljknh6jl1h26lodqq7h1qejkom2s@4ax.com>
Source record: 75589

On Tue, 07 Jun 2005 15:01:26 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>Now the diodes resistance can be
>easily calculated but I'm not sure how to visualize it. Is this where your
>term cathode resistance enters the picture?

Hi Hank,

Getting electrons to "boil" off the cathode (or filament, same thing)
is not a simple task otherwise there would be no filaments needed.
Even with filaments, Edison current is not very considerable unless
you add a monomolecular layer of metal to the surface of either the
filament, or the cathode.

You may note that some tubes are described as having "Thoriated"
filaments. This is that monomolecular addition. Its purpose is to
lower the W, the work function of the interface.

It is far from odd how physics demonstrates at every stage and in
every discipline that interfaces where there is mismatch, there is
difficulty in transfering power. When an electron from the interior
of the metal crystal approaches the surface, it is repelled by that
interface due to the potential of the work function, and is attracted
by the bulk material behind it. The Thoriated surface offers a
matching mechanism between the bulk metal and the free space beyond
the surface. In classic Optics this is known as Index Matching.

To give examples as to how well a monomolecular addition performs:

A Tungsten filament (no treatment) offers a current density of ï¿½A/cMï¿½
This makes for a baseline.

A Thoriated Tungsten filament offers a current density of 4A/cMï¿½

Then we step back to a cylindrical cathode employing Barium.
Such a cathode offers a current density of ï¿½A/cMï¿½

That seems rather regressive to use a cathode, but temperatures are
telling. The simple Tungsten filament is operating at 2500ï¿½ K and the
cathode needs only to simmer along at 1000ï¿½ K. This gives
considerably longer life and more efficiency (most of the power for
heating is lost through radiation). Needless to say, cathodes find
more application in low power circuits, or their surfaces are treated
with other low work function metals for greater emission.

Now, when you add a potential gradient, you also lower the work
function of the surface (but it is always an advantage to have it

lowered going into this game). This is called the Schottky effect. One might be tempted to simply ask, why don't we up the voltage and discard the filament? This device would be called a Cold Cathode but the potential gradient then rises to the level where you run the risk of secondary emission.

When that electron stream strikes the plate and raises the temperature, it is just short enough power to present this secondary emission. But if we were to run at 17KV or so, then the electron stream would be so aggressive as to produce high energy effects such as X-Ray emission.

So, to return to the resistance of this all, we have physical impositions of cathode surface area (probably offering the prospect of being greater than filament surface area), current density, and potential difference. Discarding all the extraneous surface units (cMï¿½) and employing the proper division (E/I) we have a resistor that glows in the dark under extremes of operation. How this fails to be source resistance is strictly handwaving and the schematic symbolic mysticism of demanding a carbon composition resistor.

73's
Richard Clark, KB7QHC

572. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:44:46 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <fuoba1lhu16kutu4cj073joto38kem17na@4ax.com>
Source record: 75588

On Tue, 07 Jun 2005 12:22:05 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Fred W4JLE wrote:
>> All my feedlines have a 9:1 SWR by design.
>
>Heh, heh, I understand perfectly.

You do?

573. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:45:32 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <48c46$42a5eb55$97d56bb7$26865@ALLTEL.NET>
Source record: 75587

I will be sending you some photos of my final installation. I did a number of tests comparing how tight you can wind the loops. I was amazed at how non critical it was, considering all the dire warnings one receives from the old wife's tales.

Aside from all the ham bands, I have the need to get down to 3.347 MHz as well. My setup with the thumbwheel digital rotary switches lets me look at my chart, see 3.5 MHz needs 39 additional feet and set 39 in the switches, I built a box outside the house with 4 dowel rods to wind the loops around. It worked out great both mechanically and electrically.

After I inserted the relay box, I cut additional feedline off the 90 foot feedline so the output side at the end of the coax agreed with the original readings. Once that was accomplished all the plots were in agreement with the predicted except on 40 meters. Predicted should have been 7.3, actual was 6.8 MHz. Easy enough to correct for, but have not yet figured out what causes it. All other freqs were spot on.

Worst SWR is 1.8:1 I am a happy camper. On 75 an A/B test shows no difference was noted between it and a 75 meter dipole.

I need to A/B it on the other bands yet.

My method of 1,2,4,8 and 10,20,and 40 feet uses extra feed line, but is made up for in the ability to enter feet directly on the switches.

Three other folks here are constructing a duplicate.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a5d8a8$1_2@spool9-west.superfeed.net...
> Fred W4JLE wrote:
> > All my feedlines have a 9:1 SWR by design.
>
> Heh, heh, I understand perfectly. Don't know
> how many others do. :-) All my feedlines have
> an SWR between 5:1 and 13:1 by design.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
=----

574. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:52:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h5rba15pmls2a19o715aqihl6ovk0augie@4ax.com>
Source record: 75591

On Tue, 07 Jun 2005 11:44:29 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>When that electron stream strikes the plate and raises the
>temperature, it is just short enough power to present this secondary
>emission. But if we were to run at 17KV or so, then the electron
>stream would be so aggressive as to produce high energy effects such
>as X-Ray emission.

Something felt wrong here. I should have said:
...just short enough energy to present this secondary emission.

575. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 18:55:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <609b7$42a5eda5$97d56bb7$11745@ALLTEL.NET>
Source record: 75590

Of Course you are, all horror stories aside.

Don't confuse the angels dancing on the pinheads around here with practical world experiences. The best solution is to increase the length of your dipole to 130 feet and feed it with 100 foot of 450 Ohm ladderline. Connect a piece of coax with a ferrite bead choke to the 450 Ohm line. Your tuner will love you and you can use all bands from 80 on up.

The electrical plug on your rig has losses that are about as meaningful real world..

"Buck" <iam@this.site> wrote in message news:r6mba15o2ecm0flcpdhomh3fpcrguv5jgo@4ax.com...
> On Sun, 05 Jun 2005 19:21:27 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
> >Chuck Olson wrote:
> >> The tuner doesn't reduce efficiency - -
> >
> >There's no such thing as a 100% efficient tuner.
>
>
> I realize that a tuner is not 100% efficient, but when I hook up my 80
> meter dipole and listen on 20 meters (the wire is fed with coax), the
> signals are stronger when tuned thru the tuner rather than direct from
> the antenna. Not to mention that when I transmit, the radio is
> operating on reduced power with the dipole direct. I realize that
> there is considerable loss in my coax (I am using garbage and know it)
> and that I am taking a loss thru the tuner, but it is a better option
> than direct thru the coax alone.
>
> ;)
>
>
> --
> 73 for now
> Buck
> N4PGW

576. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:01:23 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3e03d$42a5ef0c$97d56bb7$12052@ALLTEL.NET>
Source record: 75592

My 132 foot dipole is fed by lengths of 450 Ohm line of lengths depending on frequency. The first part acts as a matching section to achieve 50 Ohms. This feeds an electrical 1/2 wavelength 450 Ohm section the 50 ohm impeadence is seen by the rig, while maintaning a 9:1 swr on the 1/2 wave section. 450/50=9:1

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message news:ofoba15lpqjri0nek97v7scgcg4phrd67f@4ax.com...
> On Tue, 7 Jun 2005 12:19:23 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >All my feedlines have a 9:1 SWR by design.
>
> Really, and how is that?
>

577. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:06:08 UTC
From: capolk@hotmail.com
Message-ID: <vmrba1la8c8hslt1lsmn98g9chnp17r1l1@4ax.com>
Source record: 75593
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Tue, 7 Jun 2005 10:16:43 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>While two stooges are better than one, you guys don't have a brother or
>friend you could invite--do you?

Two different responses to the same post - you've pretty much played
yourself, my friend. You should get while the gettin's good.

578. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:10:23 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <de4f0$42a5f129$97d56bb7$12609@ALLTEL.NET>
Source record: 75594

Banning abortions causes women to seek back alley coarthanger abortions.
Banning guns solves the crime problem. - From the liberal mantra

How could you possibly find anything good in allowing common citizens to
have a gun. It can only lead to crime. (See paragraph 1) :>)

"John Smith" <assemblywizard@gmail.com> wrote in message
news:S0lpe.179$8i7.11260028@news.sisna.com...
> Reg:
>
> While everyone fears a lunatic with a gun--I sleep a bit better at night
> knowing my fellow citizens have guns... especially the women packing 32
> automatics in their purses as they walk home in the evenings and use
> public transportation...
>
> Warmest regards,
> John
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:d84lcqcnq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> >
> >> That's assuming that those doing (or controlling) the counting are
> > honest.
> >> But unfortunately, honesty doesn't seem to be valued very highly
> > either.
> >> There was an inner city Philadelphia precinct that had a 100% voter
> > turnout
> >> during a recent presidential election...
> >>
> >> 73,
> >> Bob AD3K
> >>
> > Bob, it appears to be contageous. There are signs of voting corruption
> > even in English politics. In the meantime 100's of thousands die
> > worldwide from starvation and shortage of water, or suffer from
> > withdrawal of medical supplies. The effects of 'world warming' are
> > beginning to be felt. The economic wars between international oil and
> > energy corporations and bankers continues unabated. A civil war in the
> > US is looming with the population already armed to the teeth. Perhaps
> > the Chinese will help us out if we make friends with them.
> >
> > But let's try to be cheerful. How's your SWR? ;o) ;o)
> > ----
> > Reg.
> >
> >

>
>

579. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:15:43 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-16062F.12154307062005@news.newsguy.com>
Source record: 75596
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <VBkpe.173$XD6.11078764@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> ... hey, if the drugs aren't working--have you exhausted
> psychotherapy--you might consider it as an alternative therapy....
>
> John

So anybody that thinks you're a dick has to be in need of psychological
help?

That's quite a mind-fortress you've constructed for yourself, John. I
suspect that you are a very frightened individual.

Ooga Booga,
Tony

580. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:23:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4krba1pf77ldmqbde6jdh4ok1nhn4h0mva@4ax.com>
Source record: 75595

On Tue, 7 Jun 2005 17:26:50 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Perhaps the Chinese will help us out if we make friends with them.

Hi Reg,

They may even sell you back the Opium the English forced into their
market.

Do you have enough hair to tie into a queue?

It was a nice touch, though, to leave a Knight of the Realm in Hong
Kong to be that city's administrator. Think Her Highness would accept
Hu Jintao on the honours list for KBE?

73's
Richard Clark, KB7QHC

581. Re: Very small FM xmtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:52:52 UTC
From: "deneb@bobdbob.com" <deneb@bobdbob.com>
Message-ID: <1118173972.256407.43090@o13g2000cwo.googlegroups.com>
Source record: 75597

I have seen fractal antennas on printed circuit boards that might be of some use. I think the ARRL handbook included a photo of a 2m fractal antenna in the shape of a Koch snowflake; it was only a few inches long.

582. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 19:53:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <UWmpe.194$NC2.11866232@news.sisna.com>
Source record: 75603

Yes. The women never fail to make me accountable and responsible... so should women be held to the same standard... there is much here which is wrong... last I heard birth control is widely available, probably even to 12 year olds... a grown woman should be able to make use...

However, I have never lived in fear from having common citizens in possession of weapons... it is the desperate criminal who I fear with the weapon--and not having good citizens with guns to deal with him...

I don't doubt the criminal will always have a gun, I fear a gov't who denies it citizens... when a gov't becomes in fear of its' citizens something is wrong alright, and it NEVER is the majority of citizens!

Warmest regards,
John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:de4f0$42a5f129$97d56bb7$12609@ALLTEL.NET...
> Banning abortions causes women to seek back alley coarthanger
> abortions.
> Banning guns solves the crime problem. - From the liberal mantra
>
> How could you possibly find anything good in allowing common citizens
> to
> have a gun. It can only lead to crime. (See paragraph 1) :>)
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:S0lpe.179$8i7.11260028@news.sisna.com...
>> Reg:
>>
>> While everyone fears a lunatic with a gun--I sleep a bit better at
>> night
>> knowing my fellow citizens have guns... especially the women packing
>> 32
>> automatics in their purses as they walk home in the evenings and use
>> public transportation...
>>
>> Warmest regards,
>> John
>> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>> news:d84lcqcnq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> >
>> >> That's assuming that those doing (or controlling) the counting are
>> > honest.

>> >> But unfortunately, honesty doesn't seem to be valued very highly
>> > either.
>> >> There was an inner city Philadelphia precinct that had a 100%
>> >> voter
>> > turnout
>> >> during a recent presidential election...
>> >>
>> >> 73,
>> >> Bob AD3K
>> >>
>> > Bob, it appears to be contageous. There are signs of voting
>> > corruption
>> > even in English politics. In the meantime 100's of thousands die
>> > worldwide from starvation and shortage of water, or suffer from
>> > withdrawal of medical supplies. The effects of 'world warming' are
>> > beginning to be felt. The economic wars between international oil
>> > and
>> > energy corporations and bankers continues unabated. A civil war in
>> > the
>> > US is looming with the population already armed to the teeth.
>> > Perhaps
>> > the Chinese will help us out if we make friends with them.
>> >
>> > But let's try to be cheerful. How's your SWR? ;o) ;o)
>> > ----
>> > Reg.
>> >
>> >
>>
>>
>
>

583. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:00:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <h1npe.195$C21.11650153@news.sisna.com>
Source record: 75601
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

You may hold any opinion of me you care to, this is still a free country
is it not? If you seek to intimidate, control or silence me or others
you are allowed your attempts--just don't expect my compliance... you
simply fail to see how such looks insane and childish... your repeated
attempts to change that outcome are always meeting in failure... and
still you think me the cause... yes, I do find much humor in such...

However, you words decry your nature and intent... if you seek to repair
such though attack on me, or to have others blind to what is real--good
luck... I think you doomed to failure...

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-16062F.12154307062005@news.newsguy.com...
> In article <VBkpe.173$XD6.11078764@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> ... hey, if the drugs aren't working--have you exhausted
>> psychotherapy--you might consider it as an alternative therapy....
>>
>> John
>
>
>
>
> So anybody that thinks you're a dick has to be in need of
> psychological
> help?
>
> That's quite a mind-fortress you've constructed for yourself, John. I
> suspect that you are a very frightened individual.
>
> Ooga Booga,
> Tony

584. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:01:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <w2npe.196$tL1.11752473@news.sisna.com>
Source record: 75600
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

... ahh, shucks sheriff, I won't be leaving town, meet ya at the OK
Corral at high noon...

John

<capolk@hotmail.com> wrote in message
news:vmrba1la8c8hslt1lsmn98g9chnp17r1l1@4ax.com...
> On Tue, 7 Jun 2005 10:16:43 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>While two stooges are better than one, you guys don't have a brother
>>or
>>friend you could invite--do you?
>
> Two different responses to the same post - you've pretty much played
> yourself, my friend. You should get while the gettin's good.
>

585. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:01:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6btba19vis3k6ppa8j9lu1j9gpsl0k05hj@4ax.com>
Source record: 75599

On Tue, 7 Jun 2005 15:10:23 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>How could you possibly find anything good in allowing common citizens to
>have a gun. It can only lead to crime.

Hi Fred,

We guarantee the right of EVERY adult in Iraq to carry a gun - no
qualification whatever. Works like a charm doesn't it?

Think how it would transform North Korea! I would hope that in their
exuberance, crossing the DMZ, they didn't step on one of the
million-plus landmines as they came to embrace their brethren in Seoul
30 or so miles south.

73's
Richard Clark, KB7QHC

586. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:04:32 UTC
From: Andrzej XTC <xtcnow@op.pl>
Message-ID: <d84uetire1@news.onet.pl>
Source record: 75598

Try simple installation using leaky coax (radiating coax) cable.
Put some antenna at the end and set it in place where signal is ok.
Then use standard coax - next in Your apartment connect few meters of
leaky coax hidden on the floor for example.
This could help as it's common solution in buildings.
If You doesn't have any possibility to buy leaky coax /it costs
quite - about 4 Euro per meter/ then on the other side of coax from
antenna - connect another antenna - just like the first one.
Those solutions are quite cheap to test.
Good luck.

Regards
Andrzej Rusiecki

587. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:06:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <o7npe.197$NC2.11866232@news.sisna.com>
Source record: 75602

Why not just set up a "passive repeater", having one end though a window
or such...

Warmest regards,
John

<netkev@gmail.com> wrote in message
news:1118165413.190574.198090@g43g2000cwa.googlegroups.com...
>I searched the archives and found this question addressed but not
> fully. I have a verizon cell with a dual-band radio 800/1900. I get
> service everywhere except...my new apartment. Ofcourse, probably a
> typical scenario. The second I walk into the apt, the signal drops to
> nothing. Outside, I have full strength. My assumption is that it
> must
> be the construction of the building that's creating some type of
> faraday cage.
>
> The obvious solutions to my problem are:
> Buy a new phone from a different provider
> Use a land line
> Purchase a cell repeater for the 800/1900 freq (unsure which is being
> used in my area but I will find out)
> Connect an external antenna to the phone
>
> Switching providers is not an option due to the fact that I've tried
> 'em and Verizon has the best coverage in my area...w/ the exception of
> my apt.
>
> I hate the idea of having multiple phone numbers so I dont want a land
> line.
>
> I am honestly considering the cell repeater but the cost is putting me
> off. They cost around $500-700. I get the feeling this could be
> built
> for pretty cheap but I'm not an electrical engineer so ... Apparently,
> they use them in my office building for sprint since our company has a
> very large contract with them.
>
> I'd prefer to remain wireless so an external antenna, unless it's
> small
> enough to strap to my flip phone(which I have been unable to find) is
> out of the question.
>
> What about a passive antenna? I know that traditionally they are
> looked down upon and can even cause signal degradation but in my case,

> the signal is VERY strong just outside. Is it a possibility? If so,
> what size antennas should I purchase for the 800 or 1900 bands?
> Obviously, I will have to figure out which is being used in my area
> but
> there must be a simple formula for the size. Also, coaxial type,
> placement, etc?
>
> I'm using the samsung sch-i600 smartphone with windows mobile 2002 on
> the verizon cdma network. This phone is dual-band, digital. No
> amps/analog.
>
> Any other ideas?
>

588. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:14:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a60116$1_2@spool9-west.superfeed.net>
Source record: 75605

Fred W4JLE wrote:
> Once that was accomplished all the plots were in agreement with
> the predicted except on 40 meters. Predicted should have been 7.3, actual
> was 6.8 MHz. Easy enough to correct for, but have not yet figured out what
> causes it. All other freqs were spot on.

What causes it is the feedpoint impedance of a one wavelength
dipole is very high and therefore easily upset by the surroundings.
A low impedance feedpoint impedance is not easily upset by the
surroundings. It's the same concept as using a 20k ohms/volt
voltmeter to measure the cathode voltage or the screen voltage
of a tube. One will give correct results and one won't.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

589. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:16:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a6019b$1_2@spool9-west.superfeed.net>
Source record: 75607

Wes Stewart wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>Fred W4JLE wrote:
>>>All my feedlines have a 9:1 SWR by design.
>>
>>Heh, heh, I understand perfectly.
>
> You do?

Of course! The feedline Z0 equals 450 ohms. 450/9=50
Fred is using my design from:
http://www.qsl.net/w5dxp/notuner.htm
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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590. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:17:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a601ad$1_2@spool9-west.superfeed.net>
Source record: 75606

Roy Lewallen wrote:
> Cecil Moore wrote:
>> We are not going to get anywhere until you admit there is 68
>> joules/sec in the feedline that haven't yet made it to the load. Once
>> you admit that fact, everything else will be moot.
>>
> I never said a word about how much energy is stored in the feedline;
> it's irrelevant.

Do you think it is random coincidence that the amount of energy
stored in the feedline is *EXACTLY* the amount of energy required
by the forward and reflected waves???? The fact that you think
it is irrelevant is simply a flight into a wet dream fantasy.

> It's stored there during the initial charging to the
> steady state condition, and the same amount remains there until the
> steady state condition no longer exists. It's exactly like the DC charge
> on a capacitor ...

What a coincidence! It's *EXACTLY* the amount of energy required
by the forward and reflected waves that you say don't exist - and
it's RF photons, not DC, so it must travel at the speed of light!
You cannot store photons in a capacitor.

> Surely even you can do the basic circuit analysis which shows that the
> source is continuously generating 40 watts, ...

Of course, but during the power-on transient period, 68 watts is NOT
delivered to the load. Please don't make me waste my time calculating
the forward and reflected power during the power-on transient period.
When you actually do those calculations, you will agree with me that,
during the power-on transient phase, 68 watts of power has been stored
in the feedline and remains there until the power-off transient phase.
It is *EXACTLY* the amount of power required by the forward and
reflected waves.

> The line's stored energy will be dissipated in either the source or load
> resistor or both when the source power is turned off. But we're doing a
> steady state analysis here.

Which must necessarily include the energy stored in the feedline during
the power-on transient condition because it is *still there during
steady-state*. Ignoring the energy stored in the feedline during the
power-on transient phase is both irrational and illogical. It could
even be bad for your mental health.

> What exactly is my premise, please?

from my earlier posting:

>> You are apparently assuming there is not enough energy in the system
>> during steady-state to support the forward and reflected power waves.

> I'm making no such assumption.

I'm sorry, Roy, but that is just BS! Either you admit there is enough
energy to support the steady-state forward and reflected waves or you
don't.

> My analysis doesn't need to consider the stored energy at all.

And that is exactly why your analysis is wrong. You have, once again,
been seduced by the steady-state model and are spreading old wives'
tales as a result. Hopefully, you don't really want to do that.

>> The source has supplied 68 joules/sec that has not reached the load.
>
> I think you mean 68 joules.

68 joules/sec in your original example. 68 joules in my one-second-
long feedline example.

> Where will you find to put those all-important 68 joules in an
> s-parameter analysis? That's a steady state analysis.

The 68 joules were stored in the feedline during the power-on
transient phase. They are still there during steady-state. An
S-parameter analysis yields the correct results because it
includes the reflected power, |a2|^2, as an energy source,
something you deny. Wonder what the S-parameter analysis folk
know that you don't choose to admit?

> Finally, an actual answer. So of the 18 watts of "reverse power", 11.52
> watts is making it to the source to "engage in constructive
> interference". Does any of it get dissipated in the source resistor, or
> does it just slide through unscathed?

It never encounters the source resistor as it is re-reflected by
wave cancellation, not by an impedance discontinuity. I have a QEX
article coming soon that will explain the details. Stand by. With
an unprejudiced open mind, you might actually learn something.

> What's (s22*a2)^2?

Same as (1-rho^2)*Pref2 in ham terms. Reflected power from the
load that is re-reflected back toward the load by an impedance
discontinuity.

> What's s11*a1?

Same as Vfor1*rho in ham terms. Forward voltage that is reflected
back toward the source by an impedance discontinuity.

> I'll leave you to the folks who regard this kind of gobbledegook as
> convincing evidence.

Do you realize what intellectual shape you would be in if you had
adopted that attitude when you were one year old? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

591. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:17:28 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <shnpe.910861$w62.136647@bgtnsc05-news.ops.worldnet.att.net>
Source record: 75604

Richard,

This has been an entertaining monologue on electron tubes. (Must be International Fractured Physics Week on RRAA.)

I won't attempt to address the numerous howlers, since Henry seemed satisfied with your tale, but you might want to rethink the item you "correct" in this message.

Secondary electron emission also occurs at much lower incident electron energies. As a metrologist you are most likely familiar with electron microscopy. Secondary electron emission is the typical mode of detector operation. The incident electron energy in modern SEM's is now in the range of 500 to 700 volts.

One of the reasons for adding more grids in vacuum tubes is to manage secondary emission from the plate. This occurs at much less than 17 kV.

73,
Gene
W4SZ

Richard Clark wrote:
> On Tue, 07 Jun 2005 11:44:29 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>When that electron stream strikes the plate and raises the
>>temperature, it is just short enough power to present this secondary
>>emission. But if we were to run at 17KV or so, then the electron
>>stream would be so aggressive as to produce high energy effects such
>>as X-Ray emission.
>
>
> Something felt wrong here. I should have said:
> ...just short enough energy to present this secondary emission.

592. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:19:31 UTC
From: netkev@gmail.com
Message-ID: <1118175571.304488.223200@g14g2000cwa.googlegroups.com>
Source record: 75609

Yeah, my thoughts exactly. I think it won't hurt (my wallet or my phone) to try such a passive repeater. I will try and see if I can source leaky coax too. I'll let you guys/gals know how it goes.

593. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:20:36 UTC
From: netkev@gmail.com
Message-ID: <1118175636.369043.249400@g44g2000cwa.googlegroups.com>
Source record: 75608

Actually, I read a while back somewhere that a company had developed
wall paper to do specifically that. They could manufacture it for
specific freq. ranges.

594. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:26:49 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-525C1E.13264907062005@news.newsguy.com>
Source record: 75612
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <h1npe.195$C21.11650153@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> You may hold any opinion of me you care to, this is still a free country
> is it not?

Never said it wasn't.

> If you seek to intimidate, control or silence me or others
> you are allowed your attempts--just don't expect my compliance... you
> simply fail to see how such looks insane and childish... your repeated
> attempts to change that outcome are always meeting in failure... and
> still you think me the cause... yes, I do find much humor in such...

You're the only one laughing, sport.

> However, you words decry your nature and intent... if you seek to repair
> such though attack on me, or to have others blind to what is real--good
> luck... I think you doomed to failure...

You're absolutely astonishing. Nobody's attacking you. A couple of us
are sounding off because we think you're a champion asshole, but that's
really about it.

Tony

595. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:28:01 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <jrnpe.201$8n3.12005522@news.sisna.com>
Source record: 75610

LOL... I already have fallen behind times, will see if I can find a bit
to read about it... thanks...

Warmest regards,
John
<netkev@gmail.com> wrote in message
news:1118175636.369043.249400@g44g2000cwa.googlegroups.com...
> Actually, I read a while back somewhere that a company had developed
> wall paper to do specifically that. They could manufacture it for
> specific freq. ranges.
>

596. Re: Mobile Antenna Matching Question Final Melt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 20:29:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ln0ca1hk2vqlr9mfnn5geud3g28rdsp4s3@4ax.com>
Source record: 75611

On Tue, 07 Jun 2005 20:17:28 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>One of the reasons for adding more grids in vacuum tubes is to manage
>secondary emission from the plate. This occurs at much less than 17 kV.

Hi Gene,

Sure, but not X-Rays which attend Cold Cathode tubes (skipping the gas
filled tubes I've already touched upon) and do require elevated
potentials to be so useful (that they become dangerously useful).

Glad you won't attempt the other howlers.

73's
Richard Clark, KB7QHC

597. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:03:07 UTC
From: capolk@hotmail.com
Message-ID: <dr2ca11p1mrh76a03530g7p1lhophihful@4ax.com>
Source record: 75613
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

OK. That was good. Now do another one.

On Tue, 7 Jun 2005 13:01:34 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>... ahh, shucks sheriff, I won't be leaving town, meet ya at the OK
>Corral at high noon...
>
>John
>
><capolk@hotmail.com> wrote in message
>news:vmrba1la8c8hslt1lsmn98g9chnp17r1l1@4ax.com...
>> On Tue, 7 Jun 2005 10:16:43 -0700, "John Smith"
>> <assemblywizard@gmail.com> wrote:
>>
>>>While two stooges are better than one, you guys don't have a brother
>>>or
>>>friend you could invite--do you?
>>
>> Two different responses to the same post - you've pretty much played
>> yourself, my friend. You should get while the gettin's good.
>>
>

598. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:05:05 UTC
From: box0@aol.com
Message-ID: <1118178305.767819.199160@g49g2000cwa.googlegroups.com>
Source record: 75614
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

>"John Smith" wrote:
> ... if you seek to repair such though attack on me, or to have others blind to what is real--good luck... I think you doomed to failure...

Will the *real* Michael Fell *please* fall off.

wormiest regards...

599. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:05:51 UTC
From: Keith Hopkins <susskins@visi.comblock>
Message-ID: <11ac2vtd2ugs3cc@corp.supernews.com>
Source record: 75615
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-525C1E.13264907062005@news.newsguy.com...
>
> You're the only one laughing, sport.

HAHAHAHAHAHAH.

I'm a cross-posting twat!

--
Keith Hopkins
susskins@visi.comblock (clear the block to reply)
Mentioned tangentially on ARN&R!

600. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:15:13 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <B7ope.204$VJ4.12407918@news.sisna.com>
Source record: 75620
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Well then, see, the problem is that you think you must share your
opinions, observations, religions, points of view and repeat the fact
you consider me an a$$hole...

I simply want to have you to have a good time and see no harm in your
bad behavior and so indulge you... to which you petition me for redress
of your grievances which all seem to be centered about me "ceasing and
desisting", and since this is rather presuming on your part and demands
another (namely myself) indulge you--and since I have no other course
but to deny you--you continue to whine, hoping that will have an
effect... and it does, I ignore it... and so, we continue...

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-525C1E.13264907062005@news.newsguy.com...
> In article <h1npe.195$C21.11650153@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> You may hold any opinion of me you care to, this is still a free
>> country
>> is it not?
>
>
> Never said it wasn't.
>
>
>
>
>
>
>> If you seek to intimidate, control or silence me or others
>> you are allowed your attempts--just don't expect my compliance... you
>> simply fail to see how such looks insane and childish... your
>> repeated
>> attempts to change that outcome are always meeting in failure... and
>> still you think me the cause... yes, I do find much humor in such...
>
>
> You're the only one laughing, sport.
>
>
>

>
>> However, you words decry your nature and intent... if you seek to
>> repair
>> such though attack on me, or to have others blind to what is
>> real--good
>> luck... I think you doomed to failure...
>
>
> You're absolutely astonishing. Nobody's attacking you. A couple of
> us
> are sounding off because we think you're a champion asshole, but
> that's
> really about it.
>
> Tony

601. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:16:47 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <19ope.205$QE4.12396703@news.sisna.com>
Source record: 75621
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Hey, I am confused, are you Larry, Moe or Curly?

John
<capolk@hotmail.com> wrote in message
news:dr2ca11p1mrh76a03530g7p1lhophihful@4ax.com...
> OK. That was good. Now do another one.
>
> On Tue, 7 Jun 2005 13:01:34 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>... ahh, shucks sheriff, I won't be leaving town, meet ya at the OK
>>Corral at high noon...
>>
>>John
>>
>><capolk@hotmail.com> wrote in message
>>news:vmrba1la8c8hslt1lsmn98g9chnp17r1l1@4ax.com...
>>> On Tue, 7 Jun 2005 10:16:43 -0700, "John Smith"
>>> <assemblywizard@gmail.com> wrote:
>>>
>>>>While two stooges are better than one, you guys don't have a brother
>>>>or
>>>>friend you could invite--do you?
>>>
>>> Two different responses to the same post - you've pretty much played
>>> yourself, my friend. You should get while the gettin's good.
>>>
>>
>

602. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:20:12 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <2i3ca197717kdev7f90j8jun78a6lp2vib@4ax.com>
Source record: 75616

On Tue, 7 Jun 2005 15:01:23 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>My 132 foot dipole is fed by lengths of 450 Ohm line of lengths depending on
>frequency. The first part acts as a matching section to achieve 50 Ohms.
>This feeds an electrical 1/2 wavelength 450 Ohm section the 50 ohm
>impeadence is seen by the rig, while maintaning a 9:1 swr on the 1/2 wave
>section. 450/50=9:1

Because you see 50 ohm (more or less) at the input of your "450 ohm"
(more like 400 ohm) line with an arbitrary impedance at the other end,
you incorrectly conclude the 450 ohm, variable length line is
operating at 9:1.

It appears that you've copied Cecil's design (ingenious BTW) but even
he admits to anywhere from 6:1 to 13:1 on his line.

For discussion purposes let's say that a 132 foot dipole, 50' above
average ground operated on 3.5 MHz has a feedpoint Z of about 61 -j63.
That's about SWR = 7.5 using 450 ohm as a normalizing factor.

Except for the effects of loss, the SWR *everywhere* on the line is
7.5:1. You don't get to say that 1/2 wavelength of it is operating at
9:1 and some other part is operating at something else.

Change the frequency to 7 MHz and the SWR is ~10:1 and so forth.

603. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 21:42:27 UTC
From: Registered User <n4jvp@ix.netcom.com>
Message-ID: <v13ca1lt1urvjk6lpp6738cc6raqmsslf9@4ax.com>
Source record: 75617

On Sun, 05 Jun 2005 16:57:03 GMT, GeorgeF
<av8tor@licensed4funREMOVEBEFOREFLIGHT.com> wrote:

>I put up an 80 meter full wave loop using about 280ï¿½ of #14 wire in
>almost a square. Each end of the loop was soldered to an SO-239
>connector. Iï¿½m feeding the loop via RG-8 coax, about a 30ï¿½ run.
>
I have a 400 foot loop that is more triangular than square but it
still seems to work pretty well. The biggest difference between our
antennas is how they are fed. I use 450 ohm ladder-line to a balanced
tuner (Johnson Matchbox) to my FT-897D. According the Yaesu's display
a suitable match can be obtained on all bands except 30 and 60 meters.

I can also use the antenna on six meters with a homebrew matchbox for
that band. A two meter matchbox is in the works.

>Using an MFJ Antenna Analyzer I canï¿½t find a nice low SWR point. The
>lowest I can find is at 2.5 MHz, the SWR at that point is still high at
>3.4:1. In the 80 mtr band its 8:1 and in the 40 mtr band its 7:1.
>
The impedance, is that the right word?, of a loop can be several
hundred to several thousand ohms. As you have found, the antenna is
not a fifty ohm load.

>My installation is far from ideal. First, the antenna for about ï¿½ the
>loop is at about 20ï¿½ high and the second half is about 15ï¿½ high. Next,
>in the center of the loop is the metal frame work for a screen-room over
>the swimming pool (50ï¿½ x 30ï¿½) which Iï¿½m sure interacts with the loop
>antenna to some degree. The screening is not metal however the frame
>work is.
The antenna is what it is. Although a little more elevation would be
FB I wouldn't be too concerned with what is in the middle of the loop.

>
>Of course I can use my MFJ-949 tuner to get a low SWR on any band but by
>doing so am I loosing efficiency? I also notice that trying to tune the
>loop the tuner seems to be very touchy! I have noticed on 20 meters
>the loop received on average about 2 S-Units better than my 20 meter
>dipole. On 40 meters it receives almost 1 S-unit better than a 160ï¿½
>randomwire. On 80 meters just slightly better than a 160ï¿½ randomwire.
>(all antennas Iï¿½m comparing are all at about 20ï¿½ high).
>
>I would have started making the loop shorter to bring up the resonate
>frequency to 80 meters however Iï¿½m concerned as to why the lowest SWR I
>can find anywhere on the HF band is still over 3:1. Is it because the
>loop low to the ground (20ï¿½)? Or do I need a balum? 1:1 balum? 4:1

>balum? Looking for any suggestions.
>
Ack, do not shrink the loop!!!!! The tuner you have can be used with a balanced feeder, the built-in balun should be satisfactory. Try feeding your loop with 450 ohm ladder-line from the tuner and things should improve significantly.

73 de n4jvp
Fritz

604. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 22:02:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <86ca0$42a6198b$97d56bb7$23360@ALLTEL.NET>
Source record: 75618

Nonsense Wes, take the case of an antenna that is of sufficient length, height, or what ever so that at the antenna is exactly R 50 J0.

I feed it with an electrical 1/2 wave length of exactly 450 Ohm feedline. The 50 Ohms from my antenna is repeated at the other end of the feedline. An SWR bridge calibrated for 50 Ohms and my rig see 1:1.

Would you deny that the SWR on the feedline is 9:1? What is my SWR?

Can I say I have 1:1 at the ends and 9:1 anywhere on the feedline? I do get to say it!

Now if you want to argue that it will never be exactly 9:1 because the feedline is never exactly 450 Ohms, or the antenna has a reactive portion, you will have to change the subject. No generalization is valid, including mine that I have a 9:1 by design. But I suspect you already new that and decided to increase the quantity of fly crap in the pepper.

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:2i3ca197717kdev7f90j8jun78a6lp2vib@4ax.com...
> On Tue, 7 Jun 2005 15:01:23 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
> You don't get to say that 1/2 wavelength of it is operating at
> 9:1 and some other part is operating at something else.

605. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 22:07:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4c9d3$42a61aa7$97d56bb7$25582@ALLTEL.NET>
Source record: 75619
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

John, may I pass on a bit of advice my Daddy gave me as a young lad. When arguing with a jackass, make sure he is not doing the same thing.

You have allowed yourself to fall in to the teaching a pig to sing mode.

Exercising Godwins law, the guy is a Nazi.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:h1npe.195$C21.11650153@news.sisna.com...
> You may hold any opinion of me you care to, this is still a free country
> is it not? If you seek to intimidate, control or silence me or others
> you are allowed your attempts--just don't expect my compliance... you
> simply fail to see how such looks insane and childish... your repeated
> attempts to change that outcome are always meeting in failure... and
> still you think me the cause... yes, I do find much humor in such...
>
> However, you words decry your nature and intent... if you seek to repair
> such though attack on me, or to have others blind to what is real--good
> luck... I think you doomed to failure...
>
> John
>
> "Tony Elka" <shadowlane@shadowlane.com> wrote in message
> news:shadowlane-16062F.12154307062005@news.newsguy.com...
> > In article <VBkpe.173$XD6.11078764@news.sisna.com>,
> > "John Smith" <assemblywizard@gmail.com> wrote:
> >
> >> ... hey, if the drugs aren't working--have you exhausted
> >> psychotherapy--you might consider it as an alternative therapy....
> >>
> >> John
> > >
> > >
> > >
> > >
> > > So anybody that thinks you're a dick has to be in need of
> > > psychological
> > > help?
> > >
> > > That's quite a mind-fortress you've constructed for yourself, John. I
> > > suspect that you are a very frightened individual.
> > >
> > > Ooga Booga,

> > Tony
>
>

606. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 22:15:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <V%ope.214$kM6.14748842@news.sisna.com>
Source record: 75622
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Fred:

You are quite right--I thank you for your advice and caution, however, for sometime now the word "Troll" has come up--indeed, some have confused me with such... at that time I did not have a good example of a "Real Troll", here I present such to you as a proper example--I think he even brought a pet...

Warmest regards,
John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4c9d3$42a61aa7$97d56bb7$25582@ALLTEL.NET...
> John, may I pass on a bit of advice my Daddy gave me as a young lad.
> When
> arguing with a jackass, make sure he is not doing the same thing.
>
> You have allowed yourself to fall in to the teaching a pig to sing
> mode.
>
> Exercising Godwins law, the guy is a Nazi.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:h1npe.195$C21.11650153@news.sisna.com...
>> You may hold any opinion of me you care to, this is still a free
>> country
>> is it not? If you seek to intimidate, control or silence me or
>> others
>> you are allowed your attempts--just don't expect my compliance... you
>> simply fail to see how such looks insane and childish... your
>> repeated
>> attempts to change that outcome are always meeting in failure... and
>> still you think me the cause... yes, I do find much humor in such...
>>
>> However, you words decry your nature and intent... if you seek to
>> repair
>> such though attack on me, or to have others blind to what is
>> real--good
>> luck... I think you doomed to failure...
>>
>> John
>>
>> "Tony Elka" <shadowlane@shadowlane.com> wrote in message

>> news:shadowlane-16062F.12154307062005@news.newsguy.com...
>> > In article <VBkpe.173$XD6.11078764@news.sisna.com>,
>> > "John Smith" <assemblywizard@gmail.com> wrote:
>> >
>> >> ... hey, if the drugs aren't working--have you exhausted
>> >> psychotherapy--you might consider it as an alternative therapy....
>> >>
>> >> John
>> >
>> >
>> >
>> >
>> > So anybody that thinks you're a dick has to be in need of
>> > psychological
>> > help?
>> >
>> > That's quite a mind-fortress you've constructed for yourself, John.
>> > I
>> > suspect that you are a very frightened individual.
>> >
>> > Ooga Booga,
>> > Tony
>>
>>
>
>

607. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 22:38:10 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d857mr$814$1@news.service.uci.edu>
Source record: 75623

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> Finally, an actual answer. So of the 18 watts of "reverse power",
>> 11.52 watts is making it to the source to "engage in constructive
>> interference". Does any of it get dissipated in the source resistor,
>> or does it just slide through unscathed?
>
>
> It never encounters the source resistor as it is re-reflected by
> wave cancellation, not by an impedance discontinuity. I have a QEX
> article coming soon that will explain the details.

The Journal of Irreproducible Results could also be persuaded to publish that claim, Cecil. Any implication that almost half of Maxwell's equations are superfluous should easily qualify as an irreproducible result. :-)

ac6xg

608. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 23:00:02 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11ac9lj6d465ga6@corp.supernews.com>
Source record: 75624

Dear "John Smith" whoever you are:

Spot on. I have a standing offer to contribute $200 to each woman in my department who takes the concealed pistol course. Women were more safe when years ago, even in NYC, they carried.
Cell phones (with antennas) are also a good idea, but only to report a crime not prevent a crime. Mac
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"John Smith" <assemblywizard@gmail.com> wrote in message
news:S0lpe.179$8i7.11260028@news.sisna.com...
> Reg:
>
> While everyone fears a lunatic with a gun--I sleep a bit better at night
> knowing my fellow citizens have guns... especially the women packing 32
> automatics in their purses as they walk home in the evenings and use
> public transportation...
>
> Warmest regards,
> John

609. Catalog Available

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 23:22:08 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <OZppe.56081$Wr.55748@fed1read04>
Source record: 75475

High quality, but low cost, coaxial cable, connectors & adapters. Call 949 481 3154 or see www.aaarfproducts.com or email sales@aaarfproducts to receive your full line catalog.

No minimum order.

No handling charges.

Paypal & credit cards accepted.

610. Re: Catalog Available

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 23:30:03 UTC
From: Dan Richardson <k6mh>
Message-ID: <ndbca1tvm74gs72uhraavaq0o33bq1fkar@4ax.com>
Source record: 75476

On Tue, 7 Jun 2005 16:22:08 -0700, "AAA RF Products"
<info@aaarfproducts.com> wrote:

>High quality, but low cost, coaxial cable, connectors & adapters. Call 949
>481 3154 or see www.aaarfproducts.com or email sales@aaarfproducts to
>receive your full line catalog.
>
>No minimum order.
>
>No handling charges.
>
>Paypal & credit cards accepted.
>
>

Interesting. Go to the web site above, look around a bit, and then
ckick on the home tab.

Think the page needs a bit fixing.

Danny, K6MHE

611. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-07 23:39:18 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <2cqpe.102918$J25.47152@bignews6.bellsouth.net>
Source record: 75477

Skin back both ends of a piece of coax - stick one end out in the 5-bar
zone - and the other end inside the house.
might work - might not - but don't cost too much to try

<netkev@gmail.com> wrote in message
news:1118175571.304488.223200@g14g2000cwa.googlegroups.com...
> Yeah, my thoughts exactly. I think it won't hurt (my wallet or my
> phone) to try such a passive repeater. I will try and see if I can
> source leaky coax too. I'll let you guys/gals know how it goes.
>

612. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 00:38:47 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <p2eca1dpgcdf51tlm11ojqq1bagcuah6d2@4ax.com>
Source record: 75478

On Tue, 7 Jun 2005 18:02:43 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

You started with this (mis)statement:

>All my feedlines have a 9:1 SWR by design.

I challenged this crap and showed that, using your own example, this
was not the case.

You called my challenge "nonsense" and then go on to agree with my
original point:

>No generalization is valid, including
>mine that I have a 9:1 by design.

Simply amazing.

613. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 01:11:42 UTC
From: kashe@sonic.net
Message-ID: <nbhca1l8puae29tf0h36j2bs6df7fm7299@4ax.com>
Source record: 75479
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Sun, 05 Jun 2005 14:29:32 -0400, mohawky@charter.net wrote:

>On Sat, 4 Jun 2005 22:14:43 -0700, "John Smith"
><assemblywizard@gmail.com> wrote:
>
>>Tony:
>>
>>Good example of what I am trying to explain right now, is over in
>>Iraq... those are the Iraqi peoples oil wells we are/have liberated...
>>however, once again, I think we are finding the parties are NOT
>>deserving of the property liberated--I am beginning to fear, once again,
>>we may have to keep 'em... <evil grin>
>
>Do ya think that oil prices will drop if we "start" to use Iraqi oil?
>
Of course not -- we can't afford to outbid the Chinese for it.
Just like all the oil to come out of ANWAR. We'll never see a drop in
this country.

>=======================
> Tracy Barber
>-----------------------
> adirondack-pc
>-----------------------
>"Freebie Stamp Project"
>=======================

614. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 01:25:33 UTC
From: kashe@sonic.net
Message-ID: <76ica1p0cvige9ft92qobg9g1dqrdgid6a@4ax.com>
Source record: 75480

On Mon, 06 Jun 2005 11:28:25 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 6 Jun 2005 14:55:11 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>The concept of MTBF, Mean Time Between Failures, can be applied to
>>software.
>>
>>Does anyone disagree?
>
>Hi Reg,
>
>Of course. MTBF is more apropos to linear systems. For digital
>hardware, failure is dominated by either infant mortality, or old age.
>Very rarely is there a problem in between.
>
>As for software, any notion of time is utterly ridiculous. Any
>operation that successfully performed once will ALWAYS perform
>identically every time again.

How many operations are fed the identical, valid input every
time?

> There is no such thing as a time
>between failures such that the software will be reliable in between.
>That would be spooky beyond superstition.
>
>The best that you can expect from software is that if it is simple
>enough, you can trust it to do the same thing again - a Brit by the
>name of Alan Turing proved this some 60 years ago. Turing also
>offered there is no way to guarantee a program will work, unless you
>are willing to watch it for as long as it was running. For a quick
>reference, google Turing and Enigma machine.
>
>73's
>Richard Clark, KB7QHC

615. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 01:28:12 UTC
From: richardharrison@webtv.net
Message-ID: <23494-42A649AC-398@storefull-3254.bay.webtv.net>
Source record: 75482

Andrzej wrote:
"It costs quite - about 4 Euro per meter -"

Then substitute 300-ohm TV teinlead for the expensive leaky coax.
Twinlead works well in many sites to distribute 2-way VHF
communications. At UHF it just has slightly more loss, but not too much.

Best regards, Richard Harrison, KB5WZI

616. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 01:29:08 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <99c51$42a649ed$97d56bb7$12515@ALLTEL.NET>
Source record: 75481

You win Wes, pick up the marbles.

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:p2eca1dpgcdf51tlm11ojqq1bagcuah6d2@4ax.com...
> On Tue, 7 Jun 2005 18:02:43 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
> You started with this (mis)statement:
>
> >All my feedlines have a 9:1 SWR by design.
>
> I challenged this crap and showed that, using your own example, this
> was not the case.
>
> You called my challenge "nonsense" and then go on to agree with my
> original point:
>
> >No generalization is valid, including
> >mine that I have a 9:1 by design.
>
> Simply amazing.

617. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 01:52:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Sbspe.234$Jh2.17114255@news.sisna.com>
Source record: 75487
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Kashe:

I never meant to suggest we would see any oil--only that certain
individuals will get very rich from its sale... unfortunately few may
be Iraqi....

Warmest regards,
John
<kashe@sonic.net> wrote in message
news:nbhca1l8puae29tf0h36j2bs6df7fm7299@4ax.com...
> On Sun, 05 Jun 2005 14:29:32 -0400, mohawky@charter.net wrote:
>
>>On Sat, 4 Jun 2005 22:14:43 -0700, "John Smith"
>><assemblywizard@gmail.com> wrote:
>>
>>>Tony:
>>>
>>>Good example of what I am trying to explain right now, is over in
>>>Iraq... those are the Iraqi peoples oil wells we are/have
>>>liberated...
>>>however, once again, I think we are finding the parties are NOT
>>>deserving of the property liberated--I am beginning to fear, once
>>>again,
>>>we may have to keep 'em... <evil grin>
>>
>>Do ya think that oil prices will drop if we "start" to use Iraqi oil?
>>
> Of course not -- we can't afford to outbid the Chinese for it.
> Just like all the oil to come out of ANWAR. We'll never see a drop in
> this country.
>
>
>
>>=======================
>> Tracy Barber
>>-----------------------
>> adirondack-pc
>>-----------------------
>>"Freebie Stamp Project"
>>=======================
>

618. Re: Very small FM xmtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 01:57:17 UTC
From: richardharrison@webtv.net
Message-ID: <23494-42A6507D-405@storefull-3254.bay.webtv.net>
Source record: 75483

Terry C. wrote:
"It has terrible range."

There are severe limitations on unlicensed radiation. There are no regulatory restrictions on receiving antenna gain. Use a high-gain receiving antenna to extend range.

Best regards, Richard Harrison, KB5WZI

619. Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 02:12:53 UTC
From: Al Lorona <al_lorona@agilent.com>
Message-ID: <1118196774.758472@cswreg.cos.agilent.com>
Source record: 75484

Hi, Everybody,

How does one determine the correct antenna takeoff angle to communicate over a certain distance?

I can't find any references anywhere that discuss this, taking into account all of the variables: height of ionosphere, frequency, etc.

Here's a practical example of when it would be important to know this. Say you are going to put up a dipole antenna for 20 meters specifically to communicate to a friend 2000 miles away during the day. The takeoff angle of the major lobe varies widely as the antenna is raised from ground level to 1 wavelength above ground, so presumably there is a 'best' height for the antenna to put the major lobe right where it needs to be to skip to your friend's QTH.

The trouble is, we do not seem to have a good way to determine this 'best' height ahead of time. One would, I guess, have to vary the height of the antenna while the other station monitored your signal strength, and one would have to do this over several days, weeks, or months to get good, averaged data. But... isn't there a better way to do this?

Regards,

Al W6LX

620. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 02:14:30 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a65486$0$3711$39cecf19@news.twtelecom.net>
Source record: 75485

Ed Price wrote:
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42a0acff$1_2@spool9-west.superfeed.net...
>
>>John Smith wrote:
>>
>>>... how we slaughtered helpless indians with bows and arrows with our
>>>rifles...
>>
>>Custer might disagree with you on just how
>>helpless those Indians were. :-)
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>
>
>
> IIRC, the 7th was using US issue single-shot, rolling block rifles. Studies
> of the distribution of spent cartridge cases indicates that the Indians had
> quite a few Winchester repeating rifles. Further, Custer had left his
> battery of Gatling guns far behind, as he felt they slowed his maneuver
> ability.
>

I heard that Custer was at the bottom of his class at West Point, barely
made it through to graduate, and was not very good at most of the skill
sets needed to survive at being an Indian Fighting General.

tom
K0TAR

621. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 02:15:55 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a654db$0$3711$39cecf19@news.twtelecom.net>
Source record: 75486
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Tony Elka wrote:

> In article <42a2481a$1_1@spool9-west.superfeed.net>,
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>
>>I've always wanted to go back in time and take a few
>>Gatling guns back to the Alamo - and maybe a few cases
>>of hand grenades.
>
>
>
> You do realize that Texas was part of Mexico before we stole it?
>
> Tony

ALL land is stolen. Just who owns it is local historical perspective.

tom
K0TAR

622. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 02:45:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lhkca1lgkjsfaa4ms4gsq24209o9cmp026@4ax.com>
Source record: 75488

On Wed, 08 Jun 2005 01:25:33 GMT, kashe@sonic.net wrote:
>>As for software, any notion of time is utterly ridiculous. Any
>>operation that successfully performed once will ALWAYS perform
>>identically every time again.
> How many operations are fed the identical, valid input every
>time?

This is at least four questions
1. How many operations;
at least two to satisfy the statement responded to
2. identical input;
self validating, however this constraint is unnecessary
3. valid input;
what does it matter? the response is identical
4. every time
time is an illusion, a computer only knows now. This is why it ALWAYS
does the same thing. If it didn't, would you use the ATM machine?
Would you fly on a 757? Would you go on a green light?

If it didn't, would you use that voting machine again? What if they
said it was good enough and you had no choice and no paper trail?

.....

Well, the Judge smacked down the gavel yesterday and threw the
Republican's challenge out. Nothing was left to appeal on, "the law
is clear," said the Judge, "take your beef to the lawmakers...."

Unmentioned on national feed, was Rossi's whine: "Can't take this to
the Supreme court because of its political bias." Luckily his
progesterone laced complaint wasn't raised in this Republican
dominated county. After all, if you can't get a straight deal from
Olympia, what kind of shaft job did you get in your own hand-picked
court?

Too bad too. I wanted to see more action. This generation of fops
and hairless, overweight pill-poppers just doesn't have the will to
fight as much as they have motivation to jack their jaws. Many of the
right wing reports pine about how slow out of the gate this challenge
came, and how much foot dragging went on to take on a weak, Democratic
opponent. Most of those same reports offered the prospect of a
Supreme Court challenge, instead these ladies faded onto their silk
moire chaise lounges.

73's
Richard Clark, KB7QHC

623. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 02:56:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <40nca1th93qvjuhefnb831nvj0r10di1q8@4ax.com>
Source record: 75489

On Tue, 7 Jun 2005 19:12:53 -0700, "Al Lorona" <al_lorona@agilent.com>
wrote:

>Hi, Everybody,

Hi Al,

>How does one determine the correct antenna takeoff angle to communicate over
>a certain distance?

Ooooh, that's gonna sting!

>I can't find any references anywhere that discuss this, taking into account
>all of the variables: height of ionosphere, frequency, etc.

Try propagation modelers. VOACAP has been around for a good 10 years
now, with recent upgrade to VOAWIN.

>The trouble is, we do not seem to have a good way to determine this 'best'
>height ahead of time. One would, I guess, have to vary the height of the
>antenna while the other station monitored your signal strength, and one
>would have to do this over several days, weeks, or months to get good,
>averaged data. But... isn't there a better way to do this?

The better question is could you even hope to achieve this little?
Aside from having your own antenna farm, DX is a spin of the wheel and
most simply try.

Perhaps you should use the propagation modeler to investigate the
range of variation of DX paths and heights associated with what you
can throw into the air.

73's
Richard Clark, KB7QHC

624. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 03:20:45 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <6soca1lco27487rgaifjjeaf929qt1qqb3@4ax.com>
Source record: 75490

On Tue, 7 Jun 2005 14:45:32 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I will be sending you some photos of my final installation. I did a number
>of tests comparing how tight you can wind the loops. I was amazed at how non
>critical it was, considering all the dire warnings one receives from the old
>wife's tales.

Fred, any hints on winding your 450-ohm line around the wood dowels? I
have a feedline I wouldn't mind lengthening if I could do it without
loose ladderline everywhere.

bob
k5qwg

625. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 04:08:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11acrqn3l7rt5ce@corp.supernews.com>
Source record: 75491

A number of propagation programs can tell you what angle you need. One that's easy to use, reasonably accurate, and free is W6ELProp, available from http://www.qsl.net/w6elprop/.

The ideal height for the antenna is a fairly easy geometry problem, but it's easiest to let a program tell you this, too. There are a number of antenna modeling programs available, some of which are free, and all will give very accurate results. Because it's my product, I recommend the free demo version of EZNEC from http://eznec.com, which is entirely adequate for this purpose. But any number of other programs would be suitable also.

One bit of advice -- don't get hung up on the "takeoff angle" reported by some antenna analysis programs (like EZNEC). It simply means the angle at which the pattern is maximum, and isn't important for this or most situations. What counts is the field strength or gain at the angle which you'll be using for communication -- that's the angle reported by the propagation program. That's the number you want to maximize.

Roy Lewallen, W7EL

Al Lorona wrote:
> Hi, Everybody,
>
> How does one determine the correct antenna takeoff angle to communicate over
> a certain distance?
>
> I can't find any references anywhere that discuss this, taking into account
> all of the variables: height of ionosphere, frequency, etc.
>
> Here's a practical example of when it would be important to know this. Say
> you are going to put up a dipole antenna for 20 meters specifically to
> communicate to a friend 2000 miles away during the day. The takeoff angle of
> the major lobe varies widely as the antenna is raised from ground level to 1
> wavelength above ground, so presumably there is a 'best' height for the
> antenna to put the major lobe right where it needs to be to skip to your
> friend's QTH.
>
> The trouble is, we do not seem to have a good way to determine this 'best'
> height ahead of time. One would, I guess, have to vary the height of the
> antenna while the other station monitored your signal strength, and one
> would have to do this over several days, weeks, or months to get good,
> averaged data. But... isn't there a better way to do this?
>
> Regards,

>
> Al W6LX
>
>
>
>
>
>

626. Re: No Ground HF mobile antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 04:30:03 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Ooupe.63700$lQ3.29346@bignews5.bellsouth.net>
Source record: 75492

If the motor home isn't rolling down the road, try a quad :-)
If the motor home is rolling - better lower it at the underpasses.
OR one of those little magnetic loops.
-- and I think I recall someone on this group supporting something called a Fractenna, which sounds "groundless" as well.

"John" <john@lampooners.com> wrote in message
news:Xnfpe.23117$_z6.1841928@twister.southeast.rr.com...
> Hi,
>
> Looking for any ideas or info on a 'No Ground' HF antenna to mount on a
> motorhome.
>
> Thanks in advance for any assistance.
>
> John
>
>

627. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 04:47:02 UTC
From: Al Lorona <al_lorona@agilent.com>
Message-ID: <1118206023.701965@cswreg.cos.agilent.com>
Source record: 75493

Roy, thank you so much for taking the time to respond. I am going to go play with W6ELProp right away.

I am a very happy EZNEC user... this is how I am finding out the elevation angle of the major lobe, and because it's easy to 'adjust' by varying the height of the antenna, especially at a Field Day site, I want to put it up to maximize coverage of the rest of the country.

Thanks again.

Regards,

Al W6LX

P.S. I should probably start a different thread to make this comment, but I am still trying to find a good analysis program to enable simulation of an balanced-line end-fed antenna, sometimes called a Zepp. This evidently is one tough problem to solve.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11acrqn3l7rt5ce@corp.supernews.com...
> A number of propagation programs can tell you what angle you need. One
> that's easy to use, reasonably accurate, and free is W6ELProp, available
> from http://www.qsl.net/w6elprop/.
>
> The ideal height for the antenna is a fairly easy geometry problem, but
> it's easiest to let a program tell you this, too. There are a number of
> antenna modeling programs available, some of which are free, and all
> will give very accurate results. Because it's my product, I recommend
> the free demo version of EZNEC from http://eznec.com, which is entirely
> adequate for this purpose. But any number of other programs would be
> suitable also.
>
> One bit of advice -- don't get hung up on the "takeoff angle" reported
> by some antenna analysis programs (like EZNEC). It simply means the
> angle at which the pattern is maximum, and isn't important for this or
> most situations. What counts is the field strength or gain at the angle
> which you'll be using for communication -- that's the angle reported by
> the propagation program. That's the number you want to maximize.
>
> Roy Lewallen, W7EL
>
> Al Lorona wrote:
> > Hi, Everybody,
> >
> > How does one determine the correct antenna takeoff angle to communicate

over
> > a certain distance?
> >
> > I can't find any references anywhere that discuss this, taking into
account
> > all of the variables: height of ionosphere, frequency, etc.
> >
> > Here's a practical example of when it would be important to know this.
Say
> > you are going to put up a dipole antenna for 20 meters specifically to
> > communicate to a friend 2000 miles away during the day. The takeoff
angle of
> > the major lobe varies widely as the antenna is raised from ground level
to 1
> > wavelength above ground, so presumably there is a 'best' height for the
> > antenna to put the major lobe right where it needs to be to skip to your
> > friend's QTH.
> >
> > The trouble is, we do not seem to have a good way to determine this
'best'
> > height ahead of time. One would, I guess, have to vary the height of the
> > antenna while the other station monitored your signal strength, and one
> > would have to do this over several days, weeks, or months to get good,
> > averaged data. But... isn't there a better way to do this?
> >
> > Regards,
> >
> > Al W6LX
> >
> >
> >
> >
> >
> >

628. Re: No Ground HF mobile antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 04:53:03 UTC
From: richardharrison@webtv.net
Message-ID: <11715-42A679AF-522@storefull-3251.bay.webtv.net>
Source record: 75494

John wrote:
"Looking for any ideas on a "No Ground" HF antenna to mount in a motorhome."

John must want an antenna which needs no physical connection to the earth. Any balanced antenna requires no physical connection to the earth. Also, many unbalanced antennas have no physical connection to the earth but use the motorhome as a ground return for the antenna.

How about a screwdriver HF mobile antenna?

A wire suspended above the motorhome can turn it into a loop antenna. Phil Rand, W1DBM, now an SK, did this to his RV with good results which were published in QST and one of the ARRL Antenna Compendiums. I don`t remember which issues.

Best regards, Richard Harrison, KB5WZI

629. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 06:26:22 UTC
From: nm5k@wt.net
Message-ID: <1118211982.912301.307130@g43g2000cwa.googlegroups.com>
Source record: 75495

Why bother, unless you're having a problem with the heat? 20% loss is
just about exactly 1 dB.

That's 1 db I'd rather keep to myself...Why give it away if it's
not required? If you pump up the power, heat will likely be a
problem. But saying that, I'd rather avoid the tuner altogether...
MK

630. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 06:42:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ad4qb7r3csb42@corp.supernews.com>
Source record: 75496

I don't know of any program better than EZNEC for this. (Most others are just as capable.) You have to realize that the feedline is an integral part of the antenna, so it must of course be part of the model. Because it radiates, you have can't use the program's transmission line models, but have to include the feedline as wires. Depending on the length and orientation of the feedline, there might also be significant current flowing from the rig to the Earth via whatever path it can take, and this is also part of the antenna and must be included in the model if the model is going to predict the antenna performance.

Just becuase we call one part of the radiating system an "antenna", another a "feedline" and another "ground" doesn't give them magical properties and prevent them from radiating. All can be part of the radiating antenna system and, in the case of a Zepp, generally are.

Roy Lewallen, W7EL

Al Lorona wrote:
> P.S. I should probably start a different thread to make this comment, but I
> am still trying to find a good analysis program to enable simulation of an
> balanced-line end-fed antenna, sometimes called a Zepp. This evidently is
> one tough problem to solve.

631. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 07:11:39 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118214699.875847.154330@g14g2000cwa.googlegroups.com>
Source record: 75497

i was talking about this u-strip antenna
http://export.farnell.com/productimages/farnell/standard/42265868.jpg
,where the center pad is the feed but has no ground pad (the other pads
are for mounting),here is the datasheet:
http://rocky.digikey.com/WebLib/Yageo%20America/Web%20Data/4313-118-00918.pdf
so, when you mount it to the pcb and connect it to a microstrip line
for example, the antenna ground (internal) will not be connected to the
circuit's ground
http://www.geocities.com/aezzat3/antenna.jpg
so , this means that the ciircuit's ground will radiate and not all the
power will be fed to the antenna. is that right?
Regards

632. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 08:08:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ad9s4l42fu74d@corp.supernews.com>
Source record: 75498

The key here is the "Suggested layout" diagram in the .pdf file. The transmitter ground is connected to the ground plane, so the 50 ohm microstrip line is one conductor of the feedline and the upper surface of the ground plane is the other. There will be very little radiation from the feedline because return current will flow on the ground plane directly beneath the top side trace.

Right at the antenna is the only place where the microstrip line will physically move away from the ground plane -- the other conductor of the feedline. So only that part will radiate. Typically, you'd have a conductor which goes vertically straight up from the end of the microstrip line to the patch. Only that very short part of the feed system will radiate.

Roy Lewallen, W7EL

redhat wrote:
> i was talking about this u-strip antenna
> http://export.farnell.com/productimages/farnell/standard/42265868.jpg
> ,where the center pad is the feed but has no ground pad (the other pads
> are for mounting),here is the datasheet:
> http://rocky.digikey.com/WebLib/Yageo%20America/Web%20Data/4313-118-00918.pdf
> so, when you mount it to the pcb and connect it to a microstrip line
> for example, the antenna ground (internal) will not be connected to the
> circuit's ground
> http://www.geocities.com/aezzat3/antenna.jpg
> so , this means that the ciircuit's ground will radiate and not all the
> power will be fed to the antenna. is that right?
> Regards
>

633. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 09:52:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d86f57prm1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75499

With mobile verticals what is ALWAYS forgotten about is that the car body is just as much a part of the radiating system as the antenna.

The body is just the lower half of a somewhat off-centre-fed, mishaped, vertical dipole.

It is ridiculous to describe its operation in such laymen's terms, but the body radiates as much useful power as the antenna itself. And it is fed with coax whereas, according to perfectionists, to prevent radiation from the feedline, it ought to be off-centre fed with 450-ohm ladderline. But from wherever it supposedly comes radiation is never wasted.

I've often thought of modelling a mobile loaded whip in a computer program. Input data would include body dimensions and height above ground. With a lot of patience you could do it with an EZNEC type of program.

Reg, G4FGQ

634. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 10:52:46 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118227966.106043.239370@g47g2000cwa.googlegroups.com>
Source record: 75500

Thanks for your reply. what about this patch antenna
http://rocky.digikey.com/WebLib/Toko/Web%20Data/DAK1575MS50T.pdf
it has a feed pin at the center, the ground is the whole area around
the pin , they say it has an adhesive tape for ease in mounting to the
ground plane , is this adhesive tape a good conductor so that it
connects the antenna ground to the circuit's ground or what? so,in the
pcb design should i make a rectangular copper area under this antenna
connected to the ground?
Regards,
Redhat

635. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 11:02:09 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <5_-dnWHwv6h4UjvfRVn-gQ@bright.net>
Source record: 75501

Another problem I see is that the altitude of reflection probably varies
a lot, so, day to day, it might not matter too much about the exact
takeoff angle...

Scott
N0EDV

Al Lorona wrote:

> Hi, Everybody,
>
> How does one determine the correct antenna takeoff angle to communicate over
> a certain distance?
>
> I can't find any references anywhere that discuss this, taking into account
> all of the variables: height of ionosphere, frequency, etc.
>
> Here's a practical example of when it would be important to know this. Say
> you are going to put up a dipole antenna for 20 meters specifically to
> communicate to a friend 2000 miles away during the day. The takeoff angle of
> the major lobe varies widely as the antenna is raised from ground level to 1
> wavelength above ground, so presumably there is a 'best' height for the
> antenna to put the major lobe right where it needs to be to skip to your
> friend's QTH.
>
> The trouble is, we do not seem to have a good way to determine this 'best'
> height ahead of time. One would, I guess, have to vary the height of the
> antenna while the other station monitored your signal strength, and one
> would have to do this over several days, weeks, or months to get good,
> averaged data. But... isn't there a better way to do this?
>
> Regards,
>
> Al W6LX
>
>
>
>
>
>

636. Re: Very small FM xmtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 11:09:24 UTC
From: "deneb@bobdbob.com" <deneb@bobdbob.com>
Message-ID: <1118228964.064673.21300@g43g2000cwa.googlegroups.com>
Source record: 75502

Whether you're violating the FCC's rules depends on what you mean by "terrible," and how "effective" you plan on making your transmitter. If you've got a transmitter that is designed to work in a car, and you want it to work at home, it's very likely that you can extend the transmit range to cover the area of your house without breaking any rules. If you are talking about setting up a little broadcast station for your neighborhood, well, that's a different story.

I don't know if the FCC requires type acceptance (in other words, prohibits you from tinkering with the transmitter by principle) for these fm wireless gadgets. This is the case with FRS; in particular, you're not allowed to crack open your radio and attach a quarter wave vertical. You might want to check on that, too.

You can mire through all of the FCC's rules on their web site. But I would still love to know if those fractal antennas work. :)

637. Elevated radial length?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 11:24:53 UTC
From: K4ia <k4ia@cox.net>
Message-ID: <aAApe.28651$iU.5809@lakeread05>
Source record: 75503

I believe the length of buried radials is not that critical (bigger/more = better) and one size fits all bands. Within reason, subject to all the normal caveats, etc.

But what about elevated radials? Does anyone know Hustler's recommendation for elevated radials on their BTV series of verticals?

I suspect they want a pair of "tuned" radials on each band when elevated because that is what I have always seen. I am curious what Hustler says and what the group opines.

k4ia
Buck
Fredericksburg, VA

638. Re: Elevated radial length?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 11:56:56 UTC
From: Dave <noone@nowhere.com>
Message-ID: <kvednRPVyviTQDvfRVn-oA@crocker.com>
Source record: 75504

the more and the longer the better of course! the perfect situation is an infinite perfectly conducting plane. failing that it is up to you to figure out how much wire you can suspend and how long you can make it. keep in mind that the highest current density for the return currents (and hence the most chance for losses) is near the base of the vertical, so a good screen in close is a good investment. under my 80m elevated 4-square i have one elevated radial that is 1/4 wave, but then under it on the ground i have 150' of 4' wide 2x4 galvanized fence in a cross pattern (100' from the center of the 4-square radially out under each vertical then a 50' piece at 90 degrees to that one under each vertical.). under my 160m raised inverted L's i have 8 radials that are about 1/4 wave long. both of these work well, though if i was being a perfectionist and thought i could keep more wire in the air i would add more.

"K4ia" <k4ia@cox.net> wrote in message
news:aAApe.28651$iU.5809@lakeread05...
> I believe the length of buried radials is not that critical (bigger/more =
> better) and one size fits all bands. Within reason, subject to all the
> normal caveats, etc.
>
> But what about elevated radials? Does anyone know Hustler's
recommendation
> for elevated radials on their BTV series of verticals?
>
> I suspect they want a pair of "tuned" radials on each band when elevated
> because that is what I have always seen. I am curious what Hustler says
and
> what the group opines.
>
> k4ia
> Buck
> Fredericksburg, VA
>
>

639. Re: Elevated radial length?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 11:59:43 UTC
From: richardharrison@webtv.net
Message-ID: <26396-42A6DDAF-22@storefull-3251.bay.webtv.net>
Source record: 75505

Buck wrote:
"But what about elevated radials?"

Just like 1/2 of an elevated center-fed dipole, the element length should be 1/4 wavelength for resonance with the other element(s). The open-circuit at the far end appears at the feedpoint as a low impedance.

Best regards, Richard Harrison, KB5WZI

640. Re: Very small FM xmtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 14:11:00 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <U%Cpe.10359$KQ2.2030@trnddc08>
Source record: 75506

deneb@bobdbob.com wrote:
> Whether you're violating the FCC's rules depends on what you mean by
> "terrible," and how "effective" you plan on making your transmitter. If
> you've got a transmitter that is designed to work in a car, and you
> want it to work at home, it's very likely that you can extend the
> transmit range to cover the area of your house without breaking any
> rules. If you are talking about setting up a little broadcast station
> for your neighborhood, well, that's a different story.
>
> I don't know if the FCC requires type acceptance (in other words,
> prohibits you from tinkering with the transmitter by principle) for
> these fm wireless gadgets. This is the case with FRS; in particular,
> you're not allowed to crack open your radio and attach a quarter wave
> vertical. You might want to check on that, too.
>
> You can mire through all of the FCC's rules on their web site. But I
> would still love to know if those fractal antennas work. :)
>

Making the assumption that the "built-in FM transmitter" is the FM broadcast band and the device falls under the Part 15 unlicensed emitter rules, the FCC does not allow tampering with the antenna. To wit:

[Code of Federal Regulations]
[Title 47, Volume 1]
[Revised as of October 1, 2004]
From the U.S. Government Printing Office via GPO Access
[CITE: 47CFR15.203]

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TITLE 47--TELECOMMUNICATION

CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION

PART 15_RADIO FREQUENCY DEVICES--Table of Contents

Subpart C_Intentional Radiators

Sec. 15.203 Antenna requirement.

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be

replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sec. 15.211, Sec. 15.213, Sec. 15.217, Sec. 15.219, or Sec. 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Sec. 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

[54 FR 17714, Apr. 25, 1989, as amended at 55 FR 28762, July 13, 1990]

641. Re: FA: My items on e-bay....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 14:25:45 UTC
From: Alex <alex_on_5th@aol.com>
Message-ID: <42A6FF92.5C509847@aol.com>
Source record: 75507

Part of Ebay rules for membership is not to SPAM usenet !

Now if the guy was auction/buy it now cushcraft ma5v,
then his post is valid.

Sice he has no antenna in his fa/fs/bin listings, he is
not following the ebay t & c he agreed to as a member.

John wrote:

> ohh no, ebay is going to start policing and protecting usenet now...
> what is the world coming to--I thought they would just have their hands
> full just attempting to hold auctions...
>
> John
> "george" <george_by@bygeorge.com> wrote in message
> news:42A382B8.3069970B@bygeorge.com...
> > Reported to Ebay for spamming usenet.
> >
> > No antenna on ebay FA for k8cpa.
> >
> > geo
> >
> > me wrote:
> >
> >> http://cgi3.ebay.com/ws/eBayISAPI.dll?ViewUserPage&userid=k8cpa
> >>
> >> Paypal welcomed and prefered....
> >>
> >> 73 de Chuck - K8CPA
> >

642. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 14:27:26 UTC
From: richardharrison@webtv.net
Message-ID: <20866-42A7004E-38@storefull-3252.bay.webtv.net>
Source record: 75508

Al Lorona wrote:
"How does one determine the correct antenna takeoff angle to communicate over a certain sistance?"

Solve the trigonometry / geometry problem involving the target distance and height of the reflecting layer.

King, Mimno and Wing in "Transmission Lines, Antennas, and Wave Guides"say:
Elevation angles above 3-degrees are useful because they are not immediately absorbed by earth loss. Low-angle radiation (above 3-degrees) makes a long distance trip to a distant receiver with the fewest hops or bounces between the ionosphere and earth. At 3-degree elevation, the distance per hop is about 3.500 km (2.100 miles). longer distances are automatically broken up into units not exceeding 3.500 km. Multipath transmission often exists and causes fading.

For distances less than 3,500 km, elevation angles of more than 3-degrees must be used. Often the antenna radiates a broad vertical pattern. In any case, the useful ray becomes steeper as the receiver becomes closer to the transmitter.

Kraus in edition No. 3 of "Antennas" shows how earth reflection affects the pattern and impedance of a horizontal antenna. At 1/2-wavelength elevation, the antenna has maximum radiation at 30-degrees over perfect earth and the center-fed 1/2-wave horizontal dipole has a feedpoint of 73 ohms. The Zepp should have about the same vertical maximum radiation angle but its impedance is something else.

Elevation angle is an inverse function of antenna height.

Best regards, Richard Harrison, KB5WZI

643. Re: Elevated radial length?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:00:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8716r$oe2$3@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75509

Just to add a little to Richard's quite correct advice.

A single well-elevated 1/4-wave radial has a resistive input impedance of very roughly 25 ohms. It is, in effect, a horizontal 1/4-wave antenna and forms, with a 1/4-wave vertical, a bent half-wave dipole which will radiate just as efficiently as a straight wholely vertical dipole. The radiation pattern, of course, will be different.

With two or more equi-distributed radials the radiation pattern changes again and the resistive impedance presented to the base of the antenna reduces still further.

When the height of radials above ground is of the order of 1/10th of their length the resonant length begins to decrease. So when the radials are lying on the surface of the ground the propagation velocity is about only half of the free space value. Consequently, to maintain the 1/4-wave resonant length, their physical length should be reduced.

On the other hand, when the radials are lying on the ground surface, ground loss damps down resonance and dimensions are no longer very critical. A collection of surface radials can be of various lengths. They can be investigated/selected by using a hand-held antenna analyser.

Shallow-buried radials, in average sorts of soils, are practically non-resonant and their lengths can be reduced without detriment to small fractions of the free-space wavelength.

The attenuation at HF along buried radials is quite high. There is not much point in having radials longer than the distance at which very little current is flowing in them.

For the behaviour of buried radials in various soils see program RADIALS2 from website below.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

644. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:00:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8716r$oe2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75510

> Give me a break, Reg. Download it for free and enjoy from:
>
> http://www.sss-mag.com/pdf/hpan95-1.pdf
>
> > In all likelihood they won't be able to make any sense out of it
> > anyway.
>
==========

I gave you a break. The whole lot of it is nothing but Scattering parameters. Might be fine for SHF and above. Useless for mobile matching at HF. As predicted I couldn't understand one line of it. I doubt if anybody except the several authors have ever worked right through it. Have you? (2 smileys).

It's mid-day here. There's not a drop of wine in the house.

Your old pal, Reg.

645. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:07:51 UTC
From: Buck <iam@this.site>
Message-ID: <kjrda1hvra7mlpgg8i2db4tc1r8m8qfki5@4ax.com>
Source record: 75511

On Tue, 7 Jun 2005 14:55:25 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Of Course you are, all horror stories aside.
>
>Don't confuse the angels dancing on the pinheads around here with practical
>world experiences. The best solution is to increase the length of your
>dipole to 130 feet and feed it with 100 foot of 450 Ohm ladderline. Connect
>a piece of coax with a ferrite bead choke to the 450 Ohm line. Your tuner
>will love you and you can use all bands from 80 on up.
>
>The electrical plug on your rig has losses that are about as meaningful real
>world..
>

Thanks for the encouragement and antenna.

I have two dipoles up right now. One is a 20 meter mono-bander that
was setup specifically for 20 meters and to test a test design for a
PVC 'cobra head' (whatever the generic name).

The other is a piece made of junk that I put up using parts I already
had available. (#14 electrical wire, PVC insulators and TV Coax). It
started as a 20 meter dipole, I added 40 and then 80 meters. It
wasn't supposed to be anything but a temporary antenna until I made a
new one, but weather, timing and money won't cooperate with me. I
have patched and patched it. Ice tore down one leg this winter and
destroyed half the PVC insulators I was using for spacers. Yesterday I
rewired the PL-259, cut the connection to the wires and re-wired it
and cut off the 40 and 20 meter elements. It tunes and hears much
better now.

I have always wanted antennas that would cover all bands without a
tuner. This was practical as a novice when all I could work was 80,
40, 15, and 10 meters. Three parallel dipoles hanging from one
antenna feed worked well. When I advanced to General, I used two
parallel dipoles and an antenna switch. (CW: 80, 40-15, 20, &10; and
SSB: 75, 40, & 10).

Today, my idea isn't as practical as it was. I now have a rig that
covers 160-6 meters on one HF connector. That's eleven bands!!
That's a lot of parallel dipoles on a feed even with the bands split
up into two antennas.

I acquired an antenna tuner recently and it tunes very quickly. I
still don't like it, but I can operate anywhere from 160-6 meters on

it (not that I have heard anyone on 6 yet.)

I would like to build a portable antenna using 300 ohm TV- twin lead
for the feed for the tuner. Is there a recommended length and feed
point for all bands?

Thanks

Buck
N4PGW

--
73 for now
Buck
N4PGW

646. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:13:19 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ebe26$42a70b10$97d56bb7$25471@ALLTEL.NET>
Source record: 75512

If you would send me an e-mail so I can get your address, I will send you some photos. Are you on broadband or dial up?

"Bob Miller" <NOSPAM@neosoft.com> wrote in message news:6soca1lco27487rgaifjjeaf929qt1qqb3@4ax.com...
> On Tue, 7 Jun 2005 14:45:32 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >I will be sending you some photos of my final installation. I did a number
> >of tests comparing how tight you can wind the loops. I was amazed at how non
> >critical it was, considering all the dire warnings one receives from the old
> >wife's tales.
>
> Fred, any hints on winding your 450-ohm line around the wood dowels? I
> have a feedline I wouldn't mind lengthening if I could do it without
> loose ladderline everywhere.
>
> bob
> k5qwg
>
>

647. Re: Elevated radial length?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:36:05 UTC
From: richardharrison@webtv.net
Message-ID: <5206-42A71065-44@storefull-3254.bay.webtv.net>
Source record: 75514

Dave wrote:
"The more and longer the better of course!"

Increases cost and wind loading.

If the ground plane is high above the earth, it isn`t required to hide the earth from the radiator to prevent displacement current flow loss in the earth.

If I recall the story, George Brown, the inventor of the ground plane antenna wanted to use only two opposing 1/4-wave radials in his antenna, but was persuaded by the RCA marketing department to use four.

The extent of the ground plane affects the radiation pattern. See Figure 21-10 on page 720 of the 3rd edition of "Antennas" by Kraus.

The imnfinite ground plane (soild line) has its maximum radiation at zero-degrees or toward the horizon. !/2-wave radials (dotted line) produces a slight elevation above the horizontal, but there`s not much difference in field strength at the angle if the ground plane is infinite or has 1/2-wave radials.

If you were a medium wave broadcaster, you would want the infinite ground plane. Brown, Lewis and Epstein at RCA determined the number of ground radials needed for very high efficiency long ago.

Best regards, Richard Harrison, KB5WZI

648. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:40:10 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e3598$42a7115b$97d56bb7$26487@ALLTEL.NET>
Source record: 75513

I can send you a copy of a program I wrote. It is based on Cecil's work. You can put in the length of the dipole you want to use, the frequency, and type of feed line. It gives you the choice of giving you the length of feedline for that single case, or a start and stop frequency in which case it prints out a chart of frequency vs. total length.Add jumpers to make up the difference above 80 feet and your good to go!

For portable operation a 130 foot dipole fed with 80 feet of 300 Ohm to a small piece of Plexiglas and two sets of banana jacks would allow you to put jumpers of various lengths into the jacks. The second set goes to the rig via a convenient length of 50 ohm coax with a choke balun of ferrites. Lengths of 1,2,4, and 8 foot would allow you to make up jumpers to enable 75 meters from 3.8 to 4 and all the other bands with the exception of 60 meters.

It can be made smaller if your only interested in 40 and up etc. Easy to carry, no tuner and worst swr around 1.7:1

For example a 2 foot jumper would put you at 4.0, and a series of an 8,2, and 1 jumper for 3.8

"Buck" <iam@this.site> wrote in message
news:kjrda1hvra7mlpgg8i2db4tc1r8m8qfki5@4ax.com...
>
> I would like to build a portable antenna using 300 ohm TV- twin lead
> for the feed for the tuner. Is there a recommended length and feed
> point for all bands?
>
> Thanks
>
> Buck
> N4PGW
>
> --
> 73 for now
> Buck
> N4PGW

649. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:45:30 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <tg4ea1doisrk11ks4vq49ck2nl2enaarmh@4ax.com>
Source record: 75515

On Wed, 8 Jun 2005 11:13:19 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>If you would send me an e-mail so I can get your address, I will send you
>some photos. Are you on broadband or dial up?

I'm on cable modem broadband, Roadrunner. My address is
rmiller47@satx.rr.com

Thanks much,

Bob
k5qwg

>
>
>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:6soca1lco27487rgaifjjeaf929qt1qqb3@4ax.com...
>> On Tue, 7 Jun 2005 14:45:32 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >I will be sending you some photos of my final installation. I did a
>number
>> >of tests comparing how tight you can wind the loops. I was amazed at how
>non
>> >critical it was, considering all the dire warnings one receives from the
>old
>> >wife's tales.
>>
>> Fred, any hints on winding your 450-ohm line around the wood dowels? I
>> have a feedline I wouldn't mind lengthening if I could do it without
>> loose ladderline everywhere.
>>
>> bob
>> k5qwg
>>
>>
>

650. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:52:21 UTC
From: Buck <iam@this.site>
Message-ID: <tq2ea1h7v83jue8ff8ckt9djasiiuipki0@4ax.com>
Source record: 75516

On 7 Jun 2005 04:35:50 -0700, pw342@hotmail.com wrote:

>If the total power output of the transmitter is not improved(ie, at <
>2:1 SWR), then using the tuner to reduce SWR to 1:1 is counter
>productive, isn't it?

My IC-706 MKII says it starts reducing power "about" 2:1 SWR. However, it actually starts at somewhere between 1.3:1 and 2:1 depending on the band you are operating. I wouldn't use a tuner at 1.5:1 just to trim an antenna, i would just trim the antenna and not worry about it.

I have a tuner, a TT 247. It is a good tuner and tunes quickly. However, I really don't like tuners. To me there are three uses for a tuner, 1) emergency use with a makeshift antenna (or field antenna, etc.), 2) making a coral reef, and 3) not being able to have my antenna of choice for each band.

--
73 for now
Buck
N4PGW

651. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 15:57:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ee72$42a71553$97d56bb7$13439@ALLTEL.NET>
Source record: 75517

I guess you could buy one of those square cars like the Scion to make the modeling easier.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d86f57prm1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> With mobile verticals what is ALWAYS forgotten about is that the car

652. Re: No Ground HF mobile antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:12:35 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2079f$42a718f5$97d56bb7$32284@ALLTEL.NET>
Source record: 75518

I knew there was some reason I liked you Hal...

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:Ooupe.63700$lQ3.29346@bignews5.bellsouth.net...
> -- and I think I recall someone on this group supporting something called
a
> Fractenna, which sounds "groundless" as well.

653. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:14:44 UTC
From: richardharrison@webtv.net
Message-ID: <5207-42A71974-13@storefull-3254.bay.webtv.net>
Source record: 75520

Dave C wrote:
"Skin back how far on the ends of the coax?"

I suspect the idea was to make a quick coaxial fipole at each end of the coax.

One removes 1/4-wave of the plastic jacket at each end. Then one carefully pulls the coax metal braid back over the remaining jacket as far as it will go. You now have a coax 1/2-wave center-fed dipole at the end of the coax where completed.

With a 1/2-wave dipole in a high-signal area directly connected to a 1/2-wave antenna in a low-signal area, energy is transferred from high to low. Try it. It is cheap and it may work.

Best regards, Richard Harrison, KB5WZI

654. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:20:21 UTC
From: Buck <iam@this.site>
Message-ID: <3i6ea1pbu1de2uk36209pjrcuiv759oag6@4ax.com>
Source record: 75519

On Tue, 7 Jun 2005 15:51:51 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>If you can't get the internal SWR meter on an Icom 735 (or similar
>rigs) down to exactly 1:1 then either there's something wrong with the
>tuner or with the tuner operator.
>
>The tuner either works or it doesn't. There's no half-way house.
>Without a tuner anything can happen. And it usually does.
>
>There are far too many sleepless nights unnecessarily caused by the
>SWR meter not being in the right imagined ballpark. Just ask
>yourselves is the transmitter loaded with roughly 50 ohms or isn't it.
>The SWR on the feedline hardly matters two hoots - the so called SWR
>meter doesn't measure it anyway.
>
>Do G5RV addicts realise that under even the best conditions the SWR on
>the feedline is as high as 10-to-1 regardless of what the meter says.
>But it doesn't seem to worry them.
>----
>Reg.
>

I know I'll be corrected if I am wrong, but if I am correct, the SWR
is high (actually varies by band) on the feedline for the G5RV. The
twin lead portion doesn't have the losses the coax does with that SWR
so more of the signal gets to the antenna than it would if it were
just coax going to a twenty meter dipole.

--
73 for now
Buck
N4PGW

655. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:24:09 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <aMdcuHFpuxpCFAZx@ifwtech.co.uk>
Source record: 75522

Reg Edwards wrote:
>
>> Give me a break, Reg. Download it for free and enjoy from:
>>
>> http://www.sss-mag.com/pdf/hpan95-1.pdf
>>
>> > In all likelihood they won't be able to make any sense out of it
>> > anyway.
>>
>==========
>
>I gave you a break. The whole lot of it is nothing but Scattering
>parameters. Might be fine for SHF and above. Useless for mobile
>matching at HF.

"Useless" only in the sense of being unnecessarily complicated and
inconvenient to use. But not incorrect!

ALL valid methods will give the same correct result, if they are applied
correctly. That's how we confirm that a method is valid - by checking
its results for a series of test problems that can be solved by other
methods too.

Roy has posed a test problem that is very easy to understand, and can be
solved unambiguously by simple arithmetic. Solving it using S-parameters
will take time and some depth of understanding, but we can be confident
that they WILL give exactly the same result in the end.

The challenge for Cecil is to make his own theory do the same.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

656. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:35:37 UTC
From: Buck <iam@this.site>
Message-ID: <ef7ea1drt6tug0qrf70rva518gbmro3qfg@4ax.com>
Source record: 75521

On Tue, 07 Jun 2005 15:16:47 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Wes Stewart wrote:
>
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>
>>>Fred W4JLE wrote:
>>>>All my feedlines have a 9:1 SWR by design.
>>>
>>>Heh, heh, I understand perfectly.
>>
>> You do?
>
>Of course! The feedline Z0 equals 450 ohms. 450/9=50
>Fred is using my design from:
>http://www.qsl.net/w5dxp/notuner.htm

Can the 17 and 10 meter bands be tuned to a better match or are they
compromised so the antenna doesn't need additional matching sections?

--
73 for now
Buck
N4PGW

657. W5DXP's No-Tuner antenna and tv twin-lead

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:42:27 UTC
From: Buck <iam@this.site>
Message-ID: <km7ea1t2ubkc6l9ko4j7f56qd2vp161r7m@4ax.com>
Source record: 75523

I have read several articles that show how this antenna works. The
450 ohm twin lead matches the antenna by wavelength (or some fraction
thereof.) I am wondering if this same concept can be successfully
used with 300 ohm tv twin lead.

It would be interesting to know if some small contraption could be
made to carry one around for a portable operation successfully.

Just curious.

Buck
--
73 for now
Buck
N4PGW

658. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 16:52:01 UTC
From: Buck <iam@this.site>
Message-ID: <k58ea11bjn63qoqhfavn2slms81vku7tvq@4ax.com>
Source record: 75524

Pardon me while I learn from this discussion.

The 450 ohm antenna is designed to be tuned by using exactly 1/2
electrical wave lengths to match both the transmitter and antenna.
This should mean that any differing feedline should work equally as
well (except for the losses) if I am correct....

On Tue, 7 Jun 2005 18:02:43 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I feed it with an electrical 1/2 wave length of exactly 450 Ohm feedline.
>The 50 Ohms from my antenna is repeated at the other end of the feedline. An
>SWR bridge calibrated for 50 Ohms and my rig see 1:1.

--
73 for now
Buck
N4PGW

659. Re: W5DXP's No-Tuner antenna ... was... Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 17:13:54 UTC
From: Buck <iam@this.site>
Message-ID: <ca9ea1ljtiao8il24qkakp7m2keg2afofu@4ax.com>
Source record: 75375

Thank you,

Is this the same program here: http://www.qsl.net/w5dxp/notuner.htm ?

I have been looking at this awhile and wonder if the SWR on 17 and 10
meters can be better tuned by adding an additional 1/2 foot section.

It probably doesn't matter at that SWR.

another question related to the antenna:

Do you think this would work? Instead of switching the lead in and
out, could the leads be tapped at each band according to the matched
setting? So that instead of a series of knife switches, a double-pole
multi-throw switch could be used to select a band or frequency for
use?

Thanks again, gears are turning in my head again...
;)

73 for now
Buck

On Wed, 8 Jun 2005 11:40:10 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I can send you a copy of a program I wrote. It is based on Cecil's work. You
>can put in the length of the dipole you want to use, the frequency, and type
>of feed line. It gives you the choice of giving you the length of feedline
>for that single case, or a start and stop frequency in which case it prints
>out a chart of frequency vs. total length.Add jumpers to make up the
>difference above 80 feet and your good to go!
>
>For portable operation a 130 foot dipole fed with 80 feet of 300 Ohm to a
>small piece of Plexiglas and two sets of banana jacks would allow you to
>put jumpers of various lengths into the jacks. The second set goes to the
>rig via a convenient length of 50 ohm coax with a choke balun of ferrites.
>Lengths of 1,2,4, and 8 foot would allow you to make up jumpers to enable 75
>meters from 3.8 to 4 and all the other bands with the exception of 60
>meters.
>
>It can be made smaller if your only interested in 40 and up etc. Easy to
>carry, no tuner and worst swr around 1.7:1
>
>For example a 2 foot jumper would put you at 4.0, and a series of an 8,2,
>and 1 jumper for 3.8

--
73 for now
Buck
N4PGW

660. Solarcon A-99 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 17:18:37 UTC
From: Buck <iam@this.site>
Message-ID: <pu9ea1t7ec39keqts0h9ip5r8oip3ntfn7@4ax.com>
Source record: 75376

I recently acquired a Solarcon A99 antenna (at no cost). I have been trying unsuccessfully to find more information about it other than it can be used on the ham bands with an antenna tuner (and a few bands without?)

I am hoping to find some instruction manuals, the design and the cut-away view of the antenna. Others have suggested this information is available on google, but I haven't found it yet.

Thank you for any help.

--
73 for now
Buck
N4PGW

661. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 17:33:13 UTC
From: netkev@gmail.com
Message-ID: <1118251993.499951.68750@g43g2000cwa.googlegroups.com>
Source record: 75377

Thanks guys, I'm definitely going to try this with the "300-ohm TV twinlead" coax, suggested above.

662. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 17:53:23 UTC
From: netkev@gmail.com
Message-ID: <1118253203.141826.83080@g44g2000cwa.googlegroups.com>
Source record: 75378

>From this post, it looks like I'm going to be peeling back 1/4 of the
800mhz wave length. VZW apparently uses 800mhz only in southern
california.
http://groups-beta.google.com/group/alt.cellular.verizon/browse_thread/thread/dbfb76113458aeac/7b6990e159424da8?q=%22southern+california%22&rnum=2&hl=en#7b6990e159424da8

663. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 17:57:21 UTC
From: dplatt@radagast.org
Message-ID: <11aecc1ct8frua5@corp.supernews.com>
Source record: 75379

In article <d86f57prm1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>,
Reg Edwards <g4fgq,regp@ZZZbtinternet,com> wrote:

>With mobile verticals what is ALWAYS forgotten about is that the car
>body is just as much a part of the radiating system as the antenna.
>
>The body is just the lower half of a somewhat off-centre-fed,
>mishaped, vertical dipole.

Some people refer to mobile verticals as "short tuned counterpoises,
working with a large untuned radiator".

>I've often thought of modelling a mobile loaded whip in a computer
>program. Input data would include body dimensions and height above
>ground. With a lot of patience you could do it with an EZNEC type of
>program.

There are probably some not-quite-obvious gotchas to be considered.

I've observed that a significant number of vehicles (e.g. my Ford
Aerostar minivan) don't weld the body panels to the frame. Instead,
the side panels and roof are _glued_ to the framework using a
structural adhesive, and there's no DC connection at these points...
just a capacitive one (probably with high capacitive reactance).
There's DC continuity in some places, but not at all contact points.

Depending on how the vertical is grounded to the vehicle (to the
panels, to the frame, or to both), the RF "ground" currents are likely
to vary quite a bit.

Similar issues are likely to exist in recent-model cars which have a
lot of fiberglass or other composite-plastic panels and structure.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

664. Re: W5DXP's No-Tuner antenna and tv twin-lead

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 18:06:04 UTC
From: dplatt@radagast.org
Message-ID: <11aecsc21usnl3a@corp.supernews.com>
Source record: 75380

In article <km7ea1t2ubkc6l9ko4j7f56qd2vp161r7m@4ax.com>,
Buck <iam@this.site> wrote:

>I have read several articles that show how this antenna works. The
>450 ohm twin lead matches the antenna by wavelength (or some fraction
>thereof.) I am wondering if this same concept can be successfully
>used with 300 ohm tv twin lead.

Sure, although the actual feedline lengths needed to achieve a match
will be different than would be the case using 450-ohm feedline.

>It would be interesting to know if some small contraption could be
>made to carry one around for a portable operation successfully.

No doubt. What one would need, I think, would be a set of different
pre-cut segments of feedline (binary powers-of-two multiples of 6",
perhaps - 6" 1' 2' 4' etc.), with preinstalled snap- or screw-together
connectors. Banana plugs/jacks might work but I'd be concerned that
the weight of the feedline might tend to pull 'em apart... something
with screws, bolts, alligator clips, etc. might work better. You
could keep each length of twinlead rolled up and labeled with its
length.

However, I think this might not work out as well in practice as you
might think. If you're operating portable, you'll probably be putting
up your antenna in locations you haven't operated before, with
unpredictable combinations of supports. Differences in the antenna
height, shape (flattop vs. inverted-V vs. bent-all-over-the-place
horror), length, and the influence of ground conductivity and nearby
objects are going to make the antenna's feedpoint impedance difficult
to predict, and thus you may find yourself needing to raise and lower
it several times, and try different combinations of feedline segments,
in order to get an acceptable match.

For multiband portable/emergency antenna use, I'd probably just go
with an as-long-as-practical wire doublet, enough 300-ohm twinlead to
reach the ground from the expected operating height, and a small
T-match tuner with a current balun on the output. Probably less
hassle, quicker to set up and operate, and it wouldn't necessarily
take up any more space than a collection of different-length twinlead
segments with their connectors.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
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boycott any company which has the gall to send me such ads!

665. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 18:15:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <dBGpe.29$t56.1919105@news.sisna.com>
Source record: 75382

I was actually thinking of a pair of biquad antennas, each at opposite lengths of a run of coax--sufficient length to place one biquad outside at a favorable location to hit a cell tower.
This is an example of a biquad I am speaking of:
http://www.nec2.org/wlan.htm

Once you have assembled your parts, should be able to get one up and going in short time...

Warmest regards,
John
<netkev@gmail.com> wrote in message
news:1118165413.190574.198090@g43g2000cwa.googlegroups.com...
>I searched the archives and found this question addressed but not
> fully. I have a verizon cell with a dual-band radio 800/1900. I get
> service everywhere except...my new apartment. Ofcourse, probably a
> typical scenario. The second I walk into the apt, the signal drops to
> nothing. Outside, I have full strength. My assumption is that it
> must
> be the construction of the building that's creating some type of
> faraday cage.
>
> The obvious solutions to my problem are:
> Buy a new phone from a different provider
> Use a land line
> Purchase a cell repeater for the 800/1900 freq (unsure which is being
> used in my area but I will find out)
> Connect an external antenna to the phone
>
> Switching providers is not an option due to the fact that I've tried
> 'em and Verizon has the best coverage in my area...w/ the exception of
> my apt.
>
> I hate the idea of having multiple phone numbers so I dont want a land
> line.
>
> I am honestly considering the cell repeater but the cost is putting me
> off. They cost around $500-700. I get the feeling this could be
> built
> for pretty cheap but I'm not an electrical engineer so ... Apparently,
> they use them in my office building for sprint since our company has a
> very large contract with them.
>
> I'd prefer to remain wireless so an external antenna, unless it's
> small

> enough to strap to my flip phone(which I have been unable to find) is
> out of the question.
>
> What about a passive antenna? I know that traditionally they are
> looked down upon and can even cause signal degradation but in my case,
> the signal is VERY strong just outside. Is it a possibility? If so,
> what size antennas should I purchase for the 800 or 1900 bands?
> Obviously, I will have to figure out which is being used in my area
> but
> there must be a simple formula for the size. Also, coaxial type,
> placement, etc?
>
> I'm using the samsung sch-i600 smartphone with windows mobile 2002 on
> the verizon cdma network. This phone is dual-band, digital. No
> amps/analog.
>
> Any other ideas?
>

666. Re: Masthead TV amplifier - VCR interference

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 18:17:15 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <8ZadnUtxvPu0qzrfRVn-tA@comcast.com>
Source record: 75381

<qbc@dwaf.gov.za> wrote in message
news:1118151810.414451.27340@g47g2000cwa.googlegroups.com...
> Please help,
>
> I installed a second TV set and a 2-way splitter. The signal was then
> slightly too weak and I installed a UHF/VHF 25 dB masthead amplifier. I
> have only a UHF antenna so I turned the VHF amplification all the way
> down. The splitter is at the end of a fairly long antenna (20m?) cable.
> I receive analog television.
>
> I have a very good, clear signal on both TV sets but there is a slight
> problem with my VCR.
>
> I feed the antenna signal through the VCR to the TV. The TV channels
> are tuned to the antenna signal and I tuned one TV channel to the VCR
> output signal. I have a DVD player on the TV AV input. The VCR output
> signal shows many thin, faint, horisontal, equally spaced (5mm?),
> slowly scrolling lines across the screen on all channels. I don't
> remember seeing the lines on a previously recorded playback. This
> interference appeared when I installed the amplifier. I tried turning
> the amplification down but it does not seem to make a difference. I
> also see the lines when the VCR channel is selected and the TV menu is
> active, that is, with no received picture displayed.
>
> The VCR is not on the DC-pass output of the splitter.
>
> What should I do? Will a TV trap filter help?
>
> Flip
>
> Pretoria
>
You might try an experiment. Temorarily disconnect the DVD player, and then
connect the VCR output to the TV A/V input. What you are doing now puts two
sets of filters in tandem. If the A/V input plays better, you can get an A/V
2 way switch to select between the DVD player and VCR.

Is there some reson you don't just have the VCR in pass through mode, and
tune with the TV? Unfortunately, I am doing what you are, except that it is
through the AV input, because the tuner in the TV does not work. The picture
is not as good as it was with the TV tuner, probably because the VCR has
less bandwidth, even though it is a JVC Super VHS VCR.

Note that if you have some local stations, and some weak stations, you may
be overloading the preamp. Here in the US there is a problem with TV Channel

6, which is adjacent to the FM broadcast band

Tam/WB2TT

667. FA: BNC to SMA Coaxial adapters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 18:37:14 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <uVGpe.5018$6s.1058@fed1read02>
Source record: 75383

Please view at:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=7522161862&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

668. Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 19:15:56 UTC
From: dg <dan_gus@hotmail.com>
Message-ID: <MtHpe.1562$Z44.989@newssvr13.news.prodigy.com>
Source record: 75384

I don't want to say any more than I have to about this, I don't want to contaminate the answer. Lets just say 2 people disagree about something. I am trying to keep it simple.

Lets take for example a simple piece of coax. 1 center conductor, 1 outer braid. The cable is carrying AC in the RF range to an antenna. Why coax?

Do you think the outer braid could be correctly referred to as a "shield"?

Thanks,
--Dan

669. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 19:23:50 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <iffea15oc7ek2kt5jb1hmspqkvup0je4tt@4ax.com>
Source record: 75385

On Wed, 08 Jun 2005 12:52:01 -0400, Buck <iam@this.site> wrote:

>Pardon me while I learn from this discussion.

Hold on Buck.

So far there has been very little "learning" to be done from this discussion.

I dislike getting personal but I strongly suggest that you reject anything Fred has put forth. Some of what he says is correct, but for the most part you are being led astray. Since you don't yet have the skills to separate the good from the BS, the safest thing to do is ignore it all.

For example he has suggested that an all-band antenna can be nothing more than a 130' dipole fed through 100' of 450 ohm line to which you connect a 50 ohm coax and "your rig will be happy."

Let's examine this premise, shall we.

If you don't already have it, download the free version of EZNEC.

www.eznec.com

If you have MS Excel do the following. If you don't skip down below the dotted line.

Download the program XLZIZL.xls at:

http://www.qsl.net/ac6la/xlzizl.html

Using EZNEC set up a frequency sweep, for example 3.5 to 4.0 MHz in 50 KHz steps and check Microsmith Files as an output and give a file name ("80meter" for example)

"Build" the 130' long antenna in the wires menu, add a source in the middle and do the frequency sweep. (I used a height of 50' and 12 AWG wire)

Open xlzizl.xls and select the "ZIZL" worksheet if it isn't already active. "Press" the "Clear all freq..." button (near cell A25). Press the "Read file for Freq, R, X" button (near cell D25). Navigate to the file location where you specified the Microsmith files be located. The default is in the Smith subdirectory in the EZW directory. Select the file "80meter.gam" and open it.

The calculated data will populate the Frequency, R at load and X at load cells.

Press the "Refresh and show Smith" button (near cell I28). The Smith chart will open and display the calculated impedance data for the 130' antenna operated from 3.5 to 4.0 MHz.

Now we are going to add a transmission line. Select the "ZIZL" worksheet again and press the "Set via Dialog" button (near cell A34).

The "Network definition" window will open with "Element position 1" selected by default. Change it to "5". Under "Element type" select Transmission line.

Under "Qualifier" scroll the dropdown menu to either "Generic 450 ohm window" or if you more more realistic numbers you can select one of the Wireman Ladder line types. (Ignore "wet" ones.)

Mouse down to the "Element Value" area an type in "100" for the length and press the "Set This Element" button and then close the Network definition window.

Press the Refresh and show Smith Chart button and you will now see two traces, the original "load" data and the feedpoint data at the input to the 100' transmission line. If you know anything about Smith charts you will immediately notice that the match is worse at the input of the line than it was at the antenna. So much for the "magic" 100' length that Fred proposes.

Going back to the ZIZL sheet and looking in the "results" area you can see that at 3.5 MHz the SWR is 36:1. Without the "magic" 100' of ladderline, the SWR is 3:1.

You can repeat this exercise at different frequency ranges and see just how awful this idea is.

Let's continue...

Assume that your 50-ohm coax is 50' long. Go back to the Network "Set via Dialog" button. Accept the "1" default for Element Position and again select Transmission Line for Element Type. For Qualifier, let's use Belden 9258 (RG8X), although you can use what you use.

Set the length to 50' and press "Set this Element." Close the window.

Press the Refresh and show Smith button and you will now see three traces on the chart: the load, the impedance at the inut of the 450 ohm line and the impedance at the input of the 50 ohm line.

Return to the ZIZL sheet and under results note that the SWR at 3.5 MHz is down to "only" 17:1. This is what your rig is going to see. Also note that the network loss (the line loss) is over 3 dB.

Now just for giggles, let's take out the 100' of ladderline and make the whole 150' run out of RG8X. You can just highlight the cells "G34 through G36" and delete them and then select cell C36 and type in 150 and tab out. Press "F9" and see the new results.

The 3.5 MHz SWR is now 2.4:1 and the total network (line) loss is 1.2 dB. So replacing the "low loss" ladderline with "lossy" coax improved the match and lowered the loss.

I don't know how much of this "magic" I can stand.

****

If you don't have Excel there is a more labor intensive method that is just as accurate.

Go to

http://www.qsl.net/ac6la/tldetails.html

and download the program and open it.

Select a transmission line type, "Generic 450 ohm Window" for example. The line parameters will populate the boxes to the right. Under Set Frequency, type in 3.5.

Run EZNEC one frequency at a time, beginning with 3.5 MHz. Look at the source data and note the Impedance R and X values. Pay attention to the sign of X.

Copy these values to "R" and "X" in the TLdetails program. Remember the sign of X. For example I used R = 61, X = -64.

In the "results" area under "At Input" you can see the R and X values at the input and note that the SWR in the 450 ohm line is about 7:1 and in the 50 ohm feeder Fred would have you connecting at this point the SWR is as before ~36:1.

If you want to "add" the 50 ohm line, copy down the R and X at the input (132, -470) and enter them in the the R and X boxes above. Change the line type to Belden 9258 and the length to 50 feet and as above, the SWR at the input is ~17:1.

To summarize:

There are ample free tools to work these problems out without relying on bafflegab. You don't have to take my word or anyone else's; work the problem yourself and learn something while doing it.

670. Re: Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 19:37:27 UTC
From: dplatt@radagast.org
Message-ID: <11aei7nd62aci90@corp.supernews.com>
Source record: 75386

In article <MtHpe.1562$Z44.989@newssvr13.news.prodigy.com>,
dg <dan_gus@hotmail.com> wrote:

>I don't want to say any more than I have to about this, I don't want to
>contaminate the answer. Lets just say 2 people disagree about something. I
>am trying to keep it simple.
>
>Lets take for example a simple piece of coax. 1 center conductor, 1 outer
>braid. The cable is carrying AC in the RF range to an antenna. Why coax?

Coax has a nice property. When used as directed, it carries RF on its
center conductor and on the inside of its outer braid/shield/conductor
(equal currents, opposite direction at any given point in the coax).
There is little or no RF current on the outside of the braid/shield,
and the EM fields created the current flow on the conductors are
confined to the inside of the coax.

This has a number of advantages. Very little of the RF escapes the
coax (there's a small amount of leakage for single-braid coax, less
for double-braid, and very little indeed for hardline). This reduces
the potential for RF interference to nearby devices. Very little
external RF can leak into the cable. Because the RF fields are
confined to the inside of the cable, you can route coax right next to
or through metal objects (pipes, other cables, chickenwire in a stucco
wall, etc.) without the presence of this metal affecting the RF. Coax
cables with a solid dielectric hold the center and outer conductors at
a consistent distance, which doesn't change very much when you bend
the coax (within reason), and this means that the cable doesn't tend
to suffer from severe impedance "bumps" when bent or coiled.

The convenience of coax does come at a price. The geometry and
physics of a concentric-conductors cable tends to require that the
cable have a relatively low characteristic impedance. This can result
in higher losses per foot, in some cases, than could be achieved using
various configurations of two- or four-conductor balanced line (given
appropriate impedance matching at both ends).

>Do you think the outer braid could be correctly referred to as a "shield"?

It's often referred to by that term. It's common to see coaxial
cables referred to as "double-shielded" or "quad-shielded". Sometimes
two layers of braid are used, sometimes two or more layers of braid
are interspersed with metal-foil or metallized-plastic-film layers.

If you really want fun, get involved in the discussions about the pros
and cons of various shield configurations for cables used in

multiple-frequency duplex operations (e.g. amateur-radio and other
repeater systems). Receiver desensitization, intermodulation and
noise from within the cable become... well, let's say "interesting"...
in those applications.

--
Dave Platt <dplatt@radagast.org> AE6EO
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671. Re: Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 19:40:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8RHpe.44$8I2.3100784@news.sisna.com>
Source record: 75387

The run to my ant tower is a bit over 100 ft, this is coax, underground
in a 1 in plastic pvc conduit--try that with another feedline...

Warmest regards,
John
"dg" <dan_gus@hotmail.com> wrote in message
news:MtHpe.1562$Z44.989@newssvr13.news.prodigy.com...
>I don't want to say any more than I have to about this, I don't want to
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> outer braid. The cable is carrying AC in the RF range to an antenna.
> Why coax?
>
> Do you think the outer braid could be correctly referred to as a
> "shield"?
>
> Thanks,
> --Dan
>

672. Re: Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 20:33:31 UTC
From: dg <dan_gus@hotmail.com>
Message-ID: <vCIpe.25882$J12.11020@newssvr14.news.prodigy.com>
Source record: 75388

Thanks for the writeup.

So, does the braid actually SHIELD or is it a consistent way to ensure interference will cross both conductors? And along the same line of thought, from the signal point of view on the inside of the cable everything is kind of even because of the equal current-opposite direction? I am going to contaminate my simple question by saying that I feel the braid is almost incorrectly referred to as a shield-it is a functioning conductor necessary for the signal to pass.

Also, how about this, reverse the polarity of the AC signal on the input of the coax. Any difference on the performance of the cable? I mean, if its AC the "shield" is carrying the same AC that the center conductor is right? I know the world of RF is like black magic, I'm trying to keep this basic.

Any thoughts or comments are welcome.

THANKS!
--Dan

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11aei7nd62aci90@corp.supernews.com...
> In article <MtHpe.1562$Z44.989@newssvr13.news.prodigy.com>,
> dg <dan_gus@hotmail.com> wrote:
>
>>I don't want to say any more than I have to about this, I don't want to
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>>Lets take for example a simple piece of coax. 1 center conductor, 1 outer
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>
> Coax has a nice property. When used as directed, it carries RF on its
> center conductor and on the inside of its outer braid/shield/conductor
> (equal currents, opposite direction at any given point in the coax).
> There is little or no RF current on the outside of the braid/shield,
> and the EM fields created the current flow on the conductors are
> confined to the inside of the coax.

673. Re: Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 20:58:37 UTC
From: dplatt@radagast.org
Message-ID: <11aemvttmhqh8e9@corp.supernews.com>
Source record: 75389

In article <vCIpe.25882$J12.11020@newssvr14.news.prodigy.com>,
dg <dan_gus@hotmail.com> wrote:

>Thanks for the writeup.
>
>So, does the braid actually SHIELD or is it a consistent way to ensure
>interference will cross both conductors?

Yes.

It performs both functions. It actually does provide a shielding, due to the "skin effect" - RF resists flowing _through_ the body of a conductor, and prefers to flow along its surface. It's very difficult for RF to flow from the inner surface to the outer surface, as it would have to travel through the thickness of the outer conductor.

That's probably the stronger factor in the interference resistance of a coax. There's also some which comes from the symmetrical shape, I'd guess, but I don't think it's anywhere near as much of an issue.

> And along the same line of
>thought, from the signal point of view on the inside of the cable everything
>is kind of even because of the equal current-opposite direction?

Yup.

> I am going
>to contaminate my simple question by saying that I feel the braid is almost
>incorrectly referred to as a shield-it is a functioning conductor necessary
>for the signal to pass.

This is not an either-or sort of situation. In a single-shielded coax, the braid (or hardline) performs both functions. It's a fully-functioning conductor, and it also acts as a shield which confines the signal to the inside of the coax. It's a floor wax *and* a dessert topping!

Single-shielded cables can be somewhat "leaky" - the shielding efficiency is not 100% if the outer conductor is not a solid, unbroken surface. That's the reason why many cables are multiply-shielded... the fields/current that leak out through the inner shields are confined by the outer ones. In cables such as this, the inner shields/braids/foils will be carrying almost all of the RF current, and providing a lot of the shielding efficiency. The outer shields will be carrying very little RF current - almost the only thing that these outer shields do, is provide additional shielding.

At the other end of the spectrum are the so-called "leaky" coaxes,
which are deliberately designed with incomplete shields and which can
be counted on to "leak" a certain percentage of their RF energy out
into free space over a specific distance. These are often used to
couple RF into underground spaces (e.g. tunnels), along railroad
tracks, and so forth.

>Also, how about this, reverse the polarity of the AC signal on the input of
>the coax. Any difference on the performance of the cable? I mean, if its
>AC the "shield" is carrying the same AC that the center conductor is right?

As far as the behavior of a given length of coax (away from the ends)
is concerned, there's no difference at all. The RF is AC and has no
polarity.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

674. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 21:02:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d87mdm$68i$1@news.service.uci.edu>
Source record: 75390

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> It can easily be shown that 300 joules of energy have been
>>> generated that have not been delivered to the load, i.e.
>>> those 300 joules of energy are stored in the feedline.
>>
>>
>> Not easy if t < 2 sec. :-)
>
>
> Of course, my statement is related to steady-state. I don't
> see anything worth responding to, Jim. Where's the beef?

The problem is that there should only be a 1 second lapse of time between the beginning of gozinta at 100 Joules/sec and the beginning of comezouta at 100 Joules/sec. At what point is the additional 2 seconds worth of energy fed into the system?

73, AC6XG

675. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 21:16:06 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <a0jea156ujnit1vivkktf7o5j2aqmq8k1n@4ax.com>
Source record: 75391

On Wed, 08 Jun 2005 12:23:50 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:
[snip}

>Under "Qualifier" scroll the dropdown menu to either "Generic 450 ohm
>window" or if you more more realistic numbers you can select one of
>the Wireman Ladder line types. (Ignore "wet" ones.)

This should of course read, "...if you want more realistic..."

676. Re: Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 21:24:32 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <FaSdndkFSPGQ_zrfRVn-hA@comcast.com>
Source record: 75392

"dg" <dan_gus@hotmail.com> wrote in message
news:MtHpe.1562$Z44.989@newssvr13.news.prodigy.com...
>I don't want to say any more than I have to about this, I don't want to
>contaminate the answer. Lets just say 2 people disagree about something.
>I am trying to keep it simple.
>
> Lets take for example a simple piece of coax. 1 center conductor, 1 outer
> braid. The cable is carrying AC in the RF range to an antenna. Why coax?
>
> Do you think the outer braid could be correctly referred to as a "shield"?
>
> Thanks,
> --Dan
>
Dan,
Basically, the differrence between coax and shielded cable is that coax will
have a controlled characteritic impedance. Shielded wire will hava a
characteristc impedance, but it is not specified. Shielded wire is normally
terminated in an impedance that is orders of magnitude higher than the wire
impedance, and people who use it are more concerned about its capacitance in
PF/foot.

Tam/WB2TT

677. Re: Location of focus of feed horn?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 21:41:29 UTC
From: Russ Renaud <va3rr@yahoo.ca>
Message-ID: <EsWdnfrkmJqU-zrfRVn-pQ@teksavvy.com>
Source record: 75393
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

DaveC wrote:
> On Sun, 5 Jun 2005 07:46:42 -0700, Russ Renaud wrote
> (in article <cvWdnWHFbr_MjT7fRVn-sQ@teksavvy.com>):
>
>
>>So, you place the phase center of your replacement feed at the same
>>point as the DTV horn's phase center.
>
>
> One more question:
> For a bi-quad, is the phase center located at the plane of the element (the
> bent wire)?

Chapter 6-2 shows the phase center of the NBS dual-dipole feed to be .25 wavelength behind the dipoles, and around the same for a quadloop feed.

I suspect the phase center for the biquad is something similar.

678. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-08 21:50:59 UTC
From: Al Lorona <al_lorona@agilent.com>
Message-ID: <1118267461.121261@cswreg.cos.agilent.com>
Source record: 75394

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20866-42A7004E-38@storefull-3252.bay.webtv.net...
>
> King, Mimno and Wing in "Transmission Lines, Antennas, and Wave
> Guides"say:
> Elevation angles above 3-degrees are useful because they are not
> immediately absorbed by earth loss. Low-angle radiation (above
> 3-degrees) makes a long distance trip to a distant receiver with the
> fewest hops or bounces between the ionosphere and earth. At 3-degree
> elevation, the distance per hop is about 3.500 km (2.100 miles). longer
> distances are automatically broken up into units not exceeding 3.500 km.
> Multipath transmission often exists and causes fading.
>
> For distances less than 3,500 km, elevation angles of more than
> 3-degrees must be used. Often the antenna radiates a broad vertical
> pattern. In any case, the useful ray becomes steeper as the receiver
> becomes closer to the transmitter.
>
> Kraus in edition No. 3 of "Antennas" shows how earth reflection affects
> the pattern and impedance of a horizontal antenna. At 1/2-wavelength
> elevation, the antenna has maximum radiation at 30-degrees over perfect
> earth and the center-fed 1/2-wave horizontal dipole has a feedpoint of
> 73 ohms. The Zepp should have about the same vertical maximum radiation
> angle but its impedance is something else.
>
> Elevation angle is an inverse function of antenna height.
>
> Best regards, Richard Harrison, KB5WZI
>

Hi, Richard,

Yeah, your reference sounds about right. On Roy's suggestion, I downloaded W6ELprop and was shocked to find what the elevation angles are for even moderate path lengths. For example, I ran the path from Albuquerque to Philadelphia and was amazed to find that the signal would have to leave the antenna and reflect from the F layer at a 4 degree angle!! That's darn near parallel to the reflecting surface! This is far, far lower than I had ever thought. Most antennas have radiation at this angle, of course, but it is usually way down from the main lobe.

Even for double-hop contacts, I believe that the angle was something like 8 or 10 degrees for that same path, but I don't remember exactly right now.

You cite that a 1/2-wave-high horizontal antenna has a maximum lobe at 30 degrees. Starting at Albuquerque, that 30 degrees will get you only to about Oklahoma City on the first hop. Again, this surprised me. Believe me, I am becoming disabused of my previous erroneous notions.

These numbers are all for 40 meters and below. If the horizontal antenna in question is operated on a higher frequency, there's no guarantee (if I am reading the data in W6ELprop correctly) that a 30 degree incident angle will be reflected at all.

I tend to grow jaded upon hearing east coast stations (I am in Los Angeles) on 40, but now I will appreciate the physics necessary to make such a thing possible.

I am also going to have to put up my Field Day antenna much, much higher than previously thought.

Regards,

Al W6LX

679. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:19:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a78c19$1_1@spool9-west.superfeed.net>
Source record: 75395

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> It never encounters the source resistor as it is re-reflected by
>> wave cancellation, not by an impedance discontinuity. I have a QEX
>> article coming soon that will explain the details.
>
> The Journal of Irreproducible Results could also be persuaded to publish
> that claim, Cecil. Any implication that almost half of Maxwell's
> equations are superfluous should easily qualify as an irreproducible
> result. :-)

Don't know exactly what you are inferring but the editors of QEX
have seen the light, :-) even if at RF frequencies. Quite a few
sources from the field of optics indicate that the phenomenon is well
known in that field even if not well understood in the field of RF.

It is very simple physics, Jim. When two coherent EM waves of equal
amplitudes and opposite phases attempt to travel in the same direction
in the same path, they cancel each other in their original direction
of travel. This is explained under "total destructive interference"
in "Optics" by Hecht. Since the energy in the two waves cannot be
canceled, that energy goes somewhere else. In a transmission line,
there are only two directions. If two waves cancel in one direction,
their combined energy components head back in the only other direction.
Everyone has seen that light interference pattern with his/her own eyes
and some just never realized what was happening.

Here's an example. If you wade through it, you will be forced to admit
that the destructive interference/wave cancellation at the non-glare
surface 'A' causes a reversal in the direction of the reflected
irradiance. That, my friend, is a 100% re-reflection, just as Walter
Maxwell has been saying for decades. 'n' is the index of refraction:

```
n=1.0 | n=1.2222 | n=1.4938
Laser-------air-------|---1/4WL thin film---|---infinite glass----...
| |
A B
```

The reflection from surface 'A' is canceled by an equal magnitude
and opposite phase reflection from surface 'B'. The energy components
in those two canceled waves join the forward wave because energy
cannot be destroyed (even though that concept seems to have serious
consequences to your mental health :-). Here's a quote from the
following web page.

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index.html

ï¿½When two waves of equal amplitude and wavelength that are 180-degrees out of phase with each other meet, they are not actually annihilated. All of the photon energy present in these waves must somehow be recovered or redistributed in a new direction, according to the law of energy conservation ... Instead, upon meeting, the photons are redistributed to regions that permit constructive interference, so the effect should be considered as a redistribution of light waves and photon energy rather than the spontaneous construction or destruction of light.ï¿½

In an RF transmission line, since there are only two possible directions, the only ï¿½regions that permit constructive interferenceï¿½ and "redistribution in a new direction" at an impedance discontinuity is the opposite direction from the direction of destructive interference/wave cancellation.

The above laser example is virtually identical to the following:

RF XMTR--50 ohm coax--+--1/4WL 61 ohm coax--+--infinite 75 ohm coax

If we use a coherent laser beam, no coax is required, so the behavior of the actual EM waves is relatively easy to analyze.
--
73, Cecil http://www.qsl.net/w5dxp

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680. Re: Solarcon A-99 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:21:30 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <9p2fa1tquf78goe380j6shis57kbie6s63@4ax.com>
Source record: 75396

On Wed, 08 Jun 2005 13:18:37 -0400, Buck <iam@this.site> wrote:

>I recently acquired a Solarcon A99 antenna (at no cost). I have been
>trying unsuccessfully to find more information about it other than it
>can be used on the ham bands with an antenna tuner (and a few bands
>without?)
>
>I am hoping to find some instruction manuals, the design and the
>cut-away view of the antenna. Others have suggested this information
>is available on google, but I haven't found it yet.
>
>Thank you for any help.

You can get a manual from http://www.w7fg.com/ It's not free, but they
have the manual

bob
k5qwg

681. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:24:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a78d13$1_1@spool9-west.superfeed.net>
Source record: 75397

J. Mc Laughlin wrote:
> I have a standing offer to contribute $200 to each woman in my
> department who takes the concealed pistol course. Women were safer when
> years ago, even in NYC, they carried.

The states with the highest crime rates are the states with the
strictest gun laws. The states with the lowest crime rates are
the states with the most liberal gun laws. Crime invariably
nosedives when concealed carry permits are issued. What's wrong
with the liberals? Why don't they want liberal gun laws?
--
73, Cecil http://www.qsl.net/w5dxp

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682. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:27:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a78dca$1_1@spool9-west.superfeed.net>
Source record: 75398

Al Lorona wrote:
> I can't find any references anywhere that discuss this, taking into account
> all of the variables: height of ionosphere, frequency, etc.

The ARRL Antenna Book has charts and graphs of such.
--
73, Cecil http://www.qsl.net/w5dxp

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683. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:28:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a78e21$1_1@spool9-west.superfeed.net>
Source record: 75399

Tom Ring wrote:
> I heard that Custer was at the bottom of his class at West Point, barely
> made it through to graduate, and was not very good at most of the skill
> sets needed to survive at being an Indian Fighting General.

If Custer had gone to Reno's aid, he probably would have
lived to fight another day.
--
73, Cecil http://www.qsl.net/w5dxp

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684. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:32:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a78ef9$1_1@spool9-west.superfeed.net>
Source record: 75400

Bob Miller wrote:
> Fred, any hints on winding your 450-ohm line around the wood dowels? I
> have a feedline I wouldn't mind lengthening if I could do it without
> loose ladderline everywhere.

You can string a straight piece of nylon/dacron rope from
one point to another and spiral the ladder-line using the
rope for support. Black tie wraps keep the ladder-line in
position. Another idea is to hang the ladder-line, accordion
style, under the eaves of your house.
--
73, Cecil http://www.qsl.net/w5dxp

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685. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:36:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a78fe5$1_1@spool9-west.superfeed.net>
Source record: 75401

Reg Edwards wrote:
> With mobile verticals what is ALWAYS forgotten about is that the car
> body is just as much a part of the radiating system as the antenna.

I've always considered the vehicle body as a funny looking
large diameter elevated radial. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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686. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:37:50 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <AbMpe.101$BC1.5314680@news.sisna.com>
Source record: 75402

OMG... I thought it was a liberal in that bank... with the mask and
gun... now that you mentioned it--it is obvious!!! <grin>

Warmest regards,
John
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a78d13$1_1@spool9-west.superfeed.net...
> J. Mc Laughlin wrote:
>> I have a standing offer to contribute $200 to each woman in my
>> department who takes the concealed pistol course. Women were safer
>> when
>> years ago, even in NYC, they carried.
>
> The states with the highest crime rates are the states with the
> strictest gun laws. The states with the lowest crime rates are
> the states with the most liberal gun laws. Crime invariably
> nosedives when concealed carry permits are issued. What's wrong
> with the liberals? Why don't they want liberal gun laws?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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687. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:40:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a790eb$1_1@spool9-west.superfeed.net>
Source record: 75403

Reg Edwards wrote:
> I gave you a break. The whole lot of it is nothing but Scattering
> parameters.

Exactly. There's nothing better for analyzing a transmission
line discontinuity. And there's nothing better for understanding
reflections.

> It's mid-day here. There's not a drop of wine in the house.

Have some wine and you'll be able to understand the HP Ap Note.
That's how I first understood it. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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688. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 00:43:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a791b9$1_1@spool9-west.superfeed.net>
Source record: 75404

Fred W4JLE wrote:
> I can send you a copy of a program I wrote. It is based on Cecil's work. You
> can put in the length of the dipole you want to use, the frequency, and type
> of feed line.

That EXCEL program is nice. "imax.exe" is also available from my web
page. It was written in Quickbasic and executes in a DOS window.
--
73, Cecil http://www.qsl.net/w5dxp

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689. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:00:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a795b6$1_1@spool9-west.superfeed.net>
Source record: 75405

Buck wrote:
> I know I'll be corrected if I am wrong, but if I am correct, the SWR
> is high (actually varies by band) on the feedline for the G5RV. The
> twin lead portion doesn't have the losses the coax does with that SWR
> so more of the signal gets to the antenna than it would if it were
> just coax going to a twenty meter dipole.

Here are the 50 ohm SWRs at the 300 ohm twinlead to 50 ohm
coax junction that EZNEC produced in 2001 for a 102' dipole
at 40 feet fed with 27.7' of 300 ohm ladder-line.

3.8 MHz 3.2:1, 7.2 MHz 3.6:1, 10.125 MHz 56:1, 14.2 MHz 4.1
18.14 MHz 37:1, 21.3 MHz 11:1, 24.95 MHz 7.6:1, 28.4 MHz 66:1

The G5RV was designed for 80m, 40m, & 20m operation and on
those designed-for bands does a reasonable job. It works
pretty well on 12m. Less well on 15m. Terrible for 30m, 17m,
and 10m operation.

However, if you are willing to vary the length of the 300 ohm
(or 450 ohm) matching section, you can achieve a reasonable
match on any HF band.
--
73, Cecil http://www.qsl.net/w5dxp

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690. Re: faraday cage apartment / cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:11:56 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <5BMpe.69234$IQ3.19217@bignews5.bellsouth.net>
Source record: 75406

exactly right - That's what I was referring to

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:5207-42A71974-13@storefull-3254.bay.webtv.net...
> Dave C wrote:
> "Skin back how far on the ends of the coax?"
>
> I suspect the idea was to make a quick coaxial fipole at each end of the
> coax.
>
> One removes 1/4-wave of the plastic jacket at each end. Then one
> carefully pulls the coax metal braid back over the remaining jacket as
> far as it will go. You now have a coax 1/2-wave center-fed dipole at the
> end of the coax where completed.
>
> With a 1/2-wave dipole in a high-signal area directly connected to a
> 1/2-wave antenna in a low-signal area, energy is transferred from high
> to low. Try it. It is cheap and it may work.
>
> Best regards, Richard Harrison, KB5WZI
>

691. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:23:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a79aed$1_2@spool9-west.superfeed.net>
Source record: 75407

Ian White GM3SEK wrote:
> Roy has posed a test problem that is very easy to understand, and can be
> solved unambiguously by simple arithmetic. Solving it using S-parameters
> will take time and some depth of understanding, but we can be confident
> that they WILL give exactly the same result in the end.

It's not Roy's results that are flawed. It's his premises. If
one has a 100v source with a 50 ohm series impedance feeding
a 200 ohm resistor, Roy's results are perfect. But when we add
that 1/2WL of 200 ohm line, it changes things from a circuit
analysis to a distributed network analysis. Much more energy
is stored in the system, using the transmission line, than has
reached the load during steady-state. Roy tries to completely
ignore the stored energy and alleges that there is no energy in
the reflected waves. But there is *exactly* the same amount of
energy stored in the feedline as is required for the forward
waves and reflected waves to posssess the energy predicted by
the classical wave reflection model or an S-parameter analysis
or an analysis by Walter Maxwell of "Reflections" fame.

> The challenge for Cecil is to make his own theory do the same.

"My theory" gives the exact same results as an S-parameter analysis
or a classical wave reflection model analysis. That's why I know it's
correct. Roy's (and Dr. Best's) models give the correct results for
voltage and current but not for power/energy. Remember Dr. Best's
assertion that 75w + 8.33w = 133.33w? It's been four years since
I told him here on this newsgroup that was ridiculous and that
75w + 8.33w + 50w of constructive interference = 133.33w
He responded that no interference existed or was necessary. That
can be verified by accessing Google, summer 2001.

Interference is built into the S-parameter model and the classical
wave reflection model but a lot of RF people don't recognize it. Dr.
Best's term, 2*SQRT(P1)*SQRT(P2), is known in the field of optics as
the "interference term" but he didn't know that at the time of
publication of his QEX article.
--
73, Cecil http://www.qsl.net/w5dxp

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692. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:26:42 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a79ad3$0$3710$39cecf19@news.twtelecom.net>
Source record: 75408

Richard Clark wrote:

> On Wed, 08 Jun 2005 01:25:33 GMT, kashe@sonic.net wrote:
>
>>>As for software, any notion of time is utterly ridiculous. Any
>>>operation that successfully performed once will ALWAYS perform
>>>identically every time again.
>>
>> How many operations are fed the identical, valid input every
>>time?
>
>
> This is at least four questions
> 1. How many operations;
> at least two to satisfy the statement responded to
> 2. identical input;
> self validating, however this constraint is unnecessary
> 3. valid input;
> what does it matter? the response is identical
> 4. every time
> time is an illusion, a computer only knows now. This is why it ALWAYS
> does the same thing. If it didn't, would you use the ATM machine?
> Would you fly on a 757? Would you go on a green light?
>
> If it didn't, would you use that voting machine again? What if they
> said it was good enough and you had no choice and no paper trail?
>
> .....
>
> Well, the Judge smacked down the gavel yesterday and threw the
> Republican's challenge out. Nothing was left to appeal on, "the law
> is clear," said the Judge, "take your beef to the lawmakers...."
>
> Unmentioned on national feed, was Rossi's whine: "Can't take this to
> the Supreme court because of its political bias." Luckily his
> progesterone laced complaint wasn't raised in this Republican
> dominated county. After all, if you can't get a straight deal from
> Olympia, what kind of shaft job did you get in your own hand-picked
> court?
>
> Too bad too. I wanted to see more action. This generation of fops
> and hairless, overweight pill-poppers just doesn't have the will to
> fight as much as they have motivation to jack their jaws. Many of the
> right wing reports pine about how slow out of the gate this challenge

> came, and how much foot dragging went on to take on a weak, Democratic
> opponent. Most of those same reports offered the prospect of a
> Supreme Court challenge, instead these ladies faded onto their silk
> moire chaise lounges.
>
> 73's
> Richard Clark, KB7QHC

You are losing it Richard. You're mixing politics, which I am sure I'm safe saying most of us would love to see banned from this newsgroup, with a silly answer, which is still quite welcome. Keep your BS to yourself, please.

tom
K0TAR

693. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:28:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a79c32$1_2@spool9-west.superfeed.net>
Source record: 75409

Buck wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Fred is using my design from:
>>http://www.qsl.net/w5dxp/notuner.htm
>
> Can the 17 and 10 meter bands be tuned to a better match or are they
> compromised so the antenna doesn't need additional matching sections?

Each installation will vary depending upon the surroundings. My 50
ohm SWR on 17m was 1.6:1 and 1.7:1 on 10m. Those were acceptable
to my IC-706 at the time - even more acceptable to me now that I
have an IC-756PRO with its internal tuner. :-)

In fact, one of the advantages/benefits of this matching method is
that it allows internal tuners to achieve perfect matches on all
HF bands - no external tuner necessary.
--
73, Cecil http://www.qsl.net/w5dxp

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694. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:35:05 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a79cca$0$3709$39cecf19@news.twtelecom.net>
Source record: 75410

Cecil Moore wrote:

> Jim Kelley wrote:
>> The Journal of Irreproducible Results could also be persuaded to
>> publish that claim, Cecil. Any implication that almost half of
>> Maxwell's equations are superfluous should easily qualify as an
>> irreproducible result. :-)
>
>
> Don't know exactly what you are inferring but the editors of QEX
> have seen the light, :-) even if at RF frequencies. Quite a few
> sources from the field of optics indicate that the phenomenon is well
> known in that field even if not well understood in the field of RF.

Cecil,

The Journal of Irreproducable Results is a hilarious journal that has had a number of interesting articles in it. One I remember had to do with Peanut Butter and the Three Stooges and the Precession of the Earth's Axis (someone correct me if I misremembered). I believe it has been referred to as Mad Magazine for Stephen Hawking.

Another had to do with a nice compression algorithm that eventually reduced the input to 1 bit, no matter the input, and since that bit was predictable as just a 1, we could eliminate that also.

tom
K0TAR

695. Re: W5DXP's No-Tuner antenna and tv twin-lead

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:38:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a79e9e_1@spool9-west.superfeed.net>
Source record: 75411

Buck wrote:
> I have read several articles that show how this antenna works. The
> 450 ohm twin lead matches the antenna by wavelength (or some fraction
> thereof.) I am wondering if this same concept can be successfully
> used with 300 ohm tv twin lead.

The 450 ohm ladder-line yields a 50 ohm SWR lower than 2:1 for all
SWRs on the 450 ohm line between 4.5:1 and 18:1. Most 450 ohm SWRs
fall into that range.

The 300 ohm twinlead yields a 50 ohm SWR lower than 2:1 for all
SWRs on the 300 ohm line between 3:1 and 12:1. So you can see that
the matching range is not as wide with 300 ohm line as with 450
ohm line.

600 ohm open-wire line yields a 50 ohm SWR lower than 2:1 for all
SWRs on the 600 ohm line between 6:1 and 24:1 so that range is
even wider.

> It would be interesting to know if some small contraption could be
> made to carry one around for a portable operation successfully.

I carry around 1, 2, 4, 8, & 16 foot lengths of 450 ohm line and
just plug them together with banana plugs to achieve a match
without a tuner.

Side-by-side coax can be used as balanced line. I often toyed with
the idea of having a box of side-by-side RG-62 coax (Z0=186 ohms)
connected to switches or relays. For 186 ohm feedline, any SWR
between 1.86:1 and 7.44:1 would yield a 50 ohm SWR of less than
2:1. But you can see the matching range would be pretty small.
--
73, Cecil http://www.qsl.net/w5dxp

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696. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:41:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a79f53$1_1@spool9-west.superfeed.net>
Source record: 75412

Buck wrote:
> Pardon me while I learn from this discussion.
>
> The 450 ohm antenna is designed to be tuned by using exactly 1/2
> electrical wave lengths to match both the transmitter and antenna.
> This should mean that any differing feedline should work equally as
> well (except for the losses) if I am correct....

What you are missing is that first piece of matching section
which can be any length less than 1/2WL. After that first
piece of matching section, you could indeed switch to a
different characteristic impedance. Congratulations, you
have just invented the G5RV. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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697. Re: W5DXP's No-Tuner antenna ... was... Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 01:44:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a79ff3$1_1@spool9-west.superfeed.net>
Source record: 75413

Buck wrote:
> Do you think this would work? Instead of switching the lead in and
> out, could the leads be tapped at each band according to the matched
> setting? So that instead of a series of knife switches, a double-pole
> multi-throw switch could be used to select a band or frequency for
> use?

Nope, that won't work because it leaves unterminated stubs
in the transmission line system. You might be able to
predict their effect but I have never tried to do that.
It's rather like a bag of worms.
--
73, Cecil http://www.qsl.net/w5dxp

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698. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 02:11:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a7a624$1_2@spool9-west.superfeed.net>
Source record: 75414

Jim Kelley wrote:

> Cecil Moore wrote:
>> Of course, my statement is related to steady-state. I don't
>> see anything worth responding to, Jim. Where's the beef?
>
> The problem is that there should only be a 1 second lapse of time
> between the beginning of gozinta at 100 Joules/sec and the beginning of
> comezouta at 100 Joules/sec. At what point is the additional 2 seconds
> worth of energy fed into the system?

During the power-on transient phase. The load rejects half the incident
power. To keep things simple, assume a very smart fast tuner. After
one second, the feedline will contain 100 joules. The load will have
accepted zero joules. After two seconds, the feedline will contain the
100 joules generated plus 50 joules rejected by the load and the load
will have accepted 50 joules. Already the feedline contains 150 joules
while the source is putting out 100 joules per second. After 'n'
seconds, the line contains 300 joules, 100 from the source and 200
rejected by the load during the power-on transient stage.

seconds forward energy reflected energy load power
1 100 0 0
2 100 50 50
3 150 50 50
4 150 75 75
5 175 75 75
6 175 87.5 87.5
7 187.5 87.5 87.5
8 187.5 93.75 93.75
9 193.75 93.75 93.75
10 193.75 96.875 96.875
n 200 100 100

After 10 seconds the source has output 1000 joules. The load
has accepted 709.375 joules. 290.625 joules are already stored
in the feedline on the way to 300 joules during steady-state.
This is simple classical reflection model stuff.

If a load in rejecting half its incident power, the steady-
state reflected power will equal the steady-state load
power. The steady-state forward power will be double
either one of those.
--
73, Cecil http://www.qsl.net/w5dxp

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699. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 03:29:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11afdsj1oe4pp05@corp.supernews.com>
Source record: 75415

Cecil Moore wrote:
> Ian White GM3SEK wrote:
>
>> Roy has posed a test problem that is very easy to understand, and can
>> be solved unambiguously by simple arithmetic. Solving it using
>> S-parameters will take time and some depth of understanding, but we
>> can be confident that they WILL give exactly the same result in the end.
>
>
> It's not Roy's results that are flawed. It's his premises. If
> one has a 100v source with a 50 ohm series impedance feeding
> a 200 ohm resistor, Roy's results are perfect. But when we add
> that 1/2WL of 200 ohm line, it changes things from a circuit
> analysis to a distributed network analysis. Much more energy
> is stored in the system, using the transmission line, than has
> reached the load during steady-state. Roy tries to completely
> ignore the stored energy and alleges that there is no energy in
> the reflected waves. But there is *exactly* the same amount of
> energy stored in the feedline as is required for the forward
> waves and reflected waves to posssess the energy predicted by
> the classical wave reflection model or an S-parameter analysis
> or an analysis by Walter Maxwell of "Reflections" fame.
> . . .

Ah, the drift and misattribution has begun. I'll butt in just long enough to steer it back.

I made no premises, and have not made any statement about energy in reflected waves. I only reported currents and powers which I believe are correct. Nothing you or anyone has said has indicated otherwise. I do question the notion of bouncing waves of average power, and have specifically shown that H's statement about the source resistor absorbing all the reflected power, when its value is equal to the line impedance, is clearly false. (The "reflected power" is 18 watts; the resistor dissipates 8.) I haven't seen any coherent explanation of the observable currents and power dissipations that's consistent with the notion of bouncing current waves. Perhaps your dodging and hand-waving has convinced someone (the QEX editor?), but certainly not me.

It's not a 200 ohm line, it's a 50 ohm line. (I see that I neglected to state this when giving my example, and I apologize. But it can be inferred from the load resistance and SWR I stated.)

It baffles me how you think you can calculate the line's stored energy without knowing its time delay. The calculation of stored energy is

simple enough, but it requires knowledge of the line's time delay. A half wavelength line at 3.5 MHz will store twice as much energy as a half wavelength line at 7 MHz, all else being equal. Even if you knew the frequency (which I didn't specify), you'd also need to know the velocity factor to determine the time delay and therefore the stored energy. I'm afraid your methods of calculating stored energy are in error.

But if you think the stored energy is important and you find (by whatever calculation method you're using) that it's precisely the right value to support your interesting theory, modify the example by doubling the line length to one wavelength. The forward and reverse powers stay the same, power dissipation in source and load resistors stay the same, impedances stay the same -- there's no change at all to my analysis or any of the values I gave. But the energy stored in the line doubles. (Egad, I hope your stored energy calculation method isn't so bizarre that it allows doubling the line length without doubling the stored energy. But I guess I wouldn't be surprised.) So if the stored energy was precisely the right amount before, now it's too much by a factor of two. And if you find you like that amount of stored energy, double the line length again.

I can see why you avoid the professional publications.

Roy Lewallen, W7EL

700. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 03:46:04 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <50efa11cah90usp072028opbjp1vtrl3oh@4ax.com>
Source record: 75416

On Wed, 08 Jun 2005 17:57:21 -0000, dplatt@radagast.org (Dave Platt) wrote:

>Similar issues are likely to exist in recent-model cars which have a >lot of fiberglass or other composite-plastic panels and structure.

Back in the good old days, I was the proud owner of a 1956 Corvette, one of only 3467 built and along with the '57s, the prettiest ones ever buit. (damn I wish I had that car back). As are all Corvettes, it was fiberglass.

The soft top was stored under a flip up hatch behind the seats and there were two toggle clamps that secured the rear of the top when it was up. These penetrated the hatch cover so that it was possible to snake a vertical whip through them. I used a 17" aluminum transcription disk (common in broadcast stations of the day) with the coating stripped off for a ground plane under the hatch.

Best DX using a Heathkit "Twoer" was from the driveway of a friend in Tempe, AZ back to another friend in Tucson; about 100 miles.

This wasn't long after QST magazine had breathlessly reported that the "difficult path" between Tucson and Phoenix had been bridged.

701. Re: W5DXP's No-Tuner antenna ... was... Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 04:21:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <cf2c1$42a7c3e8$97d55d24$12897@ALLTEL.NET>
Source record: 75417

This is what I use Buck. Mine is a 132 foot dipole and I insert the lengths with Omron 4PDT relays controlled by 2 decimal thumbwheel switches.

I just added another relay that ties the two sides of the twinlead together and feeds the center conductor of the coax. I plan to use it on 160. I have not tested it yet because conditions have been so bad with storms every day this week.

"Buck" <iam@this.site> wrote in message
news:ca9ea1ljtiao8il24qkakp7m2keg2afofu@4ax.com...
>
> Thank you,
>
> Is this the same program here: http://www.qsl.net/w5dxp/notuner.htm ?
>
> I have been looking at this awhile and wonder if the SWR on 17 and 10
> meters can be better tuned by adding an additional 1/2 foot section.
>
> It probably doesn't matter at that SWR.
>
>
> another question related to the antenna:
>
> Do you think this would work? Instead of switching the lead in and
> out, could the leads be tapped at each band according to the matched
> setting? So that instead of a series of knife switches, a double-pole
> multi-throw switch could be used to select a band or frequency for
> use?
>
> Thanks again, gears are turning in my head again...
> ;)
>
> 73 for now
> Buck
>
>
>
>
>
>
> On Wed, 8 Jun 2005 11:40:10 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >I can send you a copy of a program I wrote. It is based on Cecil's work.
You
> >can put in the length of the dipole you want to use, the frequency, and

type
> >of feed line. It gives you the choice of giving you the length of
feedline
> >for that single case, or a start and stop frequency in which case it
prints
> >out a chart of frequency vs. total length.Add jumpers to make up the
> >difference above 80 feet and your good to go!
> >
> >For portable operation a 130 foot dipole fed with 80 feet of 300 Ohm to a
> >small piece of Plexiglas and two sets of banana jacks would allow you to
> >put jumpers of various lengths into the jacks. The second set goes to the
> >rig via a convenient length of 50 ohm coax with a choke balun of
ferrites.
> >Lengths of 1,2,4, and 8 foot would allow you to make up jumpers to enable
75
> >meters from 3.8 to 4 and all the other bands with the exception of 60
> >meters.
> >
> >It can be made smaller if your only interested in 40 and up etc. Easy to
> >carry, no tuner and worst swr around 1.7:1
> >
> >For example a 2 foot jumper would put you at 4.0, and a series of an 8,2,
> >and 1 jumper for 3.8
>
> --
> 73 for now
> Buck
> N4PGW

702. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 04:27:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <333b4$42a7c52f$97d55d24$13012@ALLTEL.NET>
Source record: 75418

No buck, the line is always longer than 1/2 wave. It is a matching section
from what is at the antenna to 50 ohms, and then 1/2 wave from that point.

"Buck" <iam@this.site> wrote in message
news:k58ea11bjn63qoqhfavn2slms81vku7tvq@4ax.com...
> Pardon me while I learn from this discussion.
>
> The 450 ohm antenna is designed to be tuned by using exactly 1/2
> electrical wave lengths to match both the transmitter and antenna.
> This should mean that any differing feedline should work equally as
> well (except for the losses) if I am correct....
>
>
>
>
> On Tue, 7 Jun 2005 18:02:43 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >I feed it with an electrical 1/2 wave length of exactly 450 Ohm feedline.
> >The 50 Ohms from my antenna is repeated at the other end of the feedline.
An
> >SWR bridge calibrated for 50 Ohms and my rig see 1:1.
>
> --
> 73 for now
> Buck
> N4PGW

703. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 04:32:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <bb92b$42a7c65a$97d55d24$13214@ALLTEL.NET>
Source record: 75419

Did you miss the tuner part? The "magic antenna" is the same all band sold
by a number of folks, i.e. Van Gordon.

.

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:iffea15oc7ek2kt5jb1hmspqkvup0je4tt@4ax.com...
> On Wed, 08 Jun 2005 12:52:01 -0400, Buck <iam@this.site> wrote:
>
> >Pardon me while I learn from this discussion.
>
> Hold on Buck.
>
> So far there has been very little "learning" to be done from this
> discussion.
>
> I dislike getting personal but I strongly suggest that you reject
> anything Fred has put forth. Some of what he says is correct, but for
> the most part you are being led astray. Since you don't yet have the
> skills to separate the good from the BS, the safest thing to do is
> ignore it all.
>

704. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 04:45:11 UTC
From: Buck <iam@this.site>
Message-ID: <l8ifa1t3siam6l92qi8j4c80uv5243ivel@4ax.com>
Source record: 75420

On Wed, 08 Jun 2005 20:41:58 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> Pardon me while I learn from this discussion.
>
>What you are missing is that first piece of matching section
>which can be any length less than 1/2WL. After that first
>piece of matching section, you could indeed switch to a
>different characteristic impedance. Congratulations, you
>have just invented the G5RV. :-)

Hmmm, and I'm not even british.....

;)

The G5RV is a twenty meter antenna, isn't it? It needs a tuner on all
other bands if I am not mistaken.

--
73 for now
Buck
N4PGW

705. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 05:20:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11afkdfthtqpk6a@corp.supernews.com>
Source record: 75421

As an alternative to putting your Field Day antenna higher, consider finding a location that will enhance lower angle radiation. 10 dB improvement over flat ground isn't too hard to come by in hilly or mountainous terrain. The best program I've seen for determining this is TA (Terrain Analysis), a DOS program which I believe you can still get from its author, Brian Beezley, K6STI. Last I heard, he'll only take orders by mail.

I have the same general problem here in Oregon, perhaps even more so. My Field Day antennas and location are chosen as though I were after DX. You might be interested in the "Field Day Special", an antenna I've used for many years from here -- it might also be suitable for you. You can find the info at http://www.eznec.com/Amateur/Articles/.

Roy Lewallen, W7EL

Al Lorona wrote:
>
> Hi, Richard,
>
> Yeah, your reference sounds about right. On Roy's suggestion, I downloaded
> W6ELprop and was shocked to find what the elevation angles are for even
> moderate path lengths. For example, I ran the path from Albuquerque to
> Philadelphia and was amazed to find that the signal would have to leave the
> antenna and reflect from the F layer at a 4 degree angle!! That's darn near
> parallel to the reflecting surface! This is far, far lower than I had ever
> thought. Most antennas have radiation at this angle, of course, but it is
> usually way down from the main lobe.
>
> Even for double-hop contacts, I believe that the angle was something like 8
> or 10 degrees for that same path, but I don't remember exactly right now.
>
> You cite that a 1/2-wave-high horizontal antenna has a maximum lobe at 30
> degrees. Starting at Albuquerque, that 30 degrees will get you only to about
> Oklahoma City on the first hop. Again, this surprised me. Believe me, I am
> becoming disabused of my previous erroneous notions.
>
> These numbers are all for 40 meters and below. If the horizontal antenna in
> question is operated on a higher frequency, there's no guarantee (if I am
> reading the data in W6ELprop correctly) that a 30 degree incident angle will
> be reflected at all.
>
> I tend to grow jaded upon hearing east coast stations (I am in Los Angeles)
> on 40, but now I will appreciate the physics necessary to make such a thing
> possible.

>
> I am also going to have to put up my Field Day antenna much, much higher
> than previously thought.
>
> Regards,
>
> Al W6LX
>
>
>
>
>
>
>
>

706. Re: Elevated radial length?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 05:27:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11afkq8rbuj4087@corp.supernews.com>
Source record: 75422

Dave wrote:

[regarding elevated radials]

> the more and the longer the better of course! . . .

No, that's not true. The efficiency of a vertical antenna with elevated radials declines noticeably as radial length increases beyond quarter wave resonance. With half wavelength radials, the efficiency can be very poor, depending on soil conditions, the number of radials, and the height. Decreasing the radial length to less than a quarter wavelength doesn't generally hurt the efficiency much. I'd guess that the efficiency would peak again at 3/4 wavelength, but I haven't checked. It's easy to model with EZNEC or similar program, and you can get a fair evaluation of a system with a few radials using the free demo version.

I should mention that the resonant length of radials is shorter when close to the ground than it is in free space. This has to be considered when choosing elevated radial length, particularly if the radials aren't very high in terms of wavelength.

Roy Lewallen, W7EL

707. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 05:30:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11afl0f8qqsgt18@corp.supernews.com>
Source record: 75423

Reg Edwards wrote:
> . . .
> I've often thought of modelling a mobile loaded whip in a computer
> program. Input data would include body dimensions and height above
> ground. With a lot of patience you could do it with an EZNEC type of
> program.

Many people have done it with EZNEC. At HF, all that's necessary is a pretty crude outline, except in the close vicinity of the antenna where currents can change more rapidly. At VHF and above a much finer wire grid model is necessary. But as others have pointed out, a lot of modern cars aren't covered by a solid metal shell. So it might be difficult for these cars to figure out just what external and internal metallic parts will be carrying the current and therefore need to be included in the model.

Roy Lewallen, W7EL

708. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 05:32:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11afl2nhf3lhn51@corp.supernews.com>
Source record: 75424

Sorry, I don't know any more about the antenna than you do, and hopefully less (since it sounds like you're intending to make use of it). I suggest you contact the vendor for application help. Most manufacturers are glad to provide it.

Roy Lewallen, W7EL

redhat wrote:
> Thanks for your reply. what about this patch antenna
> http://rocky.digikey.com/WebLib/Toko/Web%20Data/DAK1575MS50T.pdf
> it has a feed pin at the center, the ground is the whole area around
> the pin , they say it has an adhesive tape for ease in mounting to the
> ground plane , is this adhesive tape a good conductor so that it
> connects the antenna ground to the circuit's ground or what? so,in the
> pcb design should i make a rectangular copper area under this antenna
> connected to the ground?
> Regards,
> Redhat
>

709. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 05:35:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11afl9d73m9rhee@corp.supernews.com>
Source record: 75275

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> With mobile verticals what is ALWAYS forgotten about is that the car
>> body is just as much a part of the radiating system as the antenna.
>
>
> I've always considered the vehicle body as a funny looking
> large diameter elevated radial. :-)

That (a single fat radial) might be a reasonable model if the antenna is mounted at one end of the vehicle. If it's at the center of the top, the antenna is more like an asymmetrical dipole, with the "antenna" being one half and the vehicle being a much fatter lower half. In that case the car will produce a substantial vertically polarized field -- perhaps more than the "antenna".

Roy Lewallen, W7EL

710. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 06:32:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <msnfa19at3oa0586f79ltdu8taldn3ta77@4ax.com>
Source record: 75276

On Wed, 08 Jun 2005 20:26:42 -0500, Tom Ring <news0002@taring.org>
wrote:

>You are losing it Richard. You're mixing politics, which I am sure I'm
>safe saying most of us would love to see banned from this newsgroup,
>with a silly answer, which is still quite welcome. Keep your BS to
>yourself, please.

Hi Tom,

If the contradiction didn't hit you yet, it was obvious that the
thread ended with my last post and out of boredom you chose to mix it
up with at least two more - yours then my response. Please don't
patronize us with insisting it would not be otherwise. Banning the
BS? Can you resist adding another example? ;-)

You know full well I respond to ALL interesting topics and any mawkish
sentimentality of appealing for injunctions against them to the "court
of public opinion" is best left to broadcast AM radio where they need
air-fill to sell laxatives.

73's
Richard Clark, KB7QHC

711. How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 09:03:51 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1118307831.586323.204370@z14g2000cwz.googlegroups.com>
Source record: 75277

Hello All,
I've justed moved into a new home and the XYL isn't crazy about my
plans to build my "dream tower" just yet. I was wondering how much
weight a push up telescopic mast such as the Rohn 50 foot guyed unit
could safely carry. Specifically I want to mount my MFJ 80-2 meter
vertical, which weighs in at 20 pounds, and an 80 meter dipole on a
side arm mount. Any thoughts from the group that meight prove helpfull
are welcome.
Thanks and 73,
Rob Brown
KB8WWS

712. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 10:11:47 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1118311907.073075.280950@z14g2000cwz.googlegroups.com>
Source record: 75278

Rob Brown wrote:
> Hello All,
> I've justed moved into a new home and the XYL isn't crazy about my
> plans to build my "dream tower" just yet. I was wondering how much
> weight a push up telescopic mast such as the Rohn 50 foot guyed unit
> could safely carry. Specifically I want to mount my MFJ 80-2 meter
> vertical, which weighs in at 20 pounds, and an 80 meter dipole on a
> side arm mount. Any thoughts from the group that meight prove helpfull
> are welcome.

If it's well guyed and you keep it vertically straight it shold be OK
as far as the vertical is concerned. I'd be leery of hanging the 80M
dipole on a side arm because it would generate a torque load on the
mast which could cause problems. I'd forget the side arm and hang the
dipole on the mast as close as possible to a guy level. There might be
some issues with interactions between the vertical and the dipole on
80M.

> Thanks and 73,
> Rob Brown
> KB8WWS

w3rv

713. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 11:16:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a825ef_2@spool9-west.superfeed.net>
Source record: 75279

Roy Lewallen wrote:
> Ah, the drift and misattribution has begun. I'll butt in just long
> enough to steer it back.
>
> I made no premises, and have not made any statement about energy in
> reflected waves. I only reported currents and powers which I believe are
> correct. Nothing you or anyone has said has indicated otherwise. I do
> question the notion of bouncing waves of average power, ...

That's exactly the false premise I am talking about, Roy. If you assume waves of reflected power don't exist, you will find a way to rationalize proof of that premise. You are looking under the streetlight where the light is better instead of in the dark spot where you lost your keys (keys being analogous to reflected power).

> It's not a 200 ohm line, it's a 50 ohm line. (I see that I neglected to
> state this when giving my example, and I apologize. But it can be
> inferred from the load resistance and SWR I stated.)

Yes, you are right about that. But one can visualize the interference by inserting 1WL of lossless 200 ohm feedline between the source and the 50 ohm line which changes virtually nothing outside of the 200 ohm line.

100v/50ohm source with 80v at the output terminals.

80v--1WL lossless 200 ohm line--+--1/2WL 50 ohm line--200 ohm load

The source sees the same impedance as before. The same impedance as before is seen looking back toward the source. Voltages, currents, and powers remain the same. But now the interference patterns are external to the source and can be easily analyzed.

> It baffles me how you think you can calculate the line's stored energy
> without knowing its time delay.

The time delay was given at one second, Roy. I really wish you would read my postings. Here is the quote from the earlier posting:

```
*****************************************************************
* If we make Roy's lossless 50 ohm feedline one second long (an *
* integer number of wavelengths), during steady-state, the source *
* will have supplied 68 joules of energy that has not reached the *
* load. That will continue throughout steady state. The 68 joules *
* of energy will be dissipated by the system during the power-off *
* transient state. *
*****************************************************************
```

I DIDN'T EVER TRY TO CALCULATE THE STORED ENERGY IN YOUR LINE. But a VF could be assumed for your lossless line and a delay calculated from the length. Or you can just scale my one second line down to a one microsecond line. The results will conceptually be the same. Of course, the one microsecond line would have to be defined as an integer number of half wavelengths but the frequency could be chosen for that result.

So 68 microjoules would be be stored in that one microsecond feedline, 50 microjoules in the forward wave and 18 microjoules in the reflected wave. The source is still supplying 32 microjoules per microsecond and there is exactly enough energy stored in the feedline to support the energy in the forward wave and reflected wave as predicted by the wave reflection model or S-parameter analysis.

> The calculation of stored energy is
> simple enough, but it requires knowledge of the line's time delay.

The time delay was given, Roy, at one second. See the above quote. That technique changes watts to joules. Buckets of joules are not as easy to hide as watts.

> A
> half wavelength line at 3.5 MHz will store twice as much energy as a
> half wavelength line at 7 MHz, all else being equal. Even if you knew
> the frequency (which I didn't specify), you'd also need to know the
> velocity factor to determine the time delay and therefore the stored
> energy. I'm afraid your methods of calculating stored energy are in error.

I'm afraid you don't read my postings. THE FREQUENCY AND VELOCITY FACTOR DO NOT MATTER WHEN THE FEEDLINE IS SPECIFIED TO BE ONE SECOND LONG. Wavelength and VF are automatically taken into account by the assumption of a one second long feedline. I have used that example before for that very reason. A one second long feedline is filled with joules. Joules are harder to sweep under the rug than watts are.

> But if you think the stored energy is important and you find (by
> whatever calculation method you're using) that it's precisely the right
> value to support your interesting theory, modify the example by doubling
> the line length to one wavelength. The forward and reverse powers stay
> the same, power dissipation in source and load resistors stay the same,
> impedances stay the same -- there's no change at all to my analysis or
> any of the values I gave. But the energy stored in the line doubles.
> (Egad, I hope your stored energy calculation method isn't so bizarre
> that it allows doubling the line length without doubling the stored
> energy. But I guess I wouldn't be surprised.)

If the forward power and reflected power remain the same, doubling the length of the feedline must necessarily double the amount of energy stored in the forward and reflected waves. That fact supports my side of the argument, not yours.

> So if the stored energy
> was precisely the right amount before, now it's too much by a factor of

> two. And if you find you like that amount of stored energy, double the
> line length again.

Feeble attempt at obfuscation. The amount of energy stored in a feedline
is proportional to its length assuming the same forward and reflected
power levels and assuming integer multiples of a wavelength. Again,
that supports my side of the argument 100% - and doesn't support yours.
It appears to me that you have just admitted your mistake but don't
realize it yet.

> I can see why you avoid the professional publications.

Actually, I have had a lot more articles published in professional
publications than I will ever have published in amateur publications.
I was an applications engineer for Intel for 13 years and professional
publication was required in the job description.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

714. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 11:23:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a827ad$1_1@spool9-west.superfeed.net>
Source record: 75280

Buck wrote:
> The G5RV is a twenty meter antenna, isn't it? It needs a tuner on all
> other bands if I am not mistaken.

The G5RV needs a tuner on all bands. Acceptable SWRs are
very rare without a tuner. The G5RV is 1.5WL long on
20m. The resonant feedpoint impedance on 20m is in excess
of 100 ohms giving a 50 ohm SWR in excess of 2:1 so a
tuner is required, even on 20m. However, I have done to
a G5RV what Fred has done to a 1/2WL 80m dipole. The
matching section on my G5RV is a variable length between
22' and 38'. My G5RV has an SWR below 1.5:1 on all eight
HF bands. I'm going to write it up one of these days.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

715. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 11:26:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a82869$1_1@spool9-west.superfeed.net>
Source record: 75281

Roy Lewallen wrote:
> That (a single fat radial) might be a reasonable model if the antenna is
> mounted at one end of the vehicle.

My screwdriver is mounted in my GMC pickup trailer hitch hole.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

716. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 12:16:40 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a83328$0$3704$39cecf19@news.twtelecom.net>
Source record: 75282

Richard Clark wrote:

> On Wed, 08 Jun 2005 20:26:42 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>
>>You are losing it Richard. You're mixing politics, which I am sure I'm
>>safe saying most of us would love to see banned from this newsgroup,
>>with a silly answer, which is still quite welcome. Keep your BS to
>>yourself, please.
>
>
> Hi Tom,
>
> If the contradiction didn't hit you yet, it was obvious that the
> thread ended with my last post and out of boredom you chose to mix it
> up with at least two more - yours then my response. Please don't
> patronize us with insisting it would not be otherwise. Banning the
> BS? Can you resist adding another example? ;-)
>
> You know full well I respond to ALL interesting topics and any mawkish
> sentimentality of appealing for injunctions against them to the "court
> of public opinion" is best left to broadcast AM radio where they need
> air-fill to sell laxatives.
>
> 73's
> Richard Clark, KB7QHC

I responded to what you posted, and included the entire post. Go back
and look. You really _are_ losing it.

tom
K0TAR

717. FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 15:10:41 UTC
From: butlercellars <butlercellars@hotmail.com>
Message-ID: <TZYpe.10$W4.1016@okeanos.csu.net>
Source record: 75283

Our local cable company, Comcast, doesn't carry FM radio signals; therefore, I'm trying to improve my FM reception on my home receiver. I've had separate VHF and UHF antennas up for HDTV several years. They work wonders for HD and even analog TV, but the FM element on the VHF yagi surprisingly doesn't pick up much. Part of my problem is that I'm on an east facing hillside in the foothills directly north of one major metro market area and directly west of another. Despite that, I don't understand why I can get decent TV reception but no FM.

After limited success with a homebrew folded dipole, I picked up a high gain three element FM yagi. No matter where I seem to point it, I'm not getting any more signal strength than with the dipole on the back of the receiver. You'd think that aiming it east, southeast, or south towards all those transmitters would pull in something, but gain is very weak. However, if I point it northwest, at about 45 degrees up the hill behind me, I can actually pull in a few decent stations. Aiming the antenna in the opposite direction of the stations just seems contrary to logic. I understand that ground waves travel parallel to the earth, but could the signals be bouncing off the hillside too, acting like a huge reflector?

The thing that really gets me is that I can get excellent reception on all stations in my car sitting in the driveway, and driving around. Therefore, I'm thinking of dumping the yagi and trying to find or build a vertically polarized omni antenna. My car antenna does happen to be mounted at about 45 degrees. Any ideas on what might be going on, and how I might improve my reception? Any antenna designs and dimensions would be helpful. I guess worst case scenario is I can go down to the auto parts store, by a car antenna, and put it on my roof.

Please help. Many thanks!

-Bob

718. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 15:16:38 UTC
From: Buck <iam@this.site>
Message-ID: <n4nga197lc1coe6kodnq6algelc4noeq84@4ax.com>
Source record: 75284

I am a little confused, so bare with me.....

I put up an antenna with 50 ohm of impedance. I feed it with any
length of 300 ohm feed less than 1/2 L. Then I run 1/2 L of 50 ohm
feed to the radio and I have the 50 ohm match?

similar:

I put up a 300 ohm antenna. I feed it with 300 ohm twin lead for less
than 1/2 L and 1/2 L of 50 ohm feedline. Is this a 50 ohm match?

(L=Lamda)

Thanks
Buck

On Thu, 9 Jun 2005 00:27:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>No buck, the line is always longer than 1/2 wave. It is a matching section
>from what is at the antenna to 50 ohms, and then 1/2 wave from that point.
>
>"Buck" <iam@this.site> wrote in message
>news:k58ea11bjn63qoqhfavn2slms81vku7tvq@4ax.com...
>> Pardon me while I learn from this discussion.
>>
>> The 450 ohm antenna is designed to be tuned by using exactly 1/2
>> electrical wave lengths to match both the transmitter and antenna.
>> This should mean that any differing feedline should work equally as
>> well (except for the losses) if I am correct....
>>
>>
>>
>>
>> On Tue, 7 Jun 2005 18:02:43 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >I feed it with an electrical 1/2 wave length of exactly 450 Ohm feedline.
>> >The 50 Ohms from my antenna is repeated at the other end of the feedline.
>An
>> >SWR bridge calibrated for 50 Ohms and my rig see 1:1.
>>
>> --
>> 73 for now
>> Buck
>> N4PGW

>

--
73 for now
Buck
N4PGW

719. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 15:52:39 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <p2pga1p67e0ekpvulnehjrq3cseakb500u@4ax.com>
Source record: 75285

On Thu, 09 Jun 2005 11:16:38 -0400, Buck Naked <iam@this.site> wrote:

>I am a little confused, so bare with me.....

I'm not about to get naked with you, but you are more than a little confused.

You have listened to too much bafflegab in this thread.

I showed you in detail how to answer your own questions. Did you not read my post?

720. Re: Solarcon A-99 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 15:56:28 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <j4-dnZyy46ct-zXfRVn-oA@comcast.com>
Source record: 75286

"Buck" <iam@this.site> wrote in message
news:pu9ea1t7ec39keqts0h9ip5r8oip3ntfn7@4ax.com...
>
>I recently acquired a Solarcon A99 antenna (at no cost). I have been
> trying unsuccessfully to find more information about it other than it
> can be used on the ham bands with an antenna tuner (and a few bands
> without?)
>
> I am hoping to find some instruction manuals, the design and the
> cut-away view of the antenna. Others have suggested this information
> is available on google, but I haven't found it yet.
>
> Thank you for any help.
> --
> 73 for now
> Buck
> N4PGW

Buck -

A few years ago KG6AOH wrote 2 articles on the disassembly "EXPOSED"
of the IMAX 2000 and Solarcon Antron 99 antennas. I do not believe that he
currently has a website with this information.

Solarcon Antron 99 EXPOSED (Adobe Acrobat document) -
useful for your education and repair - if required
http://www.kb8ygc.com/a99.pdf

Solarcon Products
Tencom, LTD
7134 Railroad Street
Holland, Oh. 43528
1-800-445-3991

w9gb

721. Create Log Periodic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:18:59 UTC
From: Rob Ramm <nospamtherammer@hotmail.com>
Message-ID: <1vpga1d7fd1vr45a8q2404r2ee08ej1h85@4ax.com>
Source record: 75287

I need some advice on a CLP5130-1 Log Peiodic made by Create.
I have had one of these mounted vertical on a fiberglass mast for 10 years now and it survived many windstorms until last week. It would have survived that one also if my 68ft selfsupport tower did not land on it :)

Anyways, what I intend to do is to repurchase a new one to mount vertical, and also another one to mount just below it horizontal for Television/FM reception. The one I use for scanning I feed with 5/8 hardline and I was intending on putting some Times microwave 75ohm hardline (1/2 inch) LMR 600-75 on the second one used for television,reduce it down to an F connector and put in a regular VHF/UHF preamp that adapts out to the "N' connector of the Create.

My question is, has anyone used these as a television antenna. I know they claim 10-12db gain across the whole band which is what my TV antenna boasted as well. I have seen posts that they do not really have as much gain as Create says, but then, does my Delhi Deep Fringe tv antenna which I have to replace also have the stated 7db gain on VHF lo and 13db gain on VHF-HI/UHF.

Looking at the specs, you would say, they should perform the same. I guess I am looking for some advice as to real world experiences since you cannot believe what is printed.
Do these work good as a tv antenna? You may say this is a bit extreme in cost. The wind loading on these antennas is stated around 1 square ft . Their relitively small "wind footprint" is attractive to me as I am looking for lighter alternative with both being at the top of a new 68ft tower I want to stay up.

Thanks,

Rob Ramm

722. Need Antenna Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:20:51 UTC
From: Rob Ramm <nospamtherammer@hotmail.com>
Message-ID: <62rga1tkbt9ekgai4bmon7ligpehak6leq@4ax.com>
Source record: 75291

I need some advice on a CLP5130-1 Log Peiodic made by Create.
I have had one of these mounted vertical on a fiberglass mast for 10 years now and it survived many windstorms until last week. It would have survived that one also if my 68ft selfsupport tower did not land on it :)

Anyways, what I intend to do is to repurchase a new one to mount vertical, and also another one to mount just below it horizontal for Television/FM reception. The one I use for scanning I feed with 5/8 hardline and I was intending on putting some Times microwave 75ohm hardline (1/2 inch) LMR 600-75 on the second one used for television,reduce it down to an F connector and put in a regular VHF/UHF preamp that adapts out to the "N' connector of the Create.

My question is, has anyone used these as a television antenna. I know they claim 10-12db gain across the whole band which is what my TV antenna boasted as well. I have seen posts that they do not really have as much gain as Create says, but then, does my Delhi Deep Fringe tv antenna which I have to replace also have the stated 7db gain on VHF lo and 13db gain on VHF-HI/UHF.

Looking at the specs, you would say, they should perform the same. I guess I am looking for some advice as to real world experiences since you cannot believe what is printed.
Do these work good as a tv antenna? You may say this is a bit extreme in cost. The wind loading on these antennas is stated around 1 square ft . Their relitively small "wind footprint" is attractive to me as I am looking for lighter alternative with both being at the top of a new 68ft tower I want to stay up.

Thanks,

Rob Ramm

723. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:21:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g2rga1hl0cs3ltote8njv8eb05jrp0mipk@4ax.com>
Source record: 75288

On Thu, 09 Jun 2005 07:16:40 -0500, Tom Ring <news0002@taring.org>
wrote:

>I responded to what you posted, and included the entire post. Go back
>and look. You really _are_ losing it.

Hi Tom,

You are grandstanding.

73's
Richard Clark, KB7QHC

724. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:35:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ggrga1ti0qobg8omqs165ta046rqdtoq08@4ax.com>
Source record: 75289

On Thu, 9 Jun 2005 08:10:41 -0700, "butlercellars"
<butlercellars@hotmail.com> wrote:

>You'd think that aiming it east, southeast, or south towards all those
>transmitters would pull in something, but gain is very weak.

Hi Bob,

Metropolitan FM stations are not always located downtown.

>However, if I
>point it northwest, at about 45 degrees up the hill behind me, I can
>actually pull in a few decent stations.

This may be evidence of where the transmitters are.

> Aiming the antenna in the opposite
>direction of the stations just seems contrary to logic. I understand that
>ground waves travel parallel to the earth, but could the signals be bouncing
>off the hillside too, acting like a huge reflector?

Yes, very much so at this frequency. As in gold prospecting, the
signal is where you find it.

>The thing that really gets me is that I can get excellent reception on all
>stations in my car sitting in the driveway, and driving around. Therefore,
>I'm thinking of dumping the yagi and trying to find or build a vertically
>polarized omni antenna.

This is more telling. It suggests that perhaps you haven't properly
connected either the antenna to the feeline, or the feedline to the
receiver, or yes the antenna is still not pointed in the right
direction - or you have a bum receiver. What about an FM portable
with a whip antenna? What about that FM portable with your antenna
feedline attached? If the whip works better, look at the feedline and
up.

73's
Richard Clark, KB7QHC

725. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:38:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8717e$1_2@spool9-west.superfeed.net>
Source record: 75290

Buck wrote:
> I am a little confused, so bare with me.....
>
> I put up an antenna with 50 ohm of impedance. I feed it with any
> length of 300 ohm feed less than 1/2 L. Then I run 1/2 L of 50 ohm
> feed to the radio and I have the 50 ohm match?

Nope, 50 ohms is only one of an infinite number of impedances
you might encounter. For 50 ohms, you feed it with 1/2WL of
300 ohm feedline. This is similar to (but not exactly like)
a G5RV used on 20m.

> I put up a 300 ohm antenna. I feed it with 300 ohm twin lead for less
> than 1/2 L and 1/2 L of 50 ohm feedline. Is this a 50 ohm match?

Nope, you cannot transform the impedance of a 300 ohm antenna
using 300 ohm feedline. You need reflections to cause an
impedance transformation. A 300 ohm antenna impedance is
not within the green doughnut area below.

The range of impedances that can be matched with a length of
450 ohm ladder-line are represented by the green doughnut at:

http://www.qsl.net/w5dxp/smith.htm

The impedances outside the green area cannot be matched by
only one 450 ohm matching section. The area in the doughnut
hole cannot be matched by only one 450 ohm matching section.
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

726. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:56:25 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42a874b9$0$3706$39cecf19@news.twtelecom.net>
Source record: 75292

Richard Clark wrote:

> Hi Tom,
>
> You are grandstanding.
>
> 73's
> Richard Clark, KB7QHC

Nope.

tom
K0TAR

727. AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 16:58:33 UTC
From: Juancito Appleseed <juanitoavocadoseed@yahoo.com>
Message-ID: <1118336313.657161.146240@z14g2000cwz.googlegroups.com>
Source record: 75293
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

From: "Golan Mossad Cipel"
Subject: Re: NIF death ray the real HAARP

> > The HAARP and the NIF are even more dangerous than AIPAC which just
> > planted a few Mossad spies into the Pentagon and they sold the secrets
> > stolen to Israeli high tech and EM weapons national industries there.

AIPAC spies in the Pentagon and White House
http://www.whatreallyhappened.com/motherofallscandals.html

http://www.rense.com/general56/supreb.htm
Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon
Affairs
http://www.rense.com/general57/linkcon.htm

Yes. NIF and HAARP are run by the same Pentagon group.

The HAARP and the NIF are even more dangerous than AIPAC which just
planted a few Mossad spies into the Pentagon and they sold the secrets
stolen to Israeli high tech and EM weapons national industries there
...

http://www.computerweekly.com/Articles/2005/06/07/210245/Trojanspywaresuspectsarrestedasmajorindustrialespionagescandalemerges.htm#ContentContinues
ISRAELI SPIES and their viruses in U.S. and GERMAN computer systems

Trojan spyware suspects arrested as major industrial espionage scandal
emerges

by Bill Goodwin

Tuesday 7 June 2005

A London-based Israeli couple are at the centre of one of the world's
largest industrial espionage and computer hacking scandals.

Computer specialist Michael Haephrati and his wife Ruth are accused of
supplying the sophisticated Trojan horse software used by private
detective agencies to spy on scores of top global firms.

But police believe this is just the tip of the iceberg, and firms
worldwide, including those in the UK, may have had confidential
information compromised after being infected by spyware supplied by the
Haephratis.

The couple were remanded in custody after an appearance at Bow Street
Magistrates Court on 26 May and are now facing extradition to Israel.

Their arrest followed an international investigation by the computer crime unit of the Tel Aviv fraud squad, Interpol, police in Germany and the US, and the UK's National Hi-Tech Crime Unit.

Michael Haephrati, who has homes in London and Germany, provided his services through London-registered computer consultancy, Target Eye. The company lists its specialities as security, intelligence and spyware.

According to Israeli police, Haephrati, who honed his computer skills during his three-year military service with the Israeli army, charged $2,000 (1,100) a month to supply and maintain custom designed Trojan horse spy software.

The full extent of the industrial spying operation has yet to be discovered, Peal Liat, superintendent at Tel Aviv police headquarters, told Computer Weekly.

"Right now it is a very sophisticated investigation. We have something like 150 different computers that were taken by the investigators. Every computer they open, they discover more. Every day it gets us more companies that ordered the information and more companies that were infected," she said.

Israeli police are investigating the role of 15 senior executives from top Israeli companies, after they allegedly hired detective agencies to obtain confidential information from their competitors' computer systems.

Telecoms companies, advertising agencies and public relations firms are among more than 20 organisations known to have been targeted.

Twenty-two staff from Israel's three leading private investigation firms have been arrested. The son of one of the chief suspects, allegedly discovered deleting files after being interrogated by police, has also been arrested, and faces a hearing in a juvenile court.

The agencies are accused of conducting industrial espionage on a huge scale against scores of computers belonging to listed companies and private individuals, according to documents lodged at Tel Aviv Magistrates Court.

Further arrests are expected as Israeli police complete forensic analysis of the computers seized from the offices of private detective agencies, Israeli firms accused of spying on their competitors, and Haephrati's London company.

Police believe the net could extend beyond the borders of Israel and that Haephrati may have sold his services to investigative agencies in the UK, Germany and the US.

Haephrati is accused of offering Trojan software to detective agencies Modi'in Ezrahi, Krochmal Special Investigations and Pelosoff-Ballai.

The agencies used the software, which was delivered by e-mail or given to targets in the form of CD-Roms containing business software, to retrieve confidential material for their clients.

Their investigations ranged from gathering evidence of marital infidelity to obtaining copies of companies' takeover documents and confidential business plans for competitors.

The Trojan was highly sophisticated and capable of evading detection by anti-virus systems, said Liat.

"They were able to see everything, from e-mails to documents to information. And they were able to copy it and take it out. We think the Trojan had the ability to log keystrokes."

The Trojan sent images and documents to FTP servers in Israel, Germany and the US, court documents reveal.

Additional research by Hazel Ward in Jerusalem

http://www.canada.com/businesscentre/story.html?id=611253e8-86e7-4ede-858f-269ef075af8d

"Top Israeli companies suspected of using illicit software to spy on US/UK and German governments and corporations"

June 6, 2005 JERUSALEM (AP) - It started out as a family feud. But a small-time computer break-in has erupted into Israel's biggest business scandal in decades, reaching into some of the country's powerful corporate suites and jolting the cozy world of the industrial elite. Top Israeli blue chip companies, including a high-tech giant that trades in New York, are suspected of using illicit surveillance software to steal information from their rivals and enemies.
The list of victims is equally impressive, ranging from a cigarette importer to the local operations of the Ace hardware chain and Hewlett-Packard Co. Even a well-known TV entertainment reporter is caught up in the affair, claiming hackers invaded his computer to get phone numbers of celebrities.
The investigation has shed an unflattering light on the Israeli business world, where cutthroat competition in a small market, high-tech sophistication and the secretive traditions of the army form a volatile mix.
The case is also attracting the attention of top security software makers. Software firms in the U.S. have been updating their products to defend against similar outbreaks.
Sever Plocker, a leading Israeli economic commentator, said the scandal could have "unpleasant consequences" for foreign investment.
"People don't like to invest in countries where companies do some very unethical things," he said. "I think it is bad for Israel, bad for the image of Israel and nothing to be proud about."
The Trojan Horse scandal, named after the monitoring software secretly planted on the corporate computers, has been front-page news since police lifted a gag order this week. Police say 22 people have been arrested, and more arrests are expected.
"It's getting bigger every day," said Nir Nateev, head of the police

computer and cyber crime department in Tel Aviv, who said some 100 computers have been confiscated. "In the end, there will be dozens (of companies) involved."
The burgeoning scandal has sent a shudder through the business world. The country's central bank chief, American economist Stanley Fischer, warned this week that the case could harm foreign investment.
Amir Barnea, a business professor at the Interdisciplinary Centre, a prestigious Israeli university, attributed the scandal to the hypercompetitive business atmosphere in a tiny market of seven million people.
"Unfortunately some managers may lose the distinction between a legitimate fight for survival and doing illegal acts," he said.
Others said the combination of Israel's high-tech culture, fine-tuned in secretive military units, and a penchant for independent thinking made the scandal inevitable. Some of the world's top computer security companies, including Check Point Software Technologies Ltd., are Israeli.
"If Israelis see a wall, they will try to break it," said TV commentator Motti Kirshenbaum. "It is a challenge to break a wall. Israelis don't say, 'There's a fence, let's respect it.' "

AIPAC spies in the Pentagon and White House
http://www.whatreallyhappened.com/motherofallscandals.html
http://www.rense.com/general56/supreb.htm
Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon Affairs
http://www.rense.com/general57/linkcon.htm

http://haarp-microwave.tripod.com/haarp.html
NIF weapon = $6-10 billion = lasers on level with nuclear bombs
HAARP = maser weapons = $35 billion = Space Shuttle shoot downs as practice targets; earthquakes for fun
Laser Could Rival Energy From Sun's Center
By H. JOSEF HEBERT, Associated Press Writer
Sat May 21, 4:20 PM ET
http://haarp-microwave.tripod.com/haarp.html
Ed Moses talks of the "grand challenge" that has consumed him for the past five years, comparing it to trying to hit the strike zone with a baseball from 350 miles away or tossing a dime into a parking meter from 40 miles. "That's the precision we have to have," says Moses, the director of a high-energy physics adventure to produce the world's most

powerful laser - one that scientists hope will create in a laboratory the energy found at the center of the sun.
In a building the size of a football stadium, engineers have assembled the framework for a network of 192 laser beams, each traveling 1,000 feet to converge simultaneously on a target the size of a pencil eraser.
The trip will take one-thousandth of a second during which the light's energy is amplified many billions of times to create a brief laser pulse 1,000 times the electric generating power of the United States.

728. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 17:05:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4ltga19mj9cartaoc7f12uq5efm8uspa15@4ax.com>
Source record: 75294

On Thu, 09 Jun 2005 11:56:25 -0500, Tom Ring <news0002@taring.org>
wrote:

>Nope.

Hi Tom,

Then, exactly WHAT are you trying to accomplish? And when will we
know you are finished? ;-)

73's
Richard Clark, KB7QHC

729. AM/Single Side Band Base Station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 17:25:05 UTC
From: tsteve58 <tsteve58@yahoo.com>
Message-ID: <1118337905.120093.195200@g47g2000cwa.googlegroups.com>
Source record: 75295

Help Needed in setting up a AM/Single Side Band Base Station.
Sincerly Reply to tsteve58@yahoo.com

730. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 17:29:40 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <d89ua2rcp1@news.service.uci.edu>
Source record: 75296

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> Of course, my statement is related to steady-state. I don't
>>> see anything worth responding to, Jim. Where's the beef?
>>
>>
>> The problem is that there should only be a 1 second lapse of time
>> between the beginning of gozinta at 100 Joules/sec and the beginning
>> of comezouta at 100 Joules/sec. At what point is the additional 2
>> seconds worth of energy fed into the system?
>
>
> During the power-on transient phase. The load rejects half the incident
> power. To keep things simple, assume a very smart fast tuner. After
> one second, the feedline will contain 100 joules. The load will have
> accepted zero joules. After two seconds, the feedline will contain the
> 100 joules generated plus 50 joules rejected by the load and the load
> will have accepted 50 joules. Already the feedline contains 150 joules
> while the source is putting out 100 joules per second. After 'n'
> seconds, the line contains 300 joules, 100 from the source and 200
> rejected by the load during the power-on transient stage.
>
> seconds forward energy reflected energy load power
> 1 100 0 0
> 2 100 50 50
> 3 150 50 50
> 4 150 75 75
> 5 175 75 75
> 6 175 87.5 87.5
> 7 187.5 87.5 87.5
> 8 187.5 93.75 93.75
> 9 193.75 93.75 93.75
> 10 193.75 96.875 96.875
> n 200 100 100
>
> After 10 seconds the source has output 1000 joules. The load
> has accepted 709.375 joules. 290.625 joules are already stored
> in the feedline on the way to 300 joules during steady-state.
> This is simple classical reflection model stuff.

> If a load in rejecting half its incident power, the steady-
> state reflected power will equal the steady-state load
> power. The steady-state forward power will be double
> either one of those.

It really is an interesting theory. And I'm willing to concede on a certain point here. If we were to fit a curve to the data in your far right side column, what we have is a dispersion curve. That is a predictable phenomenon, most easily observable on long transmission lines. However as this is not actual data, an important column is missing. A column marked 'energy from source' is crucial to proving your point. Without running the experiment and taking the data we can't really know how much energy would be in any of the columns at any given time. When we assume what that energy might be, we run the risk of making an ass out of u and me. Well, mostly u. :-)

73, AC6XG

731. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 17:33:16 UTC
From: butlercellars <butlercellars@hotmail.com>
Message-ID: <y3%pe.13$W4.25@okeanos.csu.net>
Source record: 75297

Good suggestions, but there are no problems with the receiver, feedline, or antenna. And I know exactly where the xmitter towers are, including degrees orientation. Topo maps indicate I'm in a pocket; however, I thought FM signals would be more forgiving, not VHF and UHF TV as is the case.

FM portable w/ built-in whip antenna, dipole, or feedline/yagi reception is still marginal. My boat FM radio w/short rubber ducky performs as well as the car, but I don't want to sit in them to listen to the radio. As I stated in my original post, my VHF antenna has 1/2 wave horizontal FM elements too. The antenna works great for TV, but not FM. There's just something about my terrain where 1/2 wave horizontal FM elements are ineffective. Therefore, I'd like to try a good vertical (semi-vertical) omni.

-Bob

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ggrga1ti0qobg8omqs165ta046rqdtoq08@4ax.com...
> On Thu, 9 Jun 2005 08:10:41 -0700, "butlercellars"
> <butlercellars@hotmail.com> wrote:
>
>>You'd think that aiming it east, southeast, or south towards all those
>>transmitters would pull in something, but gain is very weak.
>
> Hi Bob,
>
> Metropolitan FM stations are not always located downtown.
>
>>However, if I
>>point it northwest, at about 45 degrees up the hill behind me, I can
>>actually pull in a few decent stations.
>
> This may be evidence of where the transmitters are.
>
>> Aiming the antenna in the opposite
>>direction of the stations just seems contrary to logic. I understand that
>>ground waves travel parallel to the earth, but could the signals be
>>bouncing
>>off the hillside too, acting like a huge reflector?
>
> Yes, very much so at this frequency. As in gold prospecting, the
> signal is where you find it.
>
>>The thing that really gets me is that I can get excellent reception on all
>>stations in my car sitting in the driveway, and driving around. Therefore,

>>I'm thinking of dumping the yagi and trying to find or build a vertically
>>polarized omni antenna.
>
> This is more telling. It suggests that perhaps you haven't properly
> connected either the antenna to the feeline, or the feedline to the
> receiver, or yes the antenna is still not pointed in the right
> direction - or you have a bum receiver. What about an FM portable
> with a whip antenna? What about that FM portable with your antenna
> feedline attached? If the whip works better, look at the feedline and
> up.
>
> 73's
> Richard Clark, KB7QHC

732. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 17:50:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jgvga1l847s79cu6bepggq9c4j8mv0bi9r@4ax.com>
Source record: 75298

On Thu, 9 Jun 2005 10:33:16 -0700, "butlercellars"
<butlercellars@hotmail.com> wrote:

>FM portable w/ built-in whip antenna, dipole, or feedline/yagi reception is
>still marginal. My boat FM radio w/short rubber ducky performs as well as
>the car, but I don't want to sit in them to listen to the radio.

Hi Bob,

This would suggest there is enough signal, or those working receivers
are exceptional. Go to Radio Shack and invest in a signal booster.
Get an over the air amplifier rather than a line amplifier. If
there's a separate line for the FM, from the antenna, get a mast
mounted, line powered amplifier.

It is odd that all the FM stations would be solely vertical
polarization. This would explain the horizontal antenna deafness.
There is also the old real-estate saw of "location, location,
location" and as you offer, yours sucks (maybe). Sitting there in the
Napa valley, are you trying to hit Frisco?

73's
Richard Clark, KB7QHC

733. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 17:58:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <te0ha19athdetcqt0frtj40ffs5cch4v3i@4ax.com>
Source record: 75299

On Thu, 09 Jun 2005 10:50:11 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Get an over the air amplifier rather than a line amplifier. If
>there's a separate line for the FM, from the antenna, get a mast
>mounted, line powered amplifier.

Hi Bob,

I noticed I used the word "line" in two senses here that may confuse.
The first actually means a line distribution amplifier. This is
usually used to augment a homes cable load of too many TV sets. The
other sense is a transmission line powered amplifier mounted on the
mast just beneath the antenna. Power into the transmission line and
up to the amplifier is applied through a special unit down near the
receiver which handles keeping the DC separate from the RF.

73's
Richard Clark, KB7QHC

734. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 18:08:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a886b3$1_1@spool9-west.superfeed.net>
Source record: 75300

Jim Kelley wrote:
> A column marked 'energy from source' is crucial to proving
> your point.

Jim, I was hoping you were capable of multiplying 100 joules/sec
by the number of seconds to get the total number of joules
delivered to the system over time by the source. My 1000 joules
after ten seconds is 100 joules/sec multiplied by ten seconds.
Is that math too difficult for you? :-)

Maybe you need a simpler example. Here it is:

100w SGCL source----one second long feedline----load

The SGCL source is a signal generator equipped with a circulator
and circulator load. The circulator load dissipates all the
reflected power incident upon the signal generator. The signal
generator outputs a constant 100 watts.

The load is chosen such that the power reflection coefficient
is equal to 0.5, i.e. half the power incident upon the load
is reflected and half accepted by the load.

This configuration reaches steady-state in 2+ seconds. After 2+
seconds, the forward wave contains 100 joules and the reflected
wave contains 50 joules. 50 watts is being dissipated by the
load and 50 watts is being dissipated by the circulator load.
The source has output 150 joules of energy that has not been
dissipated by the load or the circulator load. 150 joules is
exactly the amount of energy to support the energy levels of
the forward wave and the reflected wave.

What could be simpler than that if you really believe in the
conservation of energy principle?
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

735. Re: Need Antenna Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 18:37:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ec2ha15ilkmnl7bi09vq9uh8opo8hmlt1a@4ax.com>
Source record: 75301

On Thu, 09 Jun 2005 12:20:51 -0400, Rob Ramm
<nospamtherammer@hotmail.com> wrote:

>My question is, has anyone used these as a television antenna. I know
>they claim 10-12db gain across the whole band which is what my TV
>antenna boasted as well.

Hi Rob,

Typical specifications, yes.

>I have seen posts that they do not really
>have as much gain as Create says, but then, does my Delhi Deep Fringe
>tv antenna which I have to replace also have the stated 7db gain on
>VHF lo and 13db gain on VHF-HI/UHF.

All of this is also specs-manship. For the TV antenna, this gain can
be found for some regions and not others; and they can still claim the
better figures. The TV UHF band is immense, but in reality very
little of it is actually populated. The FCC of the late 40's must
have thought 88 channels would be needed eventually. They were wrong,
several hundred channels selling hoop earrings 24 hours a day would
have been an appalling prospect back then, and Newton Minnow would
have foamed at the mouth sputtering "vast wasteland."

>Do these work good as a tv antenna? You may say this is a bit extreme
>in cost. The wind loading on these antennas is stated around 1 square
>ft . Their relitively small "wind footprint" is attractive to me

You might find another vendor that offers a smaller antenna that
covers LESS spectrum with as much or more gain for all of your
pursuits. LPDAs are quite easy to predict (although the doing is a
bear) and as they are flat responsive (this is a trade-off for lower
gain with having so many elements) they represent a good general
coverage average gain solution.

73's
Richard Clark, KB7QHC

736. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 18:56:34 UTC
From: Mark <makolber@yahoo.com>
Message-ID: <1118343394.708147.102180@g47g2000cwa.googlegroups.com>
Source record: 75302

Richard Clark wrote:
> On Thu, 09 Jun 2005 10:50:11 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
> >Get an over the air amplifier rather than a line amplifier. If
> >there's a separate line for the FM, from the antenna, get a mast
> >mounted, line powered amplifier.
>
> Hi Bob,
>
> I noticed I used the word "line" in two senses here that may confuse.
> The first actually means a line distribution amplifier. This is
> usually used to augment a homes cable load of too many TV sets. The
> other sense is a transmission line powered amplifier mounted on the
> mast just beneath the antenna. Power into the transmission line and
> up to the amplifier is applied through a special unit down near the
> receiver which handles keeping the DC separate from the RF.
>
> 73's
> Richard Clark, KB7QHC

Try orienting your Yagi with the elements vertical like the car antenna
is.

Also try another receiver.

If you car radio picks up the stations in front of your house, you
should be able to get them with your receiver. If not, your
receiver, ant cable or ant are broke.

Mark

737. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 19:02:29 UTC
From: Buck <iam@this.site>
Message-ID: <gh4ha1php1ro19fktseiu3p8t55ra9csjr@4ax.com>
Source record: 75303

On Thu, 09 Jun 2005 11:38:22 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> I am a little confused, so bare with me.....
>>
>> I put up an antenna with 50 ohm of impedance. I feed it with any
>> length of 300 ohm feed less than 1/2 L. Then I run 1/2 L of 50 ohm
>> feed to the radio and I have the 50 ohm match?
>
>Nope, 50 ohms is only one of an infinite number of impedances
>you might encounter. For 50 ohms, you feed it with 1/2WL of
>300 ohm feedline. This is similar to (but not exactly like)
>a G5RV used on 20m.
>
>> I put up a 300 ohm antenna. I feed it with 300 ohm twin lead for less
>> than 1/2 L and 1/2 L of 50 ohm feedline. Is this a 50 ohm match?
>
>Nope, you cannot transform the impedance of a 300 ohm antenna
>using 300 ohm feedline. You need reflections to cause an
>impedance transformation. A 300 ohm antenna impedance is
>not within the green doughnut area below.
>
>The range of impedances that can be matched with a length of
>450 ohm ladder-line are represented by the green doughnut at:
>
>http://www.qsl.net/w5dxp/smith.htm
>
>The impedances outside the green area cannot be matched by
>only one 450 ohm matching section. The area in the doughnut
>hole cannot be matched by only one 450 ohm matching section.

When I click on your links, I get connection refused from qsl.net

--
73 for now
Buck
N4PGW

738. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 19:08:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a894cb$1_2@spool9-west.superfeed.net>
Source record: 75304

Buck wrote:
> When I click on your links, I get connection refused from qsl.net

qsl.net is not very fast or reliable. I just tried it
and was refused. Maybe too many present users. Try
again later.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

739. Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 19:37:30 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <uh6ha15pt3g7jk6u7s6sf6ampoddkq0q3f@4ax.com>
Source record: 75305

Test to determine why my posts have not been accepted.

W2DU

740. Re: Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 19:52:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nd7ha1pq6abhurqpim9cj667gtdj4p8slc@4ax.com>
Source record: 75306

On Thu, 09 Jun 2005 15:37:30 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>Test to determine why my posts have not been accepted.

Hi Walt,

I've seen every one of your tests using Agent. Why do you think it
doesn't work anymore?

73's
Richard Clark, KB7QHC

741. FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 20:17:10 UTC
From: butlercellars <butlercellars@hotmail.com>
Message-ID: <d8a846$r6c$1@xuxa.iecc.com>
Source record: 75308
Cross-posted to: misc.consumers.house,rec.radio.amateur.antenna,rec.radio.broadcasting,sci.engr.television.broadcast

Our local cable company, Comcast, doesn't carry FM radio signals; therefore, I'm trying to improve my FM reception on my home receiver. I've had separate VHF and UHF antennas up for HDTV several years. They work wonders for HD and even analog TV, but the FM element on the VHF yagi surprisingly doesn't pick up much. Part of my problem is that I'm on an east facing hillside in the foothills directly north of one major metro market area and directly west of another. Despite that, I don't understand why I can get decent TV reception but no FM.

After limited success with a homebrew folded dipole, I picked up a high gain three element FM yagi. No matter where I seem to point it, I'm not getting any more signal strength than with the dipole on the back of the receiver. You'd think that aiming it east, southeast, or south towards all those transmitters would pull in something, but gain is very weak. However, if I point it northwest, at about 45 degrees up the hill behind me, I can actually pull in a few decent stations. Aiming the antenna in the opposite direction of the stations just seems contrary to logic. I understand that ground waves travel parallel to the earth, but could the signals be bouncing off the hillside too, acting like a huge reflector?

The thing that really gets me is that I can get excellent reception on all stations in my car sitting in the driveway, and driving around. Therefore, I'm thinking of dumping the yagi and trying to find or build a vertically polarized omni antenna. My car antenna does happen to be mounted at about 45 degrees. Any ideas on what might be going on, and how I might improve my reception? Any antenna designs and dimensions would be helpful. I guess worst case scenario is I can go down to the auto parts store, by a car antenna, and put it on my roof.

Please help. Many thanks!

-Bob

742. Re: folding an antenna leg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 20:20:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u88ha154u4d5mlbg32mfir50fi0ovms5a2@4ax.com>
Source record: 75307

On Thu, 09 Jun 2005 05:06:52 GMT, Justï¿½n Kï¿½se
<chupacabra@operamail.com> wrote:
>Which is a better method of folding the legs;
>having them form spiral or zigzag patterns?

Hi OM,

Without becoming too exaggerated, almost anything will offer the same results. Even by being too exaggerated, there is barely any problem to anticipate. At some level, you achieve what is called linear loading which at the extreme would be all the wire formed up in a loose coil 1/10th the size of a normal antenna. This too would work, but you are bordering efficiency issues. However, if you could force it to tune, it would probably do just as well (ï¿½6dB, or the mythical S-Unit).

So the question becomes one of what is the continuum of performance?

As long as the wire is remote from structures and earth, excess up to a 25% of the total length of the element could wave in the breeze, or be folded back upon itself (without shorting) or follow any path you choose. Likewise you could zigzag the entire length to absorb that same 25% that would not fit otherwise. Take care that the arbitrary line at 25% is arrived at by no better choice at limiting it at 10% or 50%.

This problem has enough complexity, but not too much, that you could examine the variations by using the free form of EZNEC.

73's
Richard Clark, KB7QHC

743. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 20:30:18 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2ff69$42a8a6db$97d55d24$12172@ALLTEL.NET>
Source record: 75309

You can't match a 300 ohm antenna with 300 ohm line. A matching section relies on SWR (read reflections) to match.

once matched, any impeadence feed line may be used from the matched point as long as it is an electrical half wavelength or multiple at the frequency of interest.

The only difference will be the SWR on the line. Your rig would still see the SWR ar the match point.

Given an antenna that has 50 Ohms +J0, feed it with 50 ohm line and the swr for the system is 1:1, substitute a 1/2 wave of 450 ohm line and the antenna and the rig are both at 50 ohms. The SWR on the feedline is 450/50 or 9:1.

Look at the half wave of feedline as two back to back 1/4 wave matching sections. The SWR on the feedline is of no consequece as the losses are so low as not to have a practical effect.

"Buck" <iam@this.site> wrote in message
news:n4nga197lc1coe6kodnq6algelc4noeq84@4ax.com...
> I am a little confused, so bare with me.....
>
> I put up an antenna with 50 ohm of impedance. I feed it with any
> length of 300 ohm feed less than 1/2 L. Then I run 1/2 L of 50 ohm
> feed to the radio and I have the 50 ohm match?
>
> similar:
>
> I put up a 300 ohm antenna. I feed it with 300 ohm twin lead for less
> than 1/2 L and 1/2 L of 50 ohm feedline. Is this a 50 ohm match?
>
> (L=Lamda)
>
> Thanks
> Buck
>
>
>
>
>
> On Thu, 9 Jun 2005 00:27:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >No buck, the line is always longer than 1/2 wave. It is a matching
section
> >from what is at the antenna to 50 ohms, and then 1/2 wave from that

point.
> >
> >"Buck" <iam@this.site> wrote in message
> >news:k58ea11bjn63qoqhfavn2slms81vku7tvq@4ax.com...
> >> Pardon me while I learn from this discussion.
> >>
> >> The 450 ohm antenna is designed to be tuned by using exactly 1/2
> >> electrical wave lengths to match both the transmitter and antenna.
> >> This should mean that any differing feedline should work equally as
> >> well (except for the losses) if I am correct....
> >>
> >>
> >>
> >>
> >> On Tue, 7 Jun 2005 18:02:43 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> >> wrote:
> >>
> >> >I feed it with an electrical 1/2 wave length of exactly 450 Ohm
feedline.
> >> >The 50 Ohms from my antenna is repeated at the other end of the
feedline.
> >An
> >> >SWR bridge calibrated for 50 Ohms and my rig see 1:1.
> >>
> >> --
> >> 73 for now
> >> Buck
> >> N4PGW
> >
>
> --
> 73 for now
> Buck
> N4PGW

744. Re: Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 20:44:50 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <p2aha1l97k7ps2qs68jor7bsulkp1sp572@4ax.com>
Source record: 75310

On Thu, 09 Jun 2005 12:52:27 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

>On Thu, 09 Jun 2005 15:37:30 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>Test to determine why my posts have not been accepted.
>
>Hi Walt,
>
>I've seen every one of your tests using Agent. Why do you think it
>doesn't work anymore?
>
>73's
>Richard Clark, KB7QHC

Hi Richard,

It's because this is the first test I've posted that I've seen come back onto the screen, and also because I've entered numerous msgs that fail to send, with the error msg that the server unexpectedly disconnected.

This situation has gone on for a few weeks, until today I when tried it again, and for some strange reason it works. I have no clue to why my server disconnected unexpectedly every time until today.

On the other hand, in the 'agent.ini' file my pop address is still listed as pop.iag.net, which has been canceled. I have changed the address in the options menu to pop.1and 1, which I'm using.

Anyway, I'm pleased that it works again, and thank you for your concern.

Walt

745. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 21:17:07 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8abki$7gt$1@news.service.uci.edu>
Source record: 75311

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> A column marked 'energy from source' is crucial to proving your point.
>
>
> Jim, I was hoping you were capable of multiplying 100 joules/sec
> by the number of seconds to get the total number of joules
> delivered to the system over time by the source. My 1000 joules
> after ten seconds is 100 joules/sec multiplied by ten seconds.
> Is that math too difficult for you? :-)

:-) My contention is that it's too remedial. What you require is faith, not math. Is the source supposed to be a virtual fire hydrant of constant energy, or is it more like a real system? You seem to be assuming a constant 100 Joules per second input, regardless of the fact that the impedance the source sees is changing over the interval. That's not particularly realistic, hence a need for the empirical. But we could assume that the source is constant, and continue.

> Maybe you need a simpler example. Here it is:
>
> 100w SGCL source----one second long feedline----load
>
> The SGCL source is a signal generator equipped with a circulator
> and circulator load. The circulator load dissipates all the
> reflected power incident upon the signal generator. The signal
> generator outputs a constant 100 watts.

> The load is chosen such that the power reflection coefficient
> is equal to 0.5, i.e. half the power incident upon the load
> is reflected and half accepted by the load.
>
> This configuration reaches steady-state in 2+ seconds. After 2+
> seconds, the forward wave contains 100 joules and the reflected
> wave contains 50 joules. 50 watts is being dissipated by the
> load and 50 watts is being dissipated by the circulator load.
> The source has output 150 joules of energy that has not been
> dissipated by the load or the circulator load.

You have provided a lot of detail about where it all resides and in what proportions, but you still haven't shown how much energy a source would actually produce under such circumstances. Further, you're assuming that energy would move forward in a transmission line at a rate higher than the rate at which it is provided by the source. This is highly

speculative and suspect. What we know for sure is, once steady state is achieved, energy is absorbed by the load(s) at the same rate at which it is generated, all the energy from the source goes to the load(s). Given that, there's very little impetus to believe that there need be any more than one second's worth of energy held within a one second long transmission line. It is therefore reasonable to contend that in the first scenario, 100 Joules of energy is held within the transmission line as it propagates toward the load. And in this latest scenario, 50 Joules is heading toward the load, and 50 is in the path to the circulator for a total of 100 Joules stored within the one second long transmission line.

The way to prove that there's any greater surplus of energy held within the transmission line would be to make the energy vs. time measurements at each end of such a transmission line. Absent that, it's purposeful speculation.

73, AC6XG

746. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 21:47:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ahe7q1o2khp84@corp.supernews.com>
Source record: 75312

Cecil Moore wrote:
> . . .
> Yes, you are right about that. But one can visualize the interference
> by inserting 1WL of lossless 200 ohm feedline between the source and
> the 50 ohm line which changes virtually nothing outside of the 200
> ohm line.
>
> 100v/50ohm source with 80v at the output terminals.
>
> 80v--1WL lossless 200 ohm line--+--1/2WL 50 ohm line--200 ohm load
>
> The source sees the same impedance as before. The same impedance as
> before is seen looking back toward the source. Voltages, currents,
> and powers remain the same. But now the interference patterns are
> external to the source and can be easily analyzed.

Hm, I wasn't having any trouble analyzing the system without the 200 ohm line. Why do you have to make the system more complex in order to apply your theory? Looking back at previous postings, it appears that any time anyone presents a model that gives you difficulty, you simply modify it to suit yourself, and deflect the discussion. I'm not interested in whether you can explain your theories in models of your choice. What remains to be shown is whether you can do so for the extremely simple model I proposed. You might recall that the first example in my posting in response to H's claim did indeed have source resistor dissipation equal to the "reverse power" -- it's much easier to apply a defective theory if you're free to choose special cases that support it. A valid theory should be able to work on all models, unless you clearly give the boundaries of its validity and why it has those limitations.

>> It baffles me how you think you can calculate the line's stored energy
>> without knowing its time delay.
>
>
> The time delay was given at one second, Roy. I really wish you would
> read my postings. Here is the quote from the earlier posting:
>
> **
> * If we make Roy's lossless 50 ohm feedline one second long (an *
> * integer number of wavelengths), during steady-state, the source *
> * will have supplied 68 joules of energy that has not reached the *
> * load. That will continue throughout steady state. The 68 joules *
> * of energy will be dissipated by the system during the power-off *
> * transient state. *
> **

>
> I DIDN'T EVER TRY TO CALCULATE THE STORED ENERGY IN YOUR LINE. But a
> VF could be assumed for your lossless line and a delay calculated
> from the length. Or you can just scale my one second line down to a
> one microsecond line. The results will conceptually be the same. Of
> course, the one microsecond line would have to be defined as an integer
> number of half wavelengths but the frequency could be chosen for that
> result.
>
> So 68 microjoules would be be stored in that one microsecond feedline,
> 50 microjoules in the forward wave and 18 microjoules in the reflected
> wave. The source is still supplying 32 microjoules per microsecond and
> there is exactly enough energy stored in the feedline to support the
> energy in the forward wave and reflected wave as predicted by the wave
> reflection model or S-parameter analysis.
>
>> The calculation of stored energy is simple enough, but it requires
>> knowledge of the line's time delay.
>
>
> The time delay was given, Roy, at one second. See the above quote.
> That technique changes watts to joules. Buckets of joules are not
> as easy to hide as watts.

I apologize for not having read your posting more carefully. When I get snowed or when the discussion deviates from the point in question, I do tend to not read the rest. Because the stored energy has nothing to do with what happens to the waves of bouncing average power in steady state, I did ignore your details about it. Double my line length and the waves of bouncing average power have the same values as before, although the stored energy has doubled.

>
> If the forward power and reflected power remain the same, doubling the
> length of the feedline must necessarily double the amount of energy
> stored in the forward and reflected waves. That fact supports my side
> of the argument, not yours.

I'm not sure what you think my side of the argument is. That a transmission line doesn't contain stored energy? Of course it does. (See below, where I calculate it using conventional wave mechanics.) I'm simply asking where your imaginary waves of bouncing average power go in a painfully simple steady state system.

Your argument is that there are waves of bouncing average power. I asked where they went in the simple circuit I described. Calculation of the energy stored in the line does nothing to explain it. All it does is create the necessary diversion to deflect the discussion from the fact that you don't know or at best have only a vague and general idea.

Here's a derivation of the energy stored in the line using conventional wave mechanics:

T is the time it takes a wave to traverse the line in one direction. The analysis begins at t = 0, with the line completely discharged, at which time the source is first turned on.

1. From time t = 0 to T, the impedance seen looking into the line is 50 ohms, so the 100 volt source sees 100 ohms. Source current = 1 amp, source is delivering 100 watts, source resistor is dissipating 50 watts, and load resistor is dissipating zero. Therefore the energy being put into the line is 100 - 50 = 50 watts * t.
2. From time t = T to 2T, all the conditions external to the line are the same as above, except that the load resistor is now dissipating 32 watts, so the net energy being put into the line from the source is 100 - 50 - 32 = 18 watts * (t - T).
3. After time = 2T, steady state occurs, with the conditions I gave originally. From that time onward, the power into the line equals the power out, so no additional energy is being stored.

It's obvious from the above that the energy stored in the line from 0 to T = 50 * T joules, and from T to 2T = 18 * T joules, for a total energy storage of 68 * T joules.

No bouncing waves of average power are required; this can be completely solved, as can all other transmission line problems, by looking at voltage and current waves, along with simple arithmetic. I didn't bother doing this earlier simply because it's irrelevant; it has nothing to do with steady state conditions any more than the DC charge on a capacitor has to do with an AC circuit analysis. The only reason it's important is that it provided you with yet another way to divert the discussion from the question of what happens to those imaginary waves of bouncing average power in the steady state.

In the steady state we've got energy stored in the line (of course), and 18 watts of "reverse power". 8 watts is being dissipated in the source resistor. We can store just as much or little energy in the line as we choose by changing its length; as long as the line remains an integral number of half wavelengths long, there's no change to the line's "forward power", "reverse power" or any external voltage, current, or power. In fact, if we choose a line length that's not an integral number of half wavelengths long, we change the dissipation in the source and load resistors without any change in the "forward power", "reverse power", or reflection coefficients at either end of the line.

Your postings indicate that in your mind you've completely explained where the bouncing waves of average power are going, what they do, and why. If I'm correct and this is indeed all you have to offer, I'll once again bow out. I look forward to a careful reading of the QEX article.

Roy Lewallen, W7EL

747. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 21:59:40 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <gZ2qe.1611$eM6.786@newsread3.news.atl.earthlink.net>
Source record: 75313

"John Smith" <assemblywizard@gmail.com> wrote in message
news:bnJoe.44$ZT4.4723761@news.sisna.com...
> Isn't the antron a very similar antenna--if not the same ant marketed
> under another name?
>
> John
>
> "Buck" <iam@this.site> wrote in message
> news:8el6a1t8pe788lom0cijoesenn893ip1j1@4ax.com...
>> Does anyone know where I can find the instructions or manual for a
>> Solarcon A-99 antenna? I recently acquired one and would like to know
>> more.
>>
>> Thank you
>>
>>
>> --
>> 73 for now
>> Buck
>> N4PGW
>
>
Some folks say to cut the vertical element to make for a better resonance on
ten meters. Don't do that. Leave it as is.

About all the three radials on the bottom due is possible decouple the
feedline a bit. It will work fine with or without.

Adjust the two rings almost all the way out and it should hit fine on ten
meters. The antenna works on 15 also with about a 1.5 to 1. I never tried
it on 12. I doubt it will do much below 15 meters.

Dan/W4NTI

748. Re: AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 22:22:35 UTC
From: Lawrence ben' Franklin <lawrence_ben_franklin@yahoo.com>
Message-ID: <1118355755.952413.151900@g49g2000cwa.googlegroups.com>
Source record: 75314
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

OY VEY!!! WHAT ARE THE ISRAELIS DOING TO AMERICAN JEWS?

WE NEED DAMAGE CONTROL ASAP.

Thanks for trying to come to the aid of our nation.

AIPAC sucks. They are unsavory and sneaky and untrustworthy and
unworthy of even our contempt.

Put them on the blacklist, one and all.

The HAARP and the NIF are even more dangerous than AIPAC which just
> > planted a few Mossad spies into the Pentagon and they sold the secrets
> > stolen to Israeli high tech and EM weapons national industries there.

AIPAC spies in the Pentagon and White House
http://www.whatreallyhappened.com/motherofallscandals.html

http://www.rense.com/general56/supreb.htm
Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon
Affairs
http://www.rense.com/general57/linkcon.htm

Yes. NIF and HAARP are run by the same Pentagon group.

Israeli Spying:
The Mother of all Scandals
Once again, Israel has been caught with spies at the highest levels of
the US Government.

At the heart of the investigation are two people who work at The
American Israel Public Affairs Committee (AIPAC), a powerful pro-Israel
lobby in Washington. The FBI investigation, headed up by Dave Szady,
has involved wiretaps, undercover surveillance and photography that CBS
News was told document the passing of classified information from the
mole, to the men at AIPAC, and on to the Israelis.

CBS sources say that last year the suspected spy, described as a
trusted analyst at the Pentagon, turned over a presidential directive
on U.S. policy toward Iran while it was, "in the draft phase when U.S.
policy-makers were still debating the policy." This put the Israelis,
according to one source, "inside the decision-making loop" so they
could "try to influence the outcome." [CBS News]

Once again Israel denies wrongdoing, or faced with incontrovertible evidence (in this case one of the spies has reportedly cooperated with the FBI) dismisses the spying with the claim that such spying is harmless, because Israel and the United States are such good friends.

Well, let us take a closer look at that idea of "harmless espionage" by recalling Israel's most famous failed spy, Jonathan Pollard.

Jonathan Pollard is an American of Jewish descent, born in Galveston Texas, who established a career as an intelligence analyst for the US Navy. There have been many theories offered as to why Pollard decided to betray his country of birth to the Jewish state, but that Pollard did betray his country of birth to Israel is beyond all doubt. Pollard's defense was that he did not spy so much against the United States, only that he spied for Israel, sending them documents that in his opinion the US should have shared with Israel anyway.

That it was never Pollards job to decide what documents Israel should have was apparently irrelevant. Pollard arrogated that authority to himself. From his position of trust within the US Navy, Pollard delivered over 1000 classified documents to Israel for which he was well paid. Included in those documents were the names of over 150 US agents in the Mideast, who were eventually "turned" into agents for Israel.

But by far the most egregious damage done by Pollard was to steal classified documents relating to the US Nuclear Deterrent relative to the USSR and send them to Israel. According to sources in the US State Department, Israel then turned around and traded those stolen nuclear secrets to the USSR in exchange for increased emigration quotas from the USSR to Israel. Other information that found its way from the US to Israel to the USSR resulted in the loss of American agents operating inside the USSR. Casper Weinberger, in his affidavit opposing a reduced sentence for Pollard, described the damage done to the United States thus, "[It is] difficult to conceive of a greater harm to national security than that caused by... Pollard's treasonous behavior."

This should end the suggestion that Israel's spies are harmless. They are not. The United States' nuclear deterrent cost an estimated five trillion taxpayer dollars during the 50s and 60s to build and maintain, and less than $100,000 for Pollard to undermine. Israel waited 13 years to admit Pollard had been spying for them, and now lobbies for his release, having granted him Israeli citizenship.

Pollard is hardly the only Israeli spy operating in the United States. He just had the misfortune to get caught. Here are just a few examples of the Israeli spy operations that have been detected.

1947. Information collected by the ADL in its spy operations on US citizens is used by the House Select Committee on Unamerican Activities. Subcommittee Chair Clare Hoffman dismisses the ADL's reports on suspected communists as "hearsay."

1950 John Davitt, former chief of the Justice Department's internal security section notes that the Israeli intelligence service is the second most active in the United States after the Soviets.

1954 A hidden microphone planted by the Israelis is discovered in the Office of the US Ambassador in Tel Aviv.

1956 Telephone taps are found connected to two telephones in the residence of the US military attaché in Tel Aviv.

1954 "The Lavon Affair". Israeli agents recruit Egyptian citizens of Jewish descent to bomb Western targets in Egypt, and plant evidence to frame Arabs, in an apparent attempt to upset US-Egyptian relations. Israeli defense minister Pinchas Lavon is eventually removed from office, though many think real responsibility lay with David Ben-Gurion.

1965 Israel apparently illegally obtains enriched uranium from NUMEC Corporation. (Washington Post, 6/5/86, Charles R. Babcock, "US an Intelligence Target of the Israelis, Officials Say.")

1967 Israel attacks the USS Liberty, an intelligence gathering vessel flying a US flag, killing 34 crew members. See "Assault on the Liberty," by James M. Ennes, Jr. (Random House). In 2004, Captain Ward Boston, Senior Legal Counsel for the Navy's Court of Inquiry into the attack swears under oath that President Lyndon Johnson ordered the investigation to conclude accident, even though the evidence indicates the attack was deliberate. Given the use by Israel of unmarked boats and planes, and the machine-gunning of USS Liberty's lifeboats, the most likely explanation is that USS Liberty was to be sunk with all hands, with evidence left to frame Egypt for the sinking. This would have dragged the US into the war on Israel's side.

1970 While working for Senator Henry "Scoop" Jackson, Richard Perle is caught by the FBI giving classified information to Israel. Nothing is done.

1978, Stephen Bryen, then a Senate Foreign Relations Committee staffer, is overheard in a DC hotel offering confidential documents to top Israeli military officials. Bryen obtains a lawyer, Nathan Lewin, and the case heads for the grand jury, but is mysteriously dropped. Bryen later goes to work for Richard Perle.

1979 Shin Beth [the Israeli internal security agency] tries to penetrate the US Consulate General in Jerusalem through a "Honey Trap", using a clerical employee who was having an affair with a Jerusalem girl.

1985 The New York Times reports the FBI is aware of at least a dozen incidents in which American officials transferred classified information to the Israelis, quoting [former Assistant Director of the F.B.I.] Mr. [Raymond] Wannal. The Justice Department does not prosecute.

1985 Richard Smyth, the owner of MILCO, is indicted on charges of smuggling nuclear timing devices to Israel (Washington Post, 10/31/86).

1987 April 24 Wall Street Journal headline: "Role of Israel in Iran-Contra Scandal Won't be Explored in Detail by Panels"

1992 The Wall Street Journal reports that Israeli agents apparently tried to steal Recon Optical Inc's top-secret airborne spy-camera system.

1992 Stephen Bryen, caught offering confidential documents to Israel in 1978, is serving on board of the pro-Israeli Jewish Institute for National Security Affairs while continuing as a paid consultant -- with security clearance -- on exports of sensitive US technology.

1992 "The Samson Option," by Seymour M. Hersh reports, "Illicitly obtained intelligence was flying so voluminously from LAKAM into Israeli intelligence that a special code name, JUMBO, was added to the security markings already on the documents. There were strict orders, Ari Ben-Menashe recalled: "Anything marked JUMBO was not supposed to be discussed with your American counterparts."

1993. The ADL is caught operating a massive spying operation on critics of Israel, Arab-Americans, the San Francisco Labor Council, ILWU Local 10, Oakland Educational Association, NAACP, Irish Northern Aid, International Indian Treaty Council, the Asian Law Caucus and the San Francisco police. Data collected was sent to Israel and in some cases to South Africa. Pressure from Jewish organizations forces the city to drop the criminal case, but the ADL settles a civil lawsuit for an undisclosed sum of cash.

1995 The Defense Investigative Service circulates a memo warning US military contractors that "Israel aggressively collects [US] military and industrial technology." The report stated that Israel obtains information using "ethnic targeting, financial aggrandizement, and identification and exploitation of individual frailties" of US citizens.

1996 A General Accounting Office report "Defense Industrial Security: Weaknesses in US Security Arrangements With Foreign-Owned Defense Contractors" found that according to intelligence sources "Country A" (identified by intelligence sources as Israel, Washington Times, 2/22/96) "conducts the most aggressive espionage operation against the United States of any US ally." The Jerusalem Post (8/30/96) quoted the report, "Classified military information and sensitive military technologies are high-priority targets for the intelligence agencies of this country." The report described "An espionage operation run by the intelligence organization responsible for collecting scientific and technologic information for [Israel] paid a US government employee to obtain US classified military intelligence documents." The Washington Report on Middle East Affairs (Shawn L. Twing, April 1996) noted that this was "a reference to the 1985 arrest of Jonathan Pollard, a civilian US naval intelligence analyst who provided Israel's LAKAM

[Office of Special Tasks] espionage agency an estimated 800,000 pages of classified US intelligence information."

The GAO report also noted that "Several citizens of [Israel] were caught in the United States stealing sensitive technology used in manufacturing artillery gun tubes."

1996 An Office of Naval Intelligence document, "Worldwide Challenges to Naval Strike Warfare" reported that "US technology has been acquired [by China] through Israel in the form of the Lavi fighter and possibly SAM [surface-to-air] missile technology." Jane's Defense Weekly (2/28/96) noted that "until now, the intelligence community has not openly confirmed the transfer of US technology [via Israel] to China." The report noted that this "represents a dramatic step forward for Chinese military aviation." (Flight International, 3/13/96)

1997 An Army mechanical engineer, David A. Tenenbaum, "inadvertently" gives classified military information on missile systems and armored vehicles to Israeli officials (New York Times, 2/20/97).

1997 The Washington Post reports US intelligence has intercepted a conversation in which two Israeli officials had discussed the possibility of getting a confidential letter that then-Secretary of State Warren Christopher had written to Palestinian leader Yasir Arafat. One of the Israelis, identified only as "Dov", had commented that they may get the letter from "Mega", the code name for Israel's top agent inside the United States.

1997 US ambassador to Israel, Martin Indyk, complains privately to the Israeli government about heavy-handed surveillance by Israeli intelligence agents.

1997 Israeli agents place a tap on Monica Lewinsky's phone at the Watergate and record phone sex sessions between her and President Bill Clinton. The Ken Starr report confirms that Clinton warned Lewinsky their conversations were being taped and ended the affair. At the same time, the FBI's hunt for "Mega" is called off.

2001 It is discovered that US drug agents' communications have been penetrated. Suspicion falls on two companies, AMDOCS and Comverse Infosys, both owned by Israelis. AMDOCS generates billing data for most US phone companies and is able to provide detailed logs of who is talking to whom. Comverse Infosys builds the tapping equipment used by law enforcement to eavesdrop on all American telephone calls, but suspicion forms that Comverse, which gets half of its research and development budget from the Israeli government, has built a back door into the system that is being exploited by Israeli intelligence and that the information gleaned on US drug interdiction efforts is finding its way to drug smugglers. The investigation by the FBI leads to the exposure of the largest foreign spy ring ever uncovered inside the United States, operated by Israel. Half of the suspected spies have been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for

dancing and cheering while the World Trade Towers collapse. Supposedly employed by Urban Moving Systems, the Israelis are caught with multiple passports and a lot of cash. Two of them are later revealed to be Mossad. As witness reports track the activity of the Israelis, it emerges that they were seen at Liberty Park at the time of the first impact, suggesting a foreknowledge of what was to come. The Israelis are interrogated, and then eventually sent back to Israel. The owner of the moving company used as a cover by the Mossad agents abandons his business and flees to Israel. The United States Government then classifies all of the evidence related to the Israeli agents and their connections to 9-11. All of this is reported to the public via a four part story on Fox News by Carl Cameron. Pressure from Jewish groups, primarily AIPAC, forces Fox News to remove the story from their website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company with offices just a few blocks from the World Trade Towers, receives an advance warning via the internet. The manager of the New York Office provides the FBI with the IP address of the sender of the message, but the FBI does not follow up.

2001 The FBI is investigating 5 Israeli moving companies as possible fronts for Israeli intelligence.

2001 JDL's Irv Rubin arrested for planning to bomb a US Congressman. He dies before he can be brought to trial.

2002 The DEA issues a report that Israeli spies, posing as art students, have been trying to penetrate US Government offices.

2002 police near the Whidbey Island Naval Air Station in southern Washington State stop a suspicious truck and detain two Israelis, one of whom is illegally in the United States. The two men were driving at high speed in a Ryder rental truck, which they claimed had been used to "deliver furniture." The next day, police discovered traces of TNT and RDX military-grade plastic explosives inside the passenger cabin and on the steering wheel of the vehicle. The FBI then announces that the tests that showed explosives were "false positived" by cigarette smoke, a claim test experts say is ridiculous. Based on an alibi provided by a woman, the case is closed and the Israelis are handed over to INS to be sent back to Israel. One week later, the woman who provided the alibi vanishes.

2003 The Police Chief of Cloudcroft stops a truck speeding through a school zone. The drivers turn out to be Israelis with expired passports. Claiming to be movers, the truck contains junk furniture and several boxes. The Israelis are handed over to immigration. The contents of the boxers are not revealed to the public.

2003 Israel deploys assassination squads into other countries, including the United States. The US Government does not protest.

2004 Police near the Nuclear Fuel Services plant in Tennessee stop a truck after a three mile chase, during which the driver throws a bottle

containing a strange liquid from the cab. The drivers turn out to be Israelis using fake Ids. The FBI refuses to investigate and the Israelis are released.

2004 Two Israelis try to enter Kings Bay Naval Submarine Base, home to eight Trident submarines. The truck tests positive for explosives.

This brings us to the present scandal. Two years into an investigation of AIPAC's possible role as a spy front for Israel, Larry Franklin, a mid-level Pentagon Analyst is observed by the FBI giving classified information to two officials of AIPAC suspected of being Israeli spies. AIPAC hires lawyer Nathan Lewin to handle their legal defense, the same lawyer who defended suspected Israeli spy Stephen Bryen in 1978.

Larry Franklin worked in the Pentagon Office of Special Plans, run by Richard Perle, at the time Perle (who was caught giving classified information to Israel back in 1970) was insisting that Iraq was crawling with weapons of mass destruction requiring the United States to invade and conquer Iraq. There were no WMDs, of course, and Perle has dumped the blame for the "bad intelligence" on George Tenet. But what is known is that the Pentagon Office of Special Plans was coordinating with a similar group in Israel, in Ariel Sharon's office.

With two suspected Israeli spies (at least) inside the office from which the lies that launched the war in Iraq originated, it appears that the people of the United States are the victims of a deadly hoax, a hoax that started a war.

The leaking of the investigation of AIPAC to the media on August 28th, 2004 gave advance warning to other spies working with Franklin. The damage to the FBI's investigation was completed when United States Attorney General John Ashcroft ordered the FBI to stop all arrests in the case. Like the Stephen Bryen case and the hunt for "Mega", this latest spy scandal seems destined by officials who have their own secret allegiances to protect, barring a massive public outcry.

The organization at the heart of the latest spy investigation, AIPAC, wields tremendous influence over the US Congress. Through its members and affiliated PACs, AIPAC directs a huge flow of campaign cash in favor of, and occasionally against, Senators and Representatives solely on the basis of their willingness to support Israel. As an example, in 2002, U.S. Rep. Artur Davis, D-Birmingham received so much help from pro-Israeli pacs that 76% of his campaign budget came from OUTSIDE the state of Alabama, mostly from New York.

Let me repeat that. A Congressman AIPAC wanted elected received more money from pro-Israel groups outside his state than from his own constituents inside his state. Who is that Congressman going to be thinking of when he votes in Congress?

So here is the mother of all scandals.

For two years, the FBI has suspected AIPAC of spying for a foreign country, and for those two years (and for decades before) that group suspected of spying for Israel has been reshaping the US Congress for the benefit of a foreign government.

And THAT is the mother of all scandals.

Think about that as billions of your tax dollars flow to Israel while your roads and schools crumble and decay and services are cut.

Think about that as the coffins come home with your loved ones inside.

Think about that when you and a million of your fellow citizens march down the streets of America opposing wars built on lies and deceptions and wonder why the government just doesn't want to listen to you any more.

See also: Is Israel Blackmailing America?

749. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 22:41:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8c6a0$1_1@spool9-west.superfeed.net>
Source record: 75315

Jim Kelley wrote:
> You seem to be
> assuming a constant 100 Joules per second input, regardless of the fact
> that the impedance the source sees is changing over the interval.

It's a mental exercise, Jim. I told you it was equipped with
a very fast very smart autotuner. If you are cool with a one
second long lossless feedline, you should be cool with a
very fast very smart autotuner.

> You have provided a lot of detail about where it all resides and in what
> proportions, but you still haven't shown how much energy a source would
> actually produce under such circumstances.

It's too simple to mention. The signal generator is putting out a
constant 100 watts. Hint: multiply the watts (joules/sec) by the
number of seconds to get the total joules. Dimensional analysis
indicates the product will be joules.

> Further, you're assuming
> that energy would move forward in a transmission line at a rate higher
> than the rate at which it is provided by the source.

Nope, I'm not. All wave energy moves at the speed of light. You
are confused. 100 joules per second is headed toward the load.
50 joules per second is headed away from the load.

> This is highly speculative and suspect.

Easy to understand given your level of confusion. To get the forward
power, divide the load power by one minus the power reflection
coefficient. That's 50w/0.5 = 100 watts. That's how you calculate
forward power.

> ... there's very little impetus to believe that there need be any more
> than one second's worth of energy held within a one second long
> transmission line.

Jim, if you have 1.5 gallons in a tank with one gallon/sec flowing
in and one gallon/sec flowing out, how many gallons are in the tank?
You have to have enough energy in the feedline to support the
forward power and the reflected power. More or less than that
amount would violate the conservation of energy principle.

> It is therefore reasonable to contend that in the
> first scenario, 100 Joules of energy is held within the transmission
> line as it propagates toward the load.

Yes, half is headed into the load and half will be rejected by
the load.

> And in this latest scenario, 50 Joules is heading toward the load,

50 joules are destined for the load but 100 joules are heading
toward the load. Remember to get 50 watts into the load, you
must hit the load with 100 watts. 100 watts for one second is
100 joules, not 50.

> and 50 is in the path to the
> circulator for a total of 100 Joules stored within the one second long
> transmission line.

Your math or model or both are faulty. The forward power must
be 100 watts to get 50 into the load. Therefore, the forward
wave energy in a one second feedline is 100 joules. The reflected
wave energy is half of that. Therefore, there's 150 joules in
the feedline.
--
73, Cecil http://www.qsl.net/w5dxp

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750. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 23:29:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8d1c1$1_1@spool9-west.superfeed.net>
Source record: 75316

Roy Lewallen wrote:
> Hm, I wasn't having any trouble analyzing the system without the 200 ohm
> line.

Yes, you were, Roy. That's why your results didn't agree with
mine AND the wave reflection model analysis AND the S-parameter
analysis AND the conservation of energy principle AND the
conservation of momentum principle.

Those RF waves are virtually identical to a laser beam in free
space. Where do you store the reflected energy when the reflected
wave is a light beam? An RF reflected wave *IS* a light beam, just
at a low frequency.

> Why do you have to make the system more complex in order to apply
> your theory?

Why are you afraid of using the correct model in order to
achieve correct results? DISTRIBUTED NETWORK THEORY IS SIMPLY
MORE COMPLEX THAN LUMPED CIRCUIT THEORY AND FOR GOOD REASON. Your
lumped circuit theory will NOT solve distributed network problems.
You have already proved that more than once in the past.

> When I get snowed or when the discussion deviates from the point
> in question, I do tend to not read the rest.

How do you give yourself permission to assert that your adversary
is speaking gobbledygook when you have deliberately not read his
postings?

> Because the stored energy has nothing to do
> with what happens to the waves of bouncing average power in steady
> state, I did ignore your details about it.

This is your false premise in action. The "waves of bouncing
energy" exist precisely because of the stored energy. The
SWR circle impedance transformation depends upon those
"bounding waves". Take away the "bouncing waves" and the
feedline is incapable of transforming impedances.

> No bouncing waves of average power are required;

It logically directly follows that transmission lines are
incapable of transforming impedances and all transmission
lines are therefore matched. Reminds me of your point-sized
mobil loading coils. :-)

The wave energy emerges from the source traveling at the speed of
light. A principle of physics says the momentum in that generated
wave must be conserved. Exactly where does the momentum go when
you put the brakes on the wave energy and store it in your magic
transmission line? Where do you hide the wave momentum?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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751. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 23:47:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ahl8giinp9oc5@corp.supernews.com>
Source record: 75317

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Hm, I wasn't having any trouble analyzing the system without the 200
>> ohm line.
>
>
> Yes, you were, Roy. That's why your results didn't agree with
> mine AND the wave reflection model analysis AND the S-parameter
> analysis AND the conservation of energy principle AND the
> conservation of momentum principle.

Please tell me which of the numbers I posted disagree with yours, and which numbers you got. Once again, mine are:

Power from the source = 40 watts
Power dissipated in the source resistor = 8 watts
Power dissipated in the load resistor = 32 watts
Line SWR = 4:1
Line "Forward power" = 50 watts
Line "Reverse power" = 18 watts

Those are the only results I posted. What results did you get which are different?

Cecil's results:

Power from the source =
Power dissipated in the source resistor =
Power dissipated in the load resistor =
Line SWR =
Line "Forward power" =
Line "Reverse power" =

Roy Lewallen, W7EL

752. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-09 23:50:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ahle93jr4b2aa@corp.supernews.com>
Source record: 75318

I see that you are convinced that you've explained where the bouncing
waves of average power go and what they do.

Did anyone understand it? If so, would someone else please try to
explain it to me? Where does that 18 watts of "reverse power" go, and why?

Roy Lewallen, W7EL

Cecil Moore wrote:

[More generalizations with no numbers]

753. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 00:02:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JM4qe.255$Ss6.10987618@news.sisna.com>
Source record: 75319

I ran an antron I picked up at the dump here on 10 meters (guy beside me was throwing it away--just couldn't let him do that <grin>)... just recently, someone thought so much of it--they stole it off the tower!!! Used it on cb here too, two major interstates here and lots of truckers...

I replaced it with a 1/2 wave length of thinwall conduit and stainless whip for a ~16 foot length--it is fed with a gamma match and works better than the antron ever did... not as good as the antron on the chicken band though...

Warmest regards,
John

"Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message news:gZ2qe.1611$eM6.786@newsread3.news.atl.earthlink.net...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:bnJoe.44$ZT4.4723761@news.sisna.com...
>> Isn't the antron a very similar antenna--if not the same ant marketed
>> under another name?
>>
>> John
>>
>> "Buck" <iam@this.site> wrote in message
>> news:8el6a1t8pe788lom0cijoesenn893ip1j1@4ax.com...
>>> Does anyone know where I can find the instructions or manual for a
>>> Solarcon A-99 antenna? I recently acquired one and would like to
>>> know
>>> more.
>>>
>>> Thank you
>>>
>>>
>>> --
>>> 73 for now
>>> Buck
>>> N4PGW
>>
>>
> Some folks say to cut the vertical element to make for a better
> resonance on ten meters. Don't do that. Leave it as is.
>
> About all the three radials on the bottom due is possible decouple the
> feedline a bit. It will work fine with or without.

>
> Adjust the two rings almost all the way out and it should hit fine on
> ten meters. The antenna works on 15 also with about a 1.5 to 1. I
> never tried it on 12. I doubt it will do much below 15 meters.
>
> Dan/W4NTI
>
>

754. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 00:13:02 UTC
From: rbutler@napavalley.edu
Message-ID: <NX4qe.18$W4.8124@okeanos.csu.net>
Source record: 75320

No problems with the gear. Someone in sci.engr.television.broadcast nailed it on the first try. There's a 99FM xmitter a couple miles to the SE of me, lower in elevation, right in the path of all the other stations - & right smack in the middle of the FM band. Pointing the yagi in the exact opposite direction yields the best results for all other stations.

I'm still looking for some vertical omni antenna designs. Sorry for any duplicate posts, my hotmail account isn't very reliable.

-Bob
"Mark" <makolber@yahoo.com> wrote in message
news:1118343394.708147.102180@g47g2000cwa.googlegroups.com...
>
>
> Richard Clark wrote:
>> On Thu, 09 Jun 2005 10:50:11 -0700, Richard Clark <kb7qhc@comcast.net>
>> wrote:
>>
>> >Get an over the air amplifier rather than a line amplifier. If
>> >there's a separate line for the FM, from the antenna, get a mast
>> >mounted, line powered amplifier.
>>
>> Hi Bob,
>>
>> I noticed I used the word "line" in two senses here that may confuse.
>> The first actually means a line distribution amplifier. This is
>> usually used to augment a homes cable load of too many TV sets. The
>> other sense is a transmission line powered amplifier mounted on the
>> mast just beneath the antenna. Power into the transmission line and
>> up to the amplifier is applied through a special unit down near the
>> receiver which handles keeping the DC separate from the RF.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>
>
> Try orienting your Yagi with the elements vertical like the car antenna
> is.
>
> Also try another receiver.
>
> If you car radio picks up the stations in front of your house, you
> should be able to get them with your receiver. If not, your

> receiver, ant cable or ant are broke.
>
>
>
> Mark
>

755. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 00:37:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8ancqfjt1@news.service.uci.edu>
Source record: 75321

Roy Lewallen wrote:

> I see that you are convinced that you've explained where the bouncing
> waves of average power go and what they do.
>
> Did anyone understand it? If so, would someone else please try to
> explain it to me? Where does that 18 watts of "reverse power" go, and why?

Wouldn't it go to the circulator load which must always be placed at the source in order to clearly illustrate what happens when a circulator isn't in place at the source?

ac6xg

756. 900Mhz Antenna improvement

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 01:14:14 UTC
From: letters@softhome.net
Message-ID: <1118366054.430915.286270@o13g2000cwo.googlegroups.com>
Source record: 75322
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.radio.pirate

Hello. I currently use a WSP255RS RCA 900Mhz transmitter

http://tinyurl.com/a6y5e

to send MP3s to a Sony Spiar Receiver.

http://tinyurl.com/8ayyg

The range of the RCA is 300'. I would like to know
if there is an easy way to slightly increase the range of transmission.

Is there a 900Mhz antenna amp or kit available to maximize range?

Would desoldering the flimpsy antenna and putting a thicker/longer
antenna increase range?

How about making a better antenna? Something like
http://www.shed.com/tutor/mr26ant.html.

Any ideas would be appreciated.

757. Re: Why coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 01:17:00 UTC
From: "deneb@bobdbob.com" <deneb@bobdbob.com>
Message-ID: <1118366220.877147.237570@z14g2000cwz.googlegroups.com>
Source record: 75323

I second Tam's answer, having suffered through undergrad EM fields.

758. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 01:20:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ahqnedssfs883@corp.supernews.com>
Source record: 75324

Jim Kelley wrote:
> Roy Lewallen wrote:
>
>> I see that you are convinced that you've explained where the bouncing
>> waves of average power go and what they do.
>>
>> Did anyone understand it? If so, would someone else please try to
>> explain it to me? Where does that 18 watts of "reverse power" go, and
>> why?
>
>
> Wouldn't it go to the circulator load which must always be placed at the
> source in order to clearly illustrate what happens when a circulator
> isn't in place at the source?
>
> ac6xg

Sorry, I was asking about the simple example I posted (which doesn't have a circulator), not the problem posted by Cecil.

How does placing a circulator at the source illustrate what happens when it isn't in place? Isn't it possible to explain what happens to the "reverse power" without a circulator? If not, why not?

Roy Lewallen, W7EL

759. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 01:39:42 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1118367582.304873.46680@z14g2000cwz.googlegroups.com>
Source record: 75425

Thanks for the advise Brian. I'll keep that in mind when I get around
to setting my new shack up.
73,
Rob Brown
KB8WWS

760. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 01:46:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8f1d1$1_1@spool9-west.superfeed.net>
Source record: 75426

Roy Lewallen wrote:
> Please tell me which of the numbers I posted disagree with yours, and
> which numbers you got. Once again, mine are:

It's not your numbers, Roy, it's your premises that violate
the conservation of momentum principle among other principles
of physics. RF waves possesss momentum and that momentum MUST
be preserved. Your premises simply violate the conservation
of momentum principle. When you assert that the reflected
waves possess no energy and it is stored in some magic place
at sub-light speeds, you are in violation of the principles
of physics.

You can resolve all of this by telling us where the energy
is stored, besides in reflected waves, when we are dealing with
light in free space and no transmission line because exactly
the same thing happens with EM light waves as happens with
EM RF waves.
--
73, Cecil http://www.qsl.net/w5dxp

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761. Re: 900Mhz Antenna improvement

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 01:46:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fdrha1dpuv2jao0mej9qmd966gd7vsmkde@4ax.com>
Source record: 75427
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.radio.pirate

On 9 Jun 2005 18:14:14 -0700, letters@softhome.net wrote:

>Hello. I currently use a WSP255RS RCA 900Mhz transmitter
>http://tinyurl.com/a6y5e

Hi,

Yes, cute.

>to send MP3s to a Sony Spiar Receiver.
>http://tinyurl.com/8ayyg

Yes, that's cute too.

>The range of the RCA is 300'.

Rather pretty good if you already get this (instead of simply being an advertising claim).

>I would like to know
>if there is an easy way to slightly increase the range of transmission.

Hmmm, yes. But there are reasons not to. "Slightly" falls slightly outside of good specification. Please state specifically what you need.

>Is there a 900Mhz antenna amp or kit available to maximize range?

Undoubtedly, just like the availability of porn, you can buy almost anything. Is it commercial and could you get it at Circuit City or Radio Shack? - afraid not. It has to do with that law thingy, and the FCC (black market answers most of this).

>Would desoldering the flimpsy antenna and putting a thicker/longer
>antenna increase range?

Depends on antenna design, which could mean thicker/longer wire, but thicker/longer wire is not the answer - it depends on antenna design (probably why you came here).

>How about making a better antenna? Something like
>http://www.shed.com/tutor/mr26ant.html.

Where the other posts were cute, this is gross. Now, that is not to mean like vulgar - simply too, too big.

Look at the antennas in the first two links, and compare to this last one. Even if you made it the right size (and it is in fact the wrong

size); then it wouldn't really bring anything to the table. It does answer the agenda of antenna design, but it is not an example of what you describe wanting.

A simple solution for "slightly" more range is to build two corner reflectors (google search keywords) at each end. Tin foil on cardboard conception models can answer many questions. Toss in an additional keyword, 900MHz, and you will probably find enough to work with.

73's
Richard Clark, KB7QHC

762. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:07:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8aslj$jd3$1@news.service.uci.edu>
Source record: 75429

Roy Lewallen wrote:
> Jim Kelley wrote:
>
>> Roy Lewallen wrote:
>>
>>> I see that you are convinced that you've explained where the bouncing
>>> waves of average power go and what they do.
>>>
>>> Did anyone understand it? If so, would someone else please try to
>>> explain it to me? Where does that 18 watts of "reverse power" go, and
>>> why?
>>
>> Wouldn't it go to the circulator load which must always be placed at
>> the source in order to clearly illustrate what happens when a
>> circulator isn't in place at the source?
>>
>> ac6xg
>
>
> Sorry, I was asking about the simple example I posted (which doesn't
> have a circulator), not the problem posted by Cecil.

It was a tongue-in-cheek reply, Roy. These problems always seem to end up with a circulator in them at some point - clearly illustrating what happens under entirely different circumstances. :-)

73, Jim AC6XG

763. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:09:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8f735$1_1@spool9-west.superfeed.net>
Source record: 75428

Roy Lewallen wrote:
> Did anyone understand it? If so, would someone else please try to
> explain it to me? Where does that 18 watts of "reverse power" go, and why?

Bob Lay, w9dmk, could explain it but he's off on a camping trip.
I think the QEX editors can now explain it also. 18 watts is
rejected by the mismatched load. It was part of a forward wave
that contained energy and momentum. That energy and momentum
MUST be conserved according to the laws of physics. The reflected
wave heads back toward the source at the speed of light and part
is re-reflected as Pref2*rho^2. The remaining
Pref(1-rho^2) part engages with Pfor1*rho^2 in an equal
magnitude/opposite phase wave cancellation as explained by Walter
Maxwell on page 23-9 of "Reflections II". Since energy and momentum
cannot be cancelled, the two cancelled waves conserve energy and
momentum by heading back toward the load at the speed of light as
a re-reflection of energy which joins the forward wave energy.
--
73, Cecil http://www.qsl.net/w5dxp

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764. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:19:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8f9b8$1_1@spool9-west.superfeed.net>
Source record: 75430

Jim Kelley wrote:

> Roy Lewallen wrote:
>> Did anyone understand it? If so, would someone else please try to
>> explain it to me? Where does that 18 watts of "reverse power" go, and
>> why?
>
> Wouldn't it go to the circulator load which must always be placed at the
> source in order to clearly illustrate what happens when a circulator
> isn't in place at the source?

When a Z0-match is in place at the source, everything is also clear
since zero reflected energy reaches the source. The Z0-match case,
using an antenna tuner, is the most likely case to be encountered
in ham radio. 100% of the reflected energy and momentum is re-reflected
back toward the load, just as Walter Maxwell has been saying as long
as I can remember.

This stuff is not new. It is explained in "Fields and Waves ..."
by Ramo and Whinnery, copyright 1950's.
--
73, Cecil http://www.qsl.net/w5dxp

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765. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:32:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8fcae$1_1@spool9-west.superfeed.net>
Source record: 75431

Roy Lewallen wrote:
> Isn't it possible to explain what happens to the
> "reverse power" without a circulator?

It is certainly possible in a Z0-matched system where
zero reflected energy reaches the source and the source
is feeding its designed-for load. If no reflected energy
reaches the source, the source impedance doesn't matter,
except for efficiency, which doesn't affect the rest of
the system. A one ohm source providing 100v to a 50 ohm
load and a one megohm source providing 100v to a 50 ohm
load will result in identical external conditions when
driving a 50 ohm load.

The picture is not as clear when reflected current and
voltage are allowed to flow into the source. We usually
don't know what the source impedance is and that
certainly handicaps any analysis. Modern designers simply
resort to protection circuitry and don't worry about
the energy analysis. We do know that reflections reaching
the source are not benign.
--
73, Cecil http://www.qsl.net/w5dxp

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766. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:34:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <7tuha15m7vv7q3lv8qpub2dqlqonu8cvpn@4ax.com>
Source record: 75432

On 9 Jun 2005 02:03:51 -0700, "Rob Brown" <kb8wws@gmail.com> wrote:

>Hello All,
>I've justed moved into a new home and the XYL isn't crazy about my
>plans to build my "dream tower" just yet. I was wondering how much
>weight a push up telescopic mast such as the Rohn 50 foot guyed unit
>could safely carry. Specifically I want to mount my MFJ 80-2 meter
>vertical, which weighs in at 20 pounds, and an 80 meter dipole on a
>side arm mount. Any thoughts from the group that meight prove helpfull
>are welcome.
>Thanks and 73,
>Rob Brown
>KB8WWS

Hi Rob,

Gotta' ask 'ya. Didn't you tell your bride-to-be that you were a ham, and might need an antenna, before you asked her to marry you? Something like a pre-nup?
Walt, W2DU

767. Re: 900Mhz Antenna improvement

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:34:13 UTC
From: Ptaylor <Ptaylor@nospam.qwest.net>
Message-ID: <C_6qe.129$xu2.18862@news.uswest.net>
Source record: 75433
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.radio.pirate

Richard Clark wrote:

> On 9 Jun 2005 18:14:14 -0700, letters@softhome.net wrote:
>
>
>>Hello. I currently use a WSP255RS RCA 900Mhz transmitter
>>http://tinyurl.com/a6y5e
>
>
> Hi,
>
> Yes, cute.
>
>
>>to send MP3s to a Sony Spiar Receiver.
>>http://tinyurl.com/8ayyg
>
>
> Yes, that's cute too.
>
>
>>The range of the RCA is 300'.
>
>
> Rather pretty good if you already get this (instead of simply being an
> advertising claim).
>
>
>>I would like to know
>>if there is an easy way to slightly increase the range of transmission.
>
>
> Hmmm, yes. But there are reasons not to. "Slightly" falls slightly
> outside of good specification. Please state specifically what you
> need.
>
>
>>Is there a 900Mhz antenna amp or kit available to maximize range?
>
>
> Undoubtedly, just like the availability of porn, you can buy almost
> anything. Is it commercial and could you get it at Circuit City or
> Radio Shack? - afraid not. It has to do with that law thingy, and the

> FCC (black market answers most of this).
>

Perhaps something like this little antenna:
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=LPY915

Plenty of "illicit/illegal" stuff is available,ya just gotta know where
to look,and of course,many times it also depends on how you use such items.
Adding an antenna will probably violate part-15,but I doubt you'll get
any "heat" from doing it.

>
>>Would desoldering the flimpsy antenna and putting a thicker/longer
>>antenna increase range?
>
>
> Depends on antenna design, which could mean thicker/longer wire, but
> thicker/longer wire is not the answer - it depends on antenna design
> (probably why you came here).
>
>
>>How about making a better antenna? Something like
>>http://www.shed.com/tutor/mr26ant.html.
>
>
> Where the other posts were cute, this is gross. Now, that is not to
> mean like vulgar - simply too, too big.
>
> Look at the antennas in the first two links, and compare to this last
> one. Even if you made it the right size (and it is in fact the wrong
> size); then it wouldn't really bring anything to the table. It does
> answer the agenda of antenna design, but it is not an example of what
> you describe wanting.
>
> A simple solution for "slightly" more range is to build two corner
> reflectors (google search keywords) at each end. Tin foil on
> cardboard conception models can answer many questions. Toss in an
> additional keyword, 900MHz, and you will probably find enough to work
> with.
>
> 73's
> Richard Clark, KB7QHC

768. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 02:40:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a8fe87$1_2@spool9-west.superfeed.net>
Source record: 75434

Jim Kelley wrote:
> It was a tongue-in-cheek reply, Roy. These problems always seem to end
> up with a circulator in them at some point - clearly illustrating what
> happens under entirely different circumstances. :-)

The circulator, lossless feedlines of unreasonable length,
Time Domain Reflectometers, TV ghosting, etc. are all tools
for illustration purposes. However, a Z0-matched system is
an ordinary configuration in ham radio and is easy to analyze
since no reflected energy is allowed to reach the source. The
conservation of energy and momentum rules dictate where the
energy must go in such a case. We can debate why the reflected
energy is 100% re-reflected but there is no question that it
is 100% re-reflected because none reaches the source and
there are only two directions in a transmission line.
--
73, Cecil http://www.qsl.net/w5dxp

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769. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 03:24:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ai1vg2c3soq42@corp.supernews.com>
Source record: 75435

I've explained how I calculated how much energy is stored in the transmission line. The movement of energy within the line is complex; in the abbreviated analysis I've had time to do so far, it sloshes back and forth in regions within the line. It does not travel in waves of average power, bouncing back and forth, and believing so isn't necessary in order comply with energy conservation. Your view of power and energy is oversimplified, and it fails when you're pressed to explain what happens at the interface between the line and the outside world.

Momentum is conserved in mechanical elastic collisions, but not in inelastic ones, e.g., when energy is being extracted. I wouldn't begin to try to apply this to a transmission line, but I see it doesn't bother you. I understand and believe the fundamental principles of physics and thermodynamics -- I'm just careful not to misapply them.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Please tell me which of the numbers I posted disagree with yours, and
>> which numbers you got. Once again, mine are:
>
>
> It's not your numbers, Roy, it's your premises that violate
> the conservation of momentum principle among other principles
> of physics. RF waves possesss momentum and that momentum MUST
> be preserved. Your premises simply violate the conservation
> of momentum principle. When you assert that the reflected
> waves possess no energy and it is stored in some magic place
> at sub-light speeds, you are in violation of the principles
> of physics.
>
> You can resolve all of this by telling us where the energy
> is stored, besides in reflected waves, when we are dealing with
> light in free space and no transmission line because exactly
> the same thing happens with EM light waves as happens with
> EM RF waves.

770. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 03:32:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ai2ec42q61p1d@corp.supernews.com>
Source record: 75436

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Did anyone understand it? If so, would someone else please try to
>> explain it to me? Where does that 18 watts of "reverse power" go, and
>> why?
>
>
> Bob Lay, w9dmk, could explain it but he's off on a camping trip.
> I think the QEX editors can now explain it also. 18 watts is
> rejected by the mismatched load. It was part of a forward wave
> that contained energy and momentum. That energy and momentum
> MUST be conserved according to the laws of physics. The reflected
> wave heads back toward the source at the speed of light and part
> is re-reflected as Pref2*rho^2.

rho at the source is zero; the source matches the transmission line Z0. So the "part" which is re-reflected is zero, by your calculations.

The remaining
> Pref(1-rho^2) part

(which is all of it, since none was re-reflected)

>engages with Pfor1*rho^2 in an equal
> magnitude/opposite phase wave cancellation as explained by Walter
> Maxwell on page 23-9 of "Reflections II".

That part of Walt's text is talking about voltage and current waves. I'm familiar, thanks, with how they interact. You're the one talking about waves of average power -- since none of the reverse power wave is re-reflected, what happens to it? Where does the power go? Out the source resistor? I believe you said that 11.52 watts of it did. What happened to the rest?

Since energy and momentum
> cannot be cancelled, the two cancelled waves conserve energy and
> momentum by heading back toward the load at the speed of light as
> a re-reflection of energy which joins the forward wave energy.

What two waves head back toward the load? None of the alleged reverse power wave is reflected, by your own calculation. Where did it go? What's the other "cancelled wave" and where did it come from? What's its magnitude?

Roy Lewallen, W7EL

771. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 03:36:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ai2mrh9l7sq21@corp.supernews.com>
Source record: 75437

Jim Kelley wrote:
>
> It was a tongue-in-cheek reply, Roy. These problems always seem to end
> up with a circulator in them at some point - clearly illustrating what
> happens under entirely different circumstances. :-)

Thanks for the explanation. When Cecil has difficulty explaining a circuit, he comes up with one which he can explain and tries to deflect the discussion to it. This happens over and over and over -- it's really a pain to try to keep steering the discussion back to the original circuit.

That leaves us with no one who claims to understand Cecil's "explanation" of my simple circuit. Except, I guess, one guy who's on vacation and some folks who don't read this newsgroup.

Roy Lewallen, W7EL

772. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 03:43:50 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <vj2ia11trhep2mt6dgnj2s5crg5n2m7k49@4ax.com>
Source record: 75438

On Thu, 09 Jun 2005 22:34:04 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>On 9 Jun 2005 02:03:51 -0700, "Rob Brown" <kb8wws@gmail.com> wrote:
>
>>Hello All,
>>I've justed moved into a new home and the XYL isn't crazy about my
>>plans to build my "dream tower" just yet. I was wondering how much
>>weight a push up telescopic mast such as the Rohn 50 foot guyed unit
>>could safely carry. Specifically I want to mount my MFJ 80-2 meter
>>vertical, which weighs in at 20 pounds, and an 80 meter dipole on a
>>side arm mount. Any thoughts from the group that meight prove helpfull
>>are welcome.
>>Thanks and 73,
>>Rob Brown
>>KB8WWS
>
>Hi Rob,
>
>Gotta' ask 'ya. Didn't you tell your bride-to-be that you were a ham, and might
>need an antenna, before you asked her to marry you? Something like a pre-nup?
>Walt, W2DU

I've told all of my wives that I was a ham and they better get used to
it. My current (and permanent) wife and I spent two years shopping
for houses on acreage without deed restrictions before we bought here.
She was fine with that. Put up a 60' motorized free-standing crank-up
tower, trash that MFJ and put up a Christmas tree and enjoy yourself.
If this is an issue, find another wife :-)

773. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 03:48:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ai3cgkjaqn0ea@corp.supernews.com>
Source record: 75439

Cecil Moore wrote:
> Jim Kelley wrote:
>
>> Roy Lewallen wrote:
>>
>>> Did anyone understand it? If so, would someone else please try to
>>> explain it to me? Where does that 18 watts of "reverse power" go, and
>>> why?
>>
>>
>> Wouldn't it go to the circulator load which must always be placed at
>> the source in order to clearly illustrate what happens when a
>> circulator isn't in place at the source?
>
>
> When a Z0-match is in place at the source, everything is also clear
> since zero reflected energy reaches the source.

But there's a Z0 match at the source in my example. Simple wave mechanics show that the initial traveling voltage and current waves reflect from the load, return to the source, and don't reflect any further -- steady state is reached after a single round trip. That's a Z0 source match. No circulator is required.

> The Z0-match case,
> using an antenna tuner, is the most likely case to be encountered
> in ham radio. 100% of the reflected energy and momentum

Walt's book mentions momentum? Where?

is re-reflected
> back toward the load, just as Walter Maxwell has been saying as long
> as I can remember.

Hm. You said earlier that 11.52 watts of the reverse power wave reached the source. In a posting a short while ago you said that none of it is re-reflected (since rho at the source = 0), and now you say it all is.

Guess that covers just about any possibility -- no matter how things come out, you can say you gave the right answer. You might consider tossing out a couple more just in case.

> This stuff is not new. It is explained in "Fields and Waves ..."
> by Ramo and Whinnery, copyright 1950's.

Did they give three different answers to a simple question?

Roy Lewallen, W7EL

774. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 03:54:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ai3mvdonmkl3c@corp.supernews.com>
Source record: 75440

If you put the perfect voltage source and the source resistor into a box and label it "Source", you have a Source whose impedance perfectly matches the transmission line. It's a Z0-matched system.

The source impedance of my circuit is as simple as it can get. If you can't explain how it works, it reveals a deficiency of your theory; I can easily calculate the voltage, current, and power in any component at any moment of time. Without requiring bouncing waves of average power. Or a circulator.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Isn't it possible to explain what happens to the "reverse power"
>> without a circulator?
>
>
> It is certainly possible in a Z0-matched system where
> zero reflected energy reaches the source and the source
> is feeding its designed-for load. If no reflected energy
> reaches the source, the source impedance doesn't matter,
> except for efficiency, which doesn't affect the rest of
> the system. A one ohm source providing 100v to a 50 ohm
> load and a one megohm source providing 100v to a 50 ohm
> load will result in identical external conditions when
> driving a 50 ohm load.
>
> The picture is not as clear when reflected current and
> voltage are allowed to flow into the source. We usually
> don't know what the source impedance is and that
> certainly handicaps any analysis. Modern designers simply
> resort to protection circuitry and don't worry about
> the energy analysis. We do know that reflections reaching
> the source are not benign.

775. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 04:22:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a91680$1_1@spool9-west.superfeed.net>
Source record: 75441

Roy Lewallen wrote:
> I've explained how I calculated how much energy is stored in the
> transmission line. The movement of energy within the line is complex; in
> the abbreviated analysis I've had time to do so far, it sloshes back and
> forth in regions within the line.

From where to where at what speed? Sloshing sounds like a
violation of the conservation of momentum. What force changes
the direction of the slosh? How much efficiency is lost in
the energy required to change sloshing directions?

> It does not travel in waves of average
> power, bouncing back and forth, and believing so isn't necessary in
> order comply with energy conservation.

Nothing RF travels in waves of average power. Average power is
just our simplified shorthand way of dealing with it. The AC
voltage is equal to the RMS value at only two points in
the cycle. Sticking with instantaneous values for everything
AC would complicate things beyond belief.

The values of voltage in your chart were RMS (average) values.
You don't seem to have a problem dealing with RMS values of
voltages and currents. Why do you have a problem with average
power associated with those average RMS values of voltage and
current.

> Your view of power and energy is
> oversimplified, and it fails when you're pressed to explain what happens
> at the interface between the line and the outside world.

What is located at that interface? Anybody is pressed to explain
things when the source impedance is unknown and cannot be measured.

> Momentum is conserved in mechanical elastic collisions, but not in
> inelastic ones, e.g., when energy is being extracted. I wouldn't begin
> to try to apply this to a transmission line, but I see it doesn't bother
> you.

Hecht, in "Optics" certainly applies it to EM waves. RF EM waves
differ from light waves only in frequency. Conservation of
momentum is a cornerstone of EM light physics and is included
in the rules of relativity.
--
73, Cecil http://www.qsl.net/w5dxp

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776. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 04:24:24 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <wv8qe.75842$lQ3.48457@bignews5.bellsouth.net>
Source record: 75442

All take-off angles are correct. All takeoff angles are incorrect, too. You just need someone to hold all the other variables steady (like the height of the d layer, etc, the atmospheric conditions, the sunspots, and a few other variables----
Its a crapshoot. The right angle at noon may be wrong at sundown.

"Al Lorona" <al_lorona@agilent.com> wrote in message news:1118196774.758472@cswreg.cos.agilent.com...
> Hi, Everybody,
>
> How does one determine the correct antenna takeoff angle to communicate over
> a certain distance?
>
> I can't find any references anywhere that discuss this, taking into account
> all of the variables: height of ionosphere, frequency, etc.

777. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 05:13:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a92283$1_1@spool9-west.superfeed.net>
Source record: 75443

Roy Lewallen wrote:

> rho at the source is zero; the source matches the transmission line Z0.
> So the "part" which is re-reflected is zero, by your calculations.

Not my calculations. The measured SWR at the source terminals
is 4:1. rho = (SWR-1)/(SWR+1) = 3/5 = 0.6

> That part of Walt's text is talking about voltage and current waves. I'm
> familiar, thanks, with how they interact. You're the one talking about
> waves of average power

Walt's text talks about RMS (average) voltage and current. When
you multiply RMS voltage by RMS current, you get average power.
V+*I+ = forward power, V+/I+ = Z0, (PV+)=(E+)x(H+)
V-*I- = reflected power, V-/I- = Z0, (PV-)=(E-)x(H-)

> -- since none of the reverse power wave is
> re-reflected, what happens to it?

On the contrary, it is 100% re-reflected by wave cancellation,
the fourth thing that can cause 100% re-reflection. Optical
engineers understand that. Most RF engineers don't. Adding
the one wavelength of lossless 200 ohm feedline reveals the
wave cancellation mechanism.

> What two waves head back toward the load? None of the alleged reverse
> power wave is reflected, by your own calculation.

Not my calculation. All of the reverse power wave is reflected
by wave cancellation at the source terminals. No reflected power
is dissipated in the source resistor. Therefore, it is all
reflected back toward the load. The one wavelength of 200 ohm
lossless feedline reveals exactly what happens.
--
73, Cecil http://www.qsl.net/w5dxp

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778. Re: 900MHz Antenna improvement

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 05:57:36 UTC
From: biascomms <biascomms@blueyonder.co.uk>
Message-ID: <kZ9qe.48132$G8.37164@text.news.blueyonder.co.uk>
Source record: 75444
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.radio.pirate

letters@softhome.net wrote:

> Hello. I currently use a WSP255RS RCA 900MHz transmitter
>
> http://tinyurl.com/a6y5e
>
> to send MP3s to a Sony Spiar Receiver.
>
> http://tinyurl.com/8ayyg
>
> The range of the RCA is 300'.

Perhaps you mean "the quoted range is 300'". This will an absolute maximum in an open field, /not/ through the walls of a house.

> I would like to know
> if there is an easy way to slightly increase the range of transmission.
>
> Is there a 900MHz antenna amp or kit available to maximize range?

Forget amplifying it. The cheap (and pretty nasty) transmitter circuitry won't provide a /clean/ enough signal for amplification, and 900 MHz electronics isn't trivial - layout is /really/ crucial.

> Would desoldering the flimsy antenna and putting a thicker/longer
> antenna increase range?

Possibly. Try it and see.

> How about making a better antenna?

Possibly. Do a Google search for a suitable 900 MHz home brew antenna - perhaps a corner reflector type.

> Something like
> http://www.shed.com/tutor/mr26ant.html.

Definitely not. That's truly hideous, on the wrong frequency, and probably doesn't work at all - he'd be better off with a random length of wire! The "FM balun" he suggests would be seriously lossy at 900 MHz, and the dimensions are wrong.

Bob

--
Everything gets easier with practice, except getting up in the morning!

779. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 06:07:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a92f03$1_1@spool9-west.superfeed.net>
Source record: 75445

Roy Lewallen wrote:
> But there's a Z0 match at the source in my example. Simple wave
> mechanics show that the initial traveling voltage and current waves
> reflect from the load, return to the source, and don't reflect any
> further -- steady state is reached after a single round trip. That's a
> Z0 source match. No circulator is required.

You obviously don't understand a Z0-match, Roy. All the reflected
power is re-reflected back toward the load at a Z0-match. What you
have in your example is a Z0-match to 200 ohms. You can prove it
by observing that the reflections disappear on a piece of 200 ohm
feedline.

------200 ohm feedline---+---1/2WL 50 ohm feedline---200 ohm load

The SWR on the 50 ohm feedline is 4:1. The SWR on the 200 ohm
feedline is 1:1. That is a 200 ohm Z0-match and rho is 0.6

> Hm. You said earlier that 11.52 watts of the reverse power wave reached
> the source.

Reflected by wave cancellation *at* the source , certainly not
flowing back through the source. What I said is that the two 11.52
watt reflected wave components undergo wave cancellation that results
in 23.04 watts being re-reflected.

>In a posting a short while ago you said that none of it is
> re-reflected ...

Sorry, Roy, you know and I know that is a lie. Please
apologize and retract that false statement.
--
73, Cecil http://www.qsl.net/w5dxp

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780. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 06:07:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a92f09$1_1@spool9-west.superfeed.net>
Source record: 75446

Roy Lewallen wrote:
> If you put the perfect voltage source and the source resistor into a box
> and label it "Source", you have a Source whose impedance perfectly
> matches the transmission line. It's a Z0-matched system.

Sorry, Roy, a 50 ohm source driving a 200 ohm load is NOT a
Z0-matched system by any stretch of the imagination. From the
ARRL Antenna Book: "The Z0 mismatch (at the load) creates a
reflection having a magnitude of rho = (ZL-Z0)/(ZL+Z0)
causing a reflection loss rho^2 that is referred back along
the line to the generator. This in tern causes the generator to
see the same magnitude of Z0 mismatch at the line input."

This exactly describes your example which has a 50 ohm Z0
mismatch (and a 200 ohm Z0 match). The mismatch is easy to
see in the following:

50 ohm source--1WL 200 ohm line--+--1/2WL 50 ohm line--200 ohm load

Point '+' is a Z0-match to 200 ohms. A Z0-match to 50 ohms
doesn't exist anywhere.

> The source impedance of my circuit is as simple as it can get. If you
> can't explain how it works, it reveals a deficiency of your theory;

You assume I don't know how it works because you don't even know
what a Z0-match is???????? How very typical of you.
--
73, Cecil http://www.qsl.net/w5dxp

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781. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 06:27:59 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <xPvmO$BvLTqCFAFI@ifwtech.co.uk>
Source record: 75447

Jim Kelley wrote:
>>> Wouldn't it go to the circulator load which must always be placed at
>>>the source in order to clearly illustrate what happens when a
>>>circulator isn't in place at the source?
>>>
>>> ac6xg
>> Sorry, I was asking about the simple example I posted (which
>>doesn't have a circulator), not the problem posted by Cecil.
>
>It was a tongue-in-cheek reply, Roy. These problems always seem to end
>up with a circulator in them at some point - clearly illustrating what
>happens under entirely different circumstances. :-)
>

Cecil imagines a circulator is a device that separates forward and
reflected waves of average power, because that is what Cecil's theory
says they must do.

In other words, Cecil's circulator is a device that takes a perfectly
straight-forward argument... and makes it circular.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

782. Re: 900Mhz Antenna improvement

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 06:36:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nqcia197vldkelqgk45ksmfn0kefal875u@4ax.com>
Source record: 75448
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.radio.pirate

On Thu, 09 Jun 2005 19:34:13 -0700, Ptaylor <Ptaylor@nospam.qwest.net>
wrote:

>Perhaps something like this little antenna:
>http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=LPY915

Hi OM,

OK, another cute link. However, $30 and postage/handling does nothing
to add signal that wasn't already available from the existing design.
On the other hand, if you or your folks found comfort, years back, in
buying a pet rock, this could be your antenna.

73's
Richard Clark, KB7QHC

783. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 07:03:10 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ujdia1tb8cjtgjmfp4gnps2spm3iqi3j8r@4ax.com>
Source record: 75449

On Thu, 09 Jun 2005 20:43:50 -0700, Wes Stewart <n7ws_@*yahoo.com> wrote:

>On Thu, 09 Jun 2005 22:34:04 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>On 9 Jun 2005 02:03:51 -0700, "Rob Brown" <kb8wws@gmail.com> wrote:
>>
>>>Hello All,
>>>I've justed moved into a new home and the XYL isn't crazy about my
>>>plans to build my "dream tower" just yet. I was wondering how much
>>>weight a push up telescopic mast such as the Rohn 50 foot guyed unit
>>>could safely carry. Specifically I want to mount my MFJ 80-2 meter
>>>vertical, which weighs in at 20 pounds, and an 80 meter dipole on a
>>>side arm mount. Any thoughts from the group that meight prove helpfull
>>>are welcome.
>>>Thanks and 73,
>>>Rob Brown
>>>KB8WWS
>>
>>Hi Rob,
>>
>>Gotta' ask 'ya. Didn't you tell your bride-to-be that you were a ham, and might
>>need an antenna, before you asked her to marry you? Something like a pre-nup?
>>Walt, W2DU
>
>I've told all of my wives that I was a ham and they better get used to
>it. My current (and permanent) wife and I spent two years shopping
>for houses on acreage without deed restrictions before we bought here.
>She was fine with that. Put up a 60' motorized free-standing crank-up
>tower, trash that MFJ and put up a Christmas tree and enjoy yourself.
>If this is an issue, find another wife :-)

Hooray for Linda, Wes, she's got her head on straight. My first wife, Harriette was one of George Sterling's assistants as Chief Eng of the FCC before I met her in 1940 at the FCC Allegan Primary Monitoring Station, where she worked after transferring from the Washington office. So she knew hams long before she and I met. I had been a ham for seven years before we met, so she knew what she was getting into and she encouraged me in every ham activity I wanted to get into.

Unknowing to us monitoring guys, she knew the code. We all had code oscillators at our work station, and we often made remarks across the room about her via cw. Little did we know that she copied all our remarks, and had some pretty sharp comebacks for us. It's not only due to my being a ham that all four of my kids are licensed, as well as my son-in-law. Harriette had a lot to do with it. My oldest son Bill, W2WM, is already retired, and has been licensed for 38 years.

Son Rick, WB4GNR, a computer engineer with Agilent, has also been licensed 38 years. Daughter Sue and her husband have been licensed for 25, but son John, K4JRM, has only been licensed for a little over a year.

I lost Harriette to emphysema in 1985, but in 1996 I found my first love, my high school sweetheart, after neither of us knew where each other was for 61 years. We married on the island of Anguilla in 1997, living in my home in DeLand, FL in winter and in her home in Mt. Pleasant MI in summer. Jean is an emeritus professor of speech at Central Michigan U, and also supports my hamming emphatically. She did all the proof reading of Reflections 2 prior to publication. Enough gab for now,

Walt, W2DU

784. Determining SWR and Transmission Line Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 07:33:21 UTC
From: Gary
Message-ID: <rqfia19kr6s5ttt1ms22uid30utfp7vvg9@4ax.com>
Source record: 75450

If, just for example I'm loading 20 meters into a 40 meter dipole what's the formula for determining the resultant SWR ? And then what's the formula for determining what my losses would be between say feeding the 40 meter dipole with 100' of RG-58 vs 100' of 450 ohm ladder line on 20 meters. Of course the 450 ohm twinlead would screw up the (likely) close match between the dipole and the RG-58 on 40 meters. Maybe this requires some kind of antenna modeling program ?

Thanks in advance.

Gary

785. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 09:27:25 UTC
From: Dori A Schmetterling <ng@nospam.co.uk>
Message-ID: <42a95d02$0$294$cc9e4d1f@news-text.dial.pipex.com>
Source record: 75451
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

How is that possible?

A bit of the ol' Resurrection, maybe?

:-)
DAS
--
For direct contact replace nospam with schmetterling

"John Smith" <assemblywizard@gmail.com> wrote in message
news:3UMoe.68$6D2.6898782@news.sisna.com...
[...]
I certainly will be mortally wounded--but trust me--I'll
> get over it...

786. Re: Programming Language .... Ping Reg

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 09:38:53 UTC
From: kashe@sonic.net
Message-ID: <idnia19dndq8r2il78a6k4mm3rfgugpmqm@4ax.com>
Source record: 75452

On Tue, 07 Jun 2005 19:45:14 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Wed, 08 Jun 2005 01:25:33 GMT, kashe@sonic.net wrote:
>>>As for software, any notion of time is utterly ridiculous. Any
>>>operation that successfully performed once will ALWAYS perform
>>>identically every time again.
>> How many operations are fed the identical, valid input every
>>time?
>
>This is at least four questions
>1. How many operations;
>at least two to satisfy the statement responded to
>2. identical input;
>self validating, however this constraint is unnecessary
>3. valid input;
>what does it matter? the response is identical
>4. every time
>time is an illusion, a computer only knows now. This is why it ALWAYS
>does the same thing. If it didn't, would you use the ATM machine?
>Would you fly on a 757? Would you go on a green light?
>
>If it didn't, would you use that voting machine again? What if they
>said it was good enough and you had no choice and no paper trail?
>
>.....

Actually my point was that an operation that works correctly a
for years can still give you problems if fed an invalid input. I agree
that, for a given input, it will indeed perform identically.

> Most of those same reports offered the prospect of a
>Supreme Court challenge, instead these ladies faded onto their silk
>moire chaise lounges.

Thanks much. I would appreciate much more writing of this
quality on usenet.

787. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 09:47:05 UTC
From: kashe@sonic.net
Message-ID: <l0oia1tih231qieuf0oramv532lu4us0ju@4ax.com>
Source record: 75453
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Tue, 7 Jun 2005 18:07:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>John, may I pass on a bit of advice my Daddy gave me as a young lad. When
>arguing with a jackass, make sure he is not doing the same thing.
>
>You have allowed yourself to fall in to the teaching a pig to sing mode.
>
>Exercising Godwins law, the guy is a Nazi.

Have you forgotten the corollary which states that invocation
of Nazism expressly for the purpose of terminating the argument is
invalid and does not terminate debate?

Similarly, just because it rains every time you wash your car,
you cannot invoke a rainy day by washing your car for that purpose.

Contrariwise, it can be proven that, while the phone may ring
every time you go into the bathroom, you can indeed force the phone to
ring at will just by entering the bathroom. Tubs work the same way.

788. J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 11:14:50 UTC
From: ml <m@di.net>
Message-ID: <m-6404B6.07144510062005@news.verizon.net>
Source record: 75454

I was wondering 2 things:

While on hf i have a current balun, thyre pretty common to help elmin
any bad signals on my coax shield

is their such a thing for uhf/vhf?? if so who specifically sells them

second

I have a arrow 2/440 j pole works great---- it dosn't have any radials
hanging off naturally, so since basically just the center conductor is
connected would you suspect my coax shield is 'part of the antenna'
radiating alot of stuff??

(course the shield does attach to the bottom mounting plate of the
antenna but i wasn't counting that

tnx

789. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 11:19:29 UTC
From: ml <m@di.net>
Message-ID: <m-4A461C.07192910062005@news.verizon.net>
Source record: 75455

In article <50efa11cah90usp072028opbjp1vtrl3oh@4ax.com>,
Wes Stewart <n7ws_@*yahoo.com> wrote:

> On Wed, 08 Jun 2005 17:57:21 -0000, dplatt@radagast.org (Dave Platt)
> wrote:
>
>
> >Similar issues are likely to exist in recent-model cars which have a
> >lot of fiberglass or other composite-plastic panels and structure.
>
> Back in the good old days, I was the proud owner of a 1956 Corvette,
> one of only 3467 built and along with the '57s, the prettiest ones
> ever buit. (damn I wish I had that car back). As are all Corvettes,
> it was fiberglass.

<<<<all corvettes were not fiberglass!

>
> The soft top was stored under a flip up hatch behind the seats and
> there were two toggle clamps that secured the rear of the top when it
> was up. These penetrated the hatch cover so that it was possible to
> snake a vertical whip through them. I used a 17" aluminum
> transcription disk (common in broadcast stations of the day) with the
> coating stripped off for a ground plane under the hatch.
>
> Best DX using a Heathkit "Twoer" was from the driveway of a friend in
> Tempe, AZ back to another friend in Tucson; about 100 miles.
>
> This wasn't long after QST magazine had breathlessly reported that the
> "difficult path" between Tucson and Phoenix had been bridged.

790. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 12:23:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a9871b$1_1@spool9-west.superfeed.net>
Source record: 75456

Ian White GM3SEK wrote:
> In other words, Cecil's circulator is a device that takes a perfectly
> straight-forward argument... and makes it circular.

Cecil's circulator is a device that gets hot when reflected
waves are present, proving that reflected waves possess
energy and power.

Cecil's TDR allows everything about a reflected pulse to
be known and measured.

Cecil's TV ghosting allows one to see the reflections with
one's own eyes.

Cecil's one foot long piece of 200 ohm feedline allows one
to observe the elimination of reflections thus proving a
200 ohm Z0-match where the one who offered the example
thought there was a 50 ohm Z0-match.

I'm a professional teacher who uses lots of visual aids.
They work well on open-minded people. But they do often
pi$$ off closed-minded people because they leave nothing
worth arguing about.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

791. Re: Correct Antenna Takeoff Angle?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 12:26:37 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1118406397.482691.199820@g43g2000cwa.googlegroups.com>
Source record: 75457

Cecil Moore schreef:
> Al Lorona wrote:
> > I can't find any references anywhere that discuss this, taking into account
> > all of the variables: height of ionosphere, frequency, etc.
>
> The ARRL Antenna Book has charts and graphs of such.

And, for as far as I know, recent versions of the ARRL antenna book
include the HFTA program, to analyze the effect of sloping/unregular
terrain.

Arie.

792. Re: Solarcon A-99 Antenna Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 12:36:47 UTC
From: Buck <iam@this.site>
Message-ID: <r70ja19m17qg0frtf7b503snp0ndvne6gg@4ax.com>
Source record: 75458

On Sun, 05 Jun 2005 15:46:17 -0400, Buck <iam@this.site> wrote:

>Does anyone know where I can find the instructions or manual for a
>Solarcon A-99 antenna? I recently acquired one and would like to know
>more.
>

First of all, Thank you to all who responded.

I looked up the references I could and read about the antenna. I
think I learned what I need to know about it.

I was given the antenna, so I have no cost involved and no loss here.

This is what I understand about the antenna at this time.

It would appear that the antenna manufacturer markets this antenna by
way of a hyped-up techno-babble description that may not even be
accurate, and exaggerated gain. The antenna is primarily a CB design,
but the matching network allows the antenna to be tuned so that it may
have acceptable SWR on 15-10 meters but probably not on 20 meters
without a tuner. With a tuner, the antenna will function on 20-10
meters. Hams with experience with this antenna find it to be lossy
compared to a common dipole, however, it will function as a vertical
without radials at whatever desired elevation.

My plans are to play with it enough to test it and either keep it as
just something I can use without a tuner or to give it away.

More comments are welcome.

Thank you all again.

Buck, N4PGW

--
73 for now
Buck
N4PGW

793. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 12:38:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a98a9a$1_1@spool9-west.superfeed.net>
Source record: 75459

Roy Lewallen wrote:
> If you put the perfect voltage source and the source resistor into a box
> and label it "Source", you have a Source whose impedance perfectly
> matches the transmission line. It's a Z0-matched system.

This is exactly like the ham who puts up a random length dipole,
feeds it through a 9:1 balun using 450 ohm ladder-line, and
declares that he has a Z0-match.

50 ohm
100v
source--+--1/2WL 50 ohm feedline--+--200 ohm load

Measuring the 50 ohm SWR at your source output yields 4:1.
Measuring the 200 ohm SWR at your source output yields 1:1.
It is *NOT* Z0-matched to the 50 ohms inside your source.

In a lossless system, a Z0-match to the source impedance
would imply a conjugate match and maximum power transfer.
Your example obviously does not transfer maximum power.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

794. Re: Determining SWR and Transmission Line Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 12:45:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <A8GdnZY1Ea7uFjTfRVn-ug@crocker.com>
Source record: 75460

to determine the swr you have to figure the impedance, which can vary depending on height, exact shape, etc... no single formula, you can model with a program of course, but its likely easier to measure it.

as for losses... 100' of rg-58 on 20m has a loss of about 1.5db when matched. raise that swr to 20:1 at the load and the loss goes up to 5db (using graphs in old arrl antenna book so the exact numbers may be off a bit, but who cares). so you might lose 1 s-unit if you try to use the 40m dipole on 20m, likely something less.

now, if you use a common twin lead and drop that 1.5 db to .5db, then raise the swr to 20:1 you still lose 3db. so for all the extra problems of getting twin lead in and out of a house, and messing up the 40m match, you save 2db.

"Gary" <grynwbry@@@@Yahoo.com> wrote in message news:rqfia19kr6s5ttt1ms22uid30utfp7vvg9@4ax.com...
> If, just for example I'm loading 20 meters into a 40 meter dipole
> what's the formula for determining the resultant SWR ? And then what's
> the formula for determining what my losses would be between say
> feeding the 40 meter dipole with 100' of RG-58 vs 100' of 450 ohm
> ladder line on 20 meters. Of course the 450 ohm twinlead would screw
> up the (likely) close match between the dipole and the RG-58 on 40
> meters. Maybe this requires some kind of antenna modeling program ?
>
> Thanks in advance.
>
> Gary

795. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 13:01:40 UTC
From: Dori A Schmetterling <ng@nospam.co.uk>
Message-ID: <42a98f42$0$297$cc9e4d1f@news-text.dial.pipex.com>
Source record: 75461
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

1) This is Quirk's Exception

http://en.wikipedia.org/wiki/Godwin's_law#Other_laws_and_corollaries

2) I note that Murphy's Law (car washing chapter) operates in your neck
of the woods, too.

DAS

For direct contact replace nospam with schmetterling

<kashe@sonic.net> wrote in message
news:l0oia1tih231qieuf0oramv532lu4us0ju@4ax.com...
[...]
>
> Have you forgotten the corollary which states that invocation
> of Nazism expressly for the purpose of terminating the argument is
> invalid and does not terminate debate?
>
> Similarly, just because it rains every time you wash your car,
> you cannot invoke a rainy day by washing your car for that purpose.
>
[...]

796. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 13:28:02 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42a995c1_1@newsfeed.slurp.net>
Source record: 75462

<rbutler@napavalley.edu> wrote
> There's a 99FM xmitter a couple miles to the SE of me, lower in elevation,
> right in the path of all the
> other stations - & right smack in the middle of the FM band. Pointing the
> yagi in the exact opposite direction yields the best results for all other
> stations.
>
> I'm still looking for some vertical omni antenna designs. Sorry for any
> duplicate posts, my hotmail account isn't very reliable.

Using an omni v-pol antenna for the receiver with the problem won't help much if the 99FM xmit antenna radiates v-pol as well as h-pol -- which is typical for FM stations.

Really fixing the problem will require changing your receiver to one with better selectivity. It is being de-sensitized by that local FM station.

An option would be to install a notch filter tuned for the local FM at the input to the problem receiver. It will attenuate that local signal (and others close to it in frequency, to some extent). A "5KFM" type notch filter from Microwave Filter Company may do the job, for about $25 as I recall. Here is a link: http://www.microwavefilter.com/

RF

797. Re: Determining SWR and Transmission Line Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 14:31:19 UTC
From: Gary
Message-ID: <pu8ja1l3mi93c4u2j4urglegur6tq5k3ng@4ax.com>
Source record: 75463

Ok Dave, thanks for the information :)

Regards.

Gary

On Fri, 10 Jun 2005 12:45:29 -0000, "Dave" <noone@nowhere.com> wrote:

>to determine the swr you have to figure the impedance, which can vary
>depending on height, exact shape, etc... no single formula, you can model
>with a program of course, but its likely easier to measure it.
>
>as for losses... 100' of rg-58 on 20m has a loss of about 1.5db when
>matched. raise that swr to 20:1 at the load and the loss goes up to 5db
>(using graphs in old arrl antenna book so the exact numbers may be off a
>bit, but who cares). so you might lose 1 s-unit if you try to use the 40m
>dipole on 20m, likely something less.
>
>now, if you use a common twin lead and drop that 1.5 db to .5db, then raise
>the swr to 20:1 you still lose 3db. so for all the extra problems of
>getting twin lead in and out of a house, and messing up the 40m match, you
>save 2db.
>
>"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>news:rqfia19kr6s5ttt1ms22uid30utfp7vvg9@4ax.com...
>> If, just for example I'm loading 20 meters into a 40 meter dipole
>> what's the formula for determining the resultant SWR ? And then what's
>> the formula for determining what my losses would be between say
>> feeding the 40 meter dipole with 100' of RG-58 vs 100' of 450 ohm
>> ladder line on 20 meters. Of course the 450 ohm twinlead would screw
>> up the (likely) close match between the dipole and the RG-58 on 40
>> meters. Maybe this requires some kind of antenna modeling program ?
>>
>> Thanks in advance.
>>
>> Gary
>

798. Re: Determining SWR and Transmission Line Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 14:55:24 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <wRhqe.58013$9A2.9272@edtnps89>
Source record: 75357

The nominal impedance of a 40 m dipole, at 30 ft above an average ground, is 4700 + j0. There may be some inductive or capacitive reactance present -- depending on the exact length of the antenna -- but it will not effect the transmission line losses significantly.

100 ft of RG 58 exhibits a total line loss of about 13 dB when terminated with the above impedance. i.e. 100 W in gives 5 W radiated.

For the above analysis I used NEC 2 for the antenna model, and ARRL's TLA for the transmission line loss.

Regards,

Frank

"Gary" <grynwbry@@@@Yahoo.com> wrote in message news:rqfia19kr6s5ttt1ms22uid30utfp7vvg9@4ax.com...
> If, just for example I'm loading 20 meters into a 40 meter dipole
> what's the formula for determining the resultant SWR ? And then what's
> the formula for determining what my losses would be between say
> feeding the 40 meter dipole with 100' of RG-58 vs 100' of 450 ohm
> ladder line on 20 meters. Of course the 450 ohm twinlead would screw
> up the (likely) close match between the dipole and the RG-58 on 40
> meters. Maybe this requires some kind of antenna modeling program ?
>
> Thanks in advance.
>
> Gary

799. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 15:02:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <nYhqe.23$DV7.814201@news.sisna.com>
Source record: 75464
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

... have you deeply meditated and contemplated your navel lately? Hey,
it couldn't hurt...

John

<kashe@sonic.net> wrote in message
news:l0oia1tih231qieuf0oramv532lu4us0ju@4ax.com...
> On Tue, 7 Jun 2005 18:07:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>>John, may I pass on a bit of advice my Daddy gave me as a young lad.
>>When
>>arguing with a jackass, make sure he is not doing the same thing.
>>
>>You have allowed yourself to fall in to the teaching a pig to sing
>>mode.
>>
>>Exercising Godwins law, the guy is a Nazi.
>
> Have you forgotten the corollary which states that invocation
> of Nazism expressly for the purpose of terminating the argument is
> invalid and does not terminate debate?
>
> Similarly, just because it rains every time you wash your car,
> you cannot invoke a rainy day by washing your car for that purpose.
>
> Contrariwise, it can be proven that, while the phone may ring
> every time you go into the bathroom, you can indeed force the phone to
> ring at will just by entering the bathroom. Tubs work the same way.

800. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 15:25:35 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e0a9$42a9b0f2$97d55d24$27448@ALLTEL.NET>
Source record: 75465
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Quarks exception is not recognized by my religion. I am a Seventh Day
Bhudist.

<kashe@sonic.net> wrote in message
news:l0oia1tih231qieuf0oramv532lu4us0ju@4ax.com...
> On Tue, 7 Jun 2005 18:07:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >John, may I pass on a bit of advice my Daddy gave me as a young lad. When
> >arguing with a jackass, make sure he is not doing the same thing.
> >
> >You have allowed yourself to fall in to the teaching a pig to sing mode.
> >
> >Exercising Godwins law, the guy is a Nazi.
>
> Have you forgotten the corollary which states that invocation
> of Nazism expressly for the purpose of terminating the argument is
> invalid and does not terminate debate?
>
> Similarly, just because it rains every time you wash your car,
> you cannot invoke a rainy day by washing your car for that purpose.
>
> Contrariwise, it can be proven that, while the phone may ring
> every time you go into the bathroom, you can indeed force the phone to
> ring at will just by entering the bathroom. Tubs work the same way.

801. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 15:43:20 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <uySxR8VYUbqCFAkT@ifwtech.co.uk>
Source record: 75466

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> In other words, Cecil's circulator is a device that takes a perfectly
>>straight-forward argument... and makes it circular.
>
>Cecil's circulator is a device that gets hot when reflected
>waves are present, proving that reflected waves possess
>energy and power.
>
>Cecil's TDR allows everything about a reflected pulse to
>be known and measured.
>
>Cecil's TV ghosting allows one to see the reflections with
>one's own eyes.
>

None of those observations proves the existence of "waves of energy and power". They can all be explained more simply and easily in terms of waves of voltage and/or current (or in circulators and waveguide, waves of E-field and/or H-field).

The world is still waiting for an explanation of the detailed internal workings of *any* of those devices, done entirely in terms of "waves of energy and power". A newsgroup limited to ASCII text is not the best medium to attempt this... so will the forthcoming QEX article oblige?

>
>I'm a professional teacher

Then this is far more serious than I thought! :-)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

802. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 15:49:30 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <aLednS5P2ZMeKzTfRVn-gw@comcast.com>
Source record: 75467

"butlercellars" <butlercellars@hotmail.com> wrote in message
news:y3%pe.13$W4.25@okeanos.csu.net...
....
> As I stated in my original post, my VHF antenna has 1/2 wave horizontal
> FM elements too. The antenna works great for TV, but not FM. There's
> just something about my terrain where 1/2 wave horizontal FM elements are
> ineffective. Therefore, I'd like to try a good vertical (semi-vertical)
> omni.
>
> -Bob

Are you sure about that? Generally, a VHF TV antenna with two sets of
elements has one set for channels 2 - 6 and another for 7 - 13. FM elements
would be about 4-1/2 feet tip to tip.
>
>
Tam/WB2TT

803. Re: Determining SWR and Transmission Line Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 16:51:34 UTC
From: Dan Richardson <k6mh>
Message-ID: <3ufja1lk58vsamrci1pc8stilmhio76t5l@4ax.com>
Source record: 75468

Dave, your assumptions are off the mark.

On Fri, 10 Jun 2005 12:45:29 -0000, "Dave" <noone@nowhere.com> wrote:

>to determine the swr you have to figure the impedance, which can vary
>depending on height, exact shape, etc... no single formula, you can model
>with a program of course, but its likely easier to measure it.

NEC modeling of a 40-meter dipole at 66'

40-meters: Z= R69.5 J0 SWR (RG-58)= 1.4:1

20-meters Z= R4,198 +j1742 SWR(RG-58)= 98:1

Total Transmission line loss using RG-58

Total line loss (100 ft)= 1.278dB

Total line loss (100ft)= 11.64dB

>
>as for losses... 100' of rg-58 on 20m has a loss of about 1.5db when
>matched. raise that swr to 20:1 at the load and the loss goes up to 5db
>(using graphs in old arrl antenna book so the exact numbers may be off a
>bit, but who cares). so you might lose 1 s-unit if you try to use the 40m
>dipole on 20m, likely something less.
>
>now, if you use a common twin lead and drop that 1.5 db to .5db, then raise
>the swr to 20:1 you still lose 3db. so for all the extra problems of
>getting twin lead in and out of a house, and messing up the 40m match, you
>save 2db.
>

Same antenna using 100 feet of 450-ohm ladder line

40-meters: Z= R69.5 J0 SWR = 6.5:1

20-meters Z= R4,198 +j1742 SWR = 11:1

40-meters total line loss=0.19dB

20-meters total line loss=0.55dB

The antenna feed point impedance calculated using EZNEC

Transmission line loss calculated using TWL

Regards,

Danny, K6MHE

804. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 17:08:48 UTC
From: richardharrison@webtv.net
Message-ID: <27326-42A9C920-84@storefull-3253.bay.webtv.net>
Source record: 75469

Cecil, W5DXP wrote:
"The reflection from surface "A" is canceled by an equal magnitude and opposite phase reflection from surface "B:."

Is this not analogous to what happens on a short-circuited 1/4-wave stub? The hard short reverses the phase. That, combined with travel to and from the short, produces a total phase rotation of 360-drgrees.

The result is that the open end of the short-circuited stub, the incident voltage is in-phase and of the same magnitude (no stub loss) so that no current flows between the incident and reflected sources.

It is as if one connects identical battery cells ib parallel. The impedance is, in effect, infinite between sources of identical voltage.

Optical experts must have siezed upon the opposite of this somehow. Their quarter-wave must have ben terminated in the equivalent of an open-circuit. This 1/4 wave would accept 100% of light presented at its surface, or would it need to present 377 ohms at its surface?

I am ignorant of optics and find the analogy difficult to understand.

Best regards, Richard Harrison, KB5WZI

805. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 17:45:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Bkkqe.39$ld5.1436742@news.sisna.com>
Source record: 75327
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
... I won't hold with any religion which recognizes time... I am a time
atheist...

... do seventh-day-buddists recognize time?

We have a terrorist cell now which is planning the suicide bombing of
WWV!!! Fort Collins Colorado--HERE WE COME! <evil
hehehehehheeeeeeeeeeeeeeeeee!>

Warmest regards,
John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:e0a9$42a9b0f2$97d55d24$27448@ALLTEL.NET...
> Quarks exception is not recognized by my religion. I am a Seventh Day
> Bhudist.
>
> <kashe@sonic.net> wrote in message
> news:l0oia1tih231qieuf0oramv532lu4us0ju@4ax.com...
>> On Tue, 7 Jun 2005 18:07:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >John, may I pass on a bit of advice my Daddy gave me as a young lad.
>> >When
>> >arguing with a jackass, make sure he is not doing the same thing.
>> >
>> >You have allowed yourself to fall in to the teaching a pig to sing
>> >mode.
>> >
>> >Exercising Godwins law, the guy is a Nazi.
>>
>> Have you forgotten the corollary which states that invocation
>> of Nazism expressly for the purpose of terminating the argument is
>> invalid and does not terminate debate?
>>
>> Similarly, just because it rains every time you wash your car,
>> you cannot invoke a rainy day by washing your car for that purpose.
>>
>> Contrariwise, it can be proven that, while the phone may ring
>> every time you go into the bathroom, you can indeed force the phone
>> to
>> ring at will just by entering the bathroom. Tubs work the same way.
>
>
```

806. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 17:50:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a9d3e4$1_1@spool9-west.superfeed.net>
Source record: 75470

Ian White GM3SEK wrote:
> None of those observations proves the existence of "waves of energy and
> power". They can all be explained more simply and easily in terms of
> waves of voltage and/or current (or in circulators and waveguide, waves
> of E-field and/or H-field).

Ian, I haven't seen you, or anyone else, offer proof that
"waves of voltage and/or current" can exist without energy.
I always thought ExH equals the power in the Poynting Vector
for any EM wave whether it be an RF wave or a light wave.

> The world is still waiting for an explanation of the detailed internal
> workings of *any* of those devices, done entirely in terms of "waves of
> energy and power". A newsgroup limited to ASCII text is not the best
> medium to attempt this... so will the forthcoming QEX article oblige?

The QEX article's present title is: "An Energy Analysis at
an Impedance Discontinuity in an RF Transmission Line".
It is mostly a review of the principles of the wave
reflection model which was invented before anyone hatched
the stupid idea that waves can exist without energy. :-)
It will be mostly old hat stuff for people who have ever
done an analysis using power reflection coefficients but
that seems to be a lost art lately.

Incidentally, a complete analysis of a Z0-matched impedance
discontinuity can be done using only an energy analysis.
If voltages and currents are actually required, their
magnitudes and phases can be calculated from the energy
components.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

807. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 18:00:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o3lja1pf3g9dti4hh8srm1g8ciom7beg41@4ax.com>
Source record: 75471

On Fri, 10 Jun 2005 12:08:48 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>I am ignorant of optics and find the analogy difficult to understand.

Hi Richard,

You stand second only to the source that drew this difficulty.

In fact, the "technical" quality of all presentations in this thread have plunged so far south that even the penguins avoid them.

73's
Richard Clark, KB7QHC

808. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 18:41:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42a9dfbe$1_2@spool9-west.superfeed.net>
Source record: 75472

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "The reflection from surface "A" is canceled by an equal magnitude and
> opposite phase reflection from surface "B:."
>
> Is this not analogous to what happens on a short-circuited 1/4-wave
> stub? The hard short reverses the phase. That, combined with travel to
> and from the short, produces a total phase rotation of 360-drgrees.
> The result is that the open end of the short-circuited stub, the
> incident voltage is in-phase and of the same magnitude (no stub loss) so
> that no current flows between the incident and reflected sources.

No net current flows but the forward current and reflected current
are constant RMS values as are the forward and reflected voltage
values. The virtual impedance at the mouth of a lossless 1/4WL
shorted stub is (Vfor+Vref)/(Ifor-Iref) where Vfor/Ifor = Z0
and Vref/Iref = Z0. Since Ifor=Iref for a lossless stub, the
impedance is zero. But the current is quite high at the shorted
end of the stub where it is Ifor+Iref.

You can estimate that current if you measure the voltage at
the mouth of the stub. 0.5*V/Z0 will yield the estimated forward
or reflected current.

> It is as if one connects identical battery cells ib parallel. The
> impedance is, in effect, infinite between sources of identical voltage.
>
> Optical experts must have siezed upon the opposite of this somehow.
> Their quarter-wave must have ben terminated in the equivalent of an
> open-circuit. This 1/4 wave would accept 100% of light presented at its
> surface, or would it need to present 377 ohms at its surface?

The phase of reflections follows a different convention in optics.
And the index of refraction is inversely proportional to Z0. But
a 1/4WL of thin film is akin to 1/4WL of transmission line used
as a series matching section - not parallel but series. This is
essentially how non-glare glass works.

source---50 ohm coax---+---1/4WL 61 ohm coax---+---75 ohm load

50/50 = 1.00, the index of refraction for air
61/50 = 1.22, a good index of refraction for a thin-film
75/50 = 1.50, a good index of refraction for glass

> I am ignorant of optics and find the analogy difficult to understand.

I've learned more about reflections and superposition from "Optics",
by Hecht, than from any other single source. I highly recommend it.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

809. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 19:32:26 UTC
From: Bob Spooner <rls19@psu.edu>
Message-ID: <d8cpsd$173i$1@f04n12.cac.psu.edu>
Source record: 75473

Actually, some TV antennas reject the FM band so that strong FM signals
don't overload the TV receiver front end.

73,
Bob AD3K

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:aLednS5P2ZMeKzTfRVn-gw@comcast.com...
>
> "butlercellars" <butlercellars@hotmail.com> wrote in message
> news:y3%pe.13$W4.25@okeanos.csu.net...
> .....
> > As I stated in my original post, my VHF antenna has 1/2 wave horizontal
> > FM elements too. The antenna works great for TV, but not FM. There's
> > just something about my terrain where 1/2 wave horizontal FM elements
are
> > ineffective. Therefore, I'd like to try a good vertical (semi-vertical)
> > omni.
> >
> > -Bob
>
> Are you sure about that? Generally, a VHF TV antenna with two sets of
> elements has one set for channels 2 - 6 and another for 7 - 13. FM
elements
> would be about 4-1/2 feet tip to tip.
> >
> >
> Tam/WB2TT
>
>

810. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 19:32:28 UTC
From: richardharrison@webtv.net
Message-ID: <20867-42A9EACC-108@storefull-3252.bay.webtv.net>
Source record: 75474

Bob wrote:
"There`s a 99 FM xmtr a couple of miles to the SE of me, lower in elevation, right in the path of all the other stations - & right smack in the middle of the FM band."

Bob seems to be lucky that the elevation of the interferring station is enough lower that keeping the receiving antenna low hides it. That seems to be what`s going on with the car radio and the built-in antenna on his stationary radio.

Further suppression can come from a parallel-resonant trap in the middle of his FM antenna element(s). This should make the elements an open circuit at 99 MHz. Bob`s other stations aren`t on 99 MHz.

For higher Q in the parallel-resonant trap, it might be wise to use 1/4-wave short-circuit stubs. Impedance should be high for 99 Mhz and lower for other frequencies. For a folded dipole, you might try to use one, 1/4-wave short-circuit stub and locate it in the middle of the side of the dipole opposite the feedpoint. This can all be made of 300-ohm TV twinlead if desired. This may not be as effective as stubs in each side of the 1/2-wave dipole. Folded dipoles are really loops. Frequently loops have similar characteristics, open-circuit or short-circuit. Placed in the middle of each side of the driven element of the folded dipole, its resonance will be disturbed at the frequency of the 1/4-wave short-circuit stubs.

Best regards, Richard Harrison, KB5WZI

811. Re: Determining SWR and Transmission Line Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 19:50:35 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <famqe.58238$9A2.29807@edtnps89>
Source record: 75354

"Dan Richardson arrl net>" <k6mh<atdot> wrote in message
news:3ufja1lk58vsamrci1pc8stilmhio76t5l@4ax.com...
> Dave, your assumptions are off the mark.
>
> On Fri, 10 Jun 2005 12:45:29 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>to determine the swr you have to figure the impedance, which can vary
>>depending on height, exact shape, etc... no single formula, you can model
>>with a program of course, but its likely easier to measure it.
>
> NEC modeling of a 40-meter dipole at 66'
>
> 40-meters: Z= R69.5 J0 SWR (RG-58)= 1.4:1
>
> 20-meters Z= R4,198 +j1742 SWR(RG-58)= 98:1
>
> Total Transmission line loss using RG-58
>
> Total line loss (100 ft)= 1.278dB
>
> Total line loss (100ft)= 11.64dB
>
>>
>>as for losses... 100' of rg-58 on 20m has a loss of about 1.5db when
>>matched. raise that swr to 20:1 at the load and the loss goes up to 5db
>>(using graphs in old arrl antenna book so the exact numbers may be off a
>>bit, but who cares). so you might lose 1 s-unit if you try to use the 40m
>>dipole on 20m, likely something less.
>>
>>now, if you use a common twin lead and drop that 1.5 db to .5db, then
>>raise
>>the swr to 20:1 you still lose 3db. so for all the extra problems of
>>getting twin lead in and out of a house, and messing up the 40m match, you
>>save 2db.
>>
>
> Same antenna using 100 feet of 450-ohm ladder line
>
> 40-meters: Z= R69.5 J0 SWR = 6.5:1
>
> 20-meters Z= R4,198 +j1742 SWR = 11:1
>
> 40-meters total line loss=0.19dB
>

> 20-meters total line loss=0.55dB
>
> The antenna feed point impedance calculated using EZNEC
>
> Transmission line loss calculated using TWL
>
> Regards,
>
> Danny, K6MHE
>

The nominal impedance of a 40 m dipole on 20 m, at 30 ft above an average ground, is
4700 + j0. There may be some inductive or capacitive reactance present -- depending on the exact length of the antenna -- but it will not effect the transmission line losses significantly.

100 ft of RG 58 exhibits a total line loss of about 13 dB when terminated with the above impedance. i.e. 100 W in gives 5 W radiated.

For the above analysis I used NEC 2 for the antenna model, and ARRL's TLA for the transmission line loss.

The results are very similar to K6MHE, but should show zero reactance on some frequency. Anyway the losses are close.

Regards,

Frank

812. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 19:51:48 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <d8cr0n$4b8$1@news.service.uci.edu>
Source record: 75325

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> It was a tongue-in-cheek reply, Roy. These problems always seem to
>> end up with a circulator in them at some point - clearly illustrating
>> what happens under entirely different circumstances. :-)
>
>
> The circulator, lossless feedlines of unreasonable length,
> Time Domain Reflectometers, TV ghosting, etc. are all tools
> for illustration purposes. However, a Z0-matched system is
> an ordinary configuration in ham radio and is easy to analyze
> since no reflected energy is allowed to reach the source. The
> conservation of energy and momentum rules dictate where the
> energy must go in such a case. We can debate why the reflected
> energy is 100% re-reflected but there is no question that it
> *is* 100% re-reflected because none reaches the source and
> there are only two directions in a transmission line.

I wish we were able to discuss this without it becoming so confrontational. As I've said to you many times, you've got 98% of this thing nailed to a tee. But that 2% is a major error from a physical standpoint. Energy is not flowing in the way you describe it. Power doesn't flow at all, but that's a different discussion. When the fields cancel, as in the anti-reflective/impedance matching scenario, energy is not conveyed in the reflected direction. There is no conservation of energy problem until you claim that that energy from cancelled waves IS moving in the reflected direction. Once you make that claim, you're forced to imagine a way for it to reverse its course, and that's where the problem lies. We've been over this a hundred times and you just refuse to accept it. It violates physics. It violates Maxwells equations. It's wrong, and I hate arguing with you about it, but as a fellow enthusiast I advise you not to print that part of your article in QEX. It's an absurdity in the midst of brilliance, not unlike myself. ;-)

73, Jim AC6XG

813. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 20:04:16 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42a9f29b_5@newsfeed.slurp.net>
Source record: 75326

"Richard Harrison" wrote:
For higher Q in the parallel-resonant trap, it might be wise to use 1/4-wave short-circuit stubs. Impedance should be high for 99 Mhz and lower for other frequencies. For a folded dipole, you might try to use one, 1/4-wave short-circuit stub and locate it in the middle of the side of the dipole opposite the feedpoint.

A 1/4 wave at what freq? If 99 MHz, that stub configuration will have ~ zero loss at 99 MHz, and greatest loss centered on the 2nd harmonic (not what he needs).

RF

814. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 20:32:50 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-687E2C.13325010062005@news.newsguy.com>
Source record: 75328
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <Bkkqe.39$Id5.1436742@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> ... I won't hold with any religion which recognizes time... I am a time
> atheist...
>
> ... do seventh-day-buddists recognize time?
>
> We have a terrorist cell now which is planning the suicide bombing of
> WWV!!! Fort Collins Colorado--HERE WE COME! <evil
> heheheheheeeeeeeeeeeeeeeeee!>
>
> Warmest regards,
> John

Wow. You still think you're amusing.

Tony

815. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 21:55:17 UTC
From: Karthik Subramanian <subramaniank@er6s1.eng.ohio-state.edu>
Message-ID: <BECF8485.1FE4%subramaniank@er6s1.eng.ohio-state.edu>
Source record: 75329
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On 6/10/05 4:32 PM, in article
shadowlane-687E2C.13325010062005@news.newsguy.com, "Tony Elka"
<shadowlane@shadowlane.com> wrote:

> In article <Bkkqe.39$Id5.1436742@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> ... I won't hold with any religion which recognizes time... I am a time
>> atheist...
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>> ... do seventh-day-buddists recognize time?
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>> We have a terrorist cell now which is planning the suicide bombing of
>> WWV!!! Fort Collins Colorado--HERE WE COME! <evil
>> heheheheheeeeeeeeeeeeeeeeee!>
>>
>> Warmest regards,
>> John
>
>
>
>
> Wow. You still think you're amusing.
>
> Tony

Still I cant wait for the next episode of "The Buddhist Massacre"

816. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 22:11:51 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Jeoqe.1344$OI2.2475037@news.sisna.com>
Source record: 75331
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Heeeeeeeeeeeee's Baaaaaaaaaaaack!!!!

John

"Tony Elka" <shadowlane@shadowlane.com> wrote in message
news:shadowlane-687E2C.13325010062005@news.newsguy.com...
> In article <Bkkqe.39$Id5.1436742@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> ... I won't hold with any religion which recognizes time... I am a
>> time
>> atheist...
>>
>> ... do seventh-day-buddists recognize time?
>>
>> We have a terrorist cell now which is planning the suicide bombing of
>> WWV!!! Fort Collins Colorado--HERE WE COME! <evil
>> heheheheheeeeeeeeeeeeeeeeee!>
>>
>> Warmest regards,
>> John
>
>
>
>
> Wow. You still think you're amusing.
>
> Tony

817. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 22:57:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa1bba$1_2@spool9-west.superfeed.net>
Source record: 75330

Jim Kelley wrote:
> I wish we were able to discuss this without it becoming so
> confrontational.

Me too. Please treat me the way you would like to be treated
and we will get along just fine. Oh, and thanks for the doorknob
caps. I use them now instead of stubs.

> As I've said to you many times, you've got 98% of this
> thing nailed to a tee. But that 2% is a major error from a physical
> standpoint. Energy is not flowing in the way you describe it. Power
> doesn't flow at all, but that's a different discussion.

I've been very careful to consider power as the measured energy flowing
past a point even though many others, including the IEEE, present the
Power Flow Vector right along with the current phasor. But as far as
EM wave energy and power are concerned, they are virtually
interchangeable. EM wave energy always travels at the speed of light -
imagine that. :-) The energy in an EM wave can only be stored as an
EM wave traveling at the speed of light as in a delay line. It cannot
be put into an RF battery and used as needed for an old wives' tale.
Walter Johnson recognized the close relationship between EM energy and
EM power and actually presented the "conservation of power" principle in
his book. The only difference between EM energy and EM power is time.
The joules in the joules/sec must be conserved.

> When the fields
> cancel, as in the anti-reflective/impedance matching scenario, energy is
> not conveyed in the reflected direction.

Of course, and I never said it was. That's your straw man left over from
our last argument. If the fields cancel, there is no energy available
for a rearward flow. That's why you cannot measure reflected power in
the coax on a Z0-matched system. All the reflected energy has changed
direction. But we know the internal reflected energy has traveled in
the rearward direction. What altered its momentum in that rearward
direction?

Energy must be conveyed from the far surface or the fields would not
cancel. That's called the internal reflection and its rearward flow
can be detected. Since the internal reflection wave possesses momentum
in the rearward direction, something has to reverse that momentum. We
can disagree on the mechanism that reverses the momentum of the
internal reflected wave, but the wave is there and can be detected.

The entire reason I cannot accept what you say is that you have never given a reasonable explanation of what happens to the momentum of the rearward-traveling internal reflection wave. Want to try again? Please concentrate on that one topic. Resolving the momentum in the internal reflection wave is the only way to convince me that I am wrong. I think that is the concept that convinced the QEX editors that I was right. If one accepts the conservation of momentum principle, then one has to accept a cause for the reversal of that momentum.

The internal reflection wave is illustrated in section 9.4.1 of "Optics". It has obviously traveled in the rearward direction across the width of the thin-film. What happens to its momentum and energy if it gets canceled?

> There is no conservation of
> energy problem until you claim that that energy from cancelled waves IS
> moving in the reflected direction.

Something has to reverse the momentum in the wave reflected from the far surface, i.e. the "internal reflection". If you don't know what that is, reference section 4.3 in "Optics". You have never given a reasonable explanation of what reverses the momentum of the internal reflection which, I'm sure you would agree, doesn't appear in the glare so it had to be reversed. Exactly how was it reversed?

> Once you make that claim, you're
> forced to imagine a way for it to reverse its course, and that's where
> the problem lies.

No, since it is obvious that the momentum of that internal reflection wave reverses, a reversing mechanism is necessary. I've presented a mechanism and you haven't.

> We've been over this a hundred times and you just
> refuse to accept it.

Yes, and you refuse to accept it. Momentum doesn't change by magic. There has to be a physical reason. I have presented my take on that physical reason. You have presented no explanation. Between having an explanation and having none, guess what my choice will be?

Please just explain how the momentum in the internal reflection wave gets reversed within the boundary conditions of the classical wave reflection model. No quantum physics, please.

So let's concentrate on that narrow topic of what happens to the momentum in the internal reflection wave, shall we? Here's a diagram where 'n' is the index of refraction and the internal reflection from surface 'B' is shown:

```
| |
laser--------air----|----thin-film-------|----glass---------
n-1.0 | n=1.2222 | n=1.4938
A <--reflection----B
```

The internal reflection that I have been talking about occurs when
the forward wave in the thin-film encounters surface 'B'. The
reflectance is 0.01 at that surface so one percent of the forward
irradiance will be reflected. It will have momentum in the rearward
direction. Please tell us what alters the momentum of that reflection
such that it doesn't appear as glare at surface 'A' and instead
reverses direction and joins the forward wave.
--
73, Cecil http://www.qsl.net/w5dxp

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818. Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-10 23:46:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa2756$1_2@spool9-west.superfeed.net>
Source record: 75332

To Jim, and anyone else who wants to discuss it. I've created
a graphic illustrating reflections from a thin-film when the
incident laser beam is at an angle to the thin-film surface.

http://www.qsl.net/w5dxp/weblaser.GIF

Question for Jim: I can see Reflection A and Reflection B.
I can measure the irradiance of Reflection A and Reflection B.
Are the two reflections really there or not? If they are there,
do they possess energy and momentum?

That will get us started.
--
73, Cecil http://www.qsl.net/w5dxp

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819. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:06:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hdaka1dfdgtgt4hagdlcrqg94dtc17nori@4ax.com>
Source record: 75334

On Fri, 10 Jun 2005 18:46:47 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>That will get us started.
Rolling on the floor laughing, no doubt.
5 place precision indeed :-)
1000mW in,
20mW reflected,
1010.1mW internal and
1000mW out.

Makes as much sense as Roy's "who's on first base?" math.

820. Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:07:01 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <FWpqe.44766$on1.634@clgrps13>
Source record: 75333

Having trouble with posting. Sent two messages today, and no sign of them yet.

821. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:11:55 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <f%pqe.44767$on1.4843@clgrps13>
Source record: 75335

Having trouble responding to the above posting. Hope it is not duplicating what I have tried to send before.

The nominal impedance of a 40 m dipole on 20 m, at 30 ft above an average ground, is
4700 + j0. There may be some inductive or capacitive reactance present -- depending on the exact length of the antenna -- but it will not effect the transmission line losses significantly.

100 ft of RG 58 exhibits a total line loss of about 13 dB when terminated with the above impedance. i.e. 100 W in gives 5 W radiated.

For the above analysis I used NEC 2 for the antenna model, and ARRL's TLA for the transmission line loss.

The results are very similar to K6MHE, but should show zero reactance on some frequency. Anyway the losses are close.

Regards,

Frank

822. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:14:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa2dd7$1_2@spool9-west.superfeed.net>
Source record: 75336

Richard Clark wrote:
> On Fri, 10 Jun 2005 18:46:47 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>That will get us started.
>
> Rolling on the floor laughing, no doubt.
> 5 place precision indeed :-)
> 1000mW in,
> 20mW reflected,
> 1010.1mW internal and
> 1000mW out.
>
> Makes as much sense as Roy's "who's on first base?" math.

You were too quick on the trigger. I copied one of my
article graphics and then decided you are right before
you told me. I removed the extraneous stuff and
simplified it and reposted it to my web page. Please
try again.

http://www.qsl.net/w5dxp/weblaser.GIF
--
73, Cecil http://www.qsl.net/w5dxp

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823. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:16:43 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11akbb8qc5jo216@corp.supernews.com>
Source record: 75337

Cecil Moore wrote:

> To Jim, and anyone else who wants to discuss it. I've created
> a graphic illustrating reflections from a thin-film when the
> incident laser beam is at an angle to the thin-film surface.
>
> http://www.qsl.net/w5dxp/weblaser.GIF
>
> Question for Jim: I can see Reflection A and Reflection B.
> I can measure the irradiance of Reflection A and Reflection B.
> Are the two reflections really there or not? If they are there,
> do they possess energy and momentum?
>
> That will get us started.

It doesn't show up on my web browser. Do you have the URL right?

If you have a photon zinging through space it posseses both energy and momentum, and they are each an easy function of the wavelength.

To pick nits, if you have a _stream_ of photons zinging by it will posess, on average, power and thrust (or whatever the time-derivative of momentum is called). If reflections A and B are both there they will each carry a certain amount of power and exert a certain thrust somewhere.

If you have actually set up this thin film experiment and measured two seperate reflections then they are indeed there. You can debate whether the reflections are truely reflective of the theory that you're trying to demonstrate or if they reflect (or perhaps reflect off of?) imperfections in your experimental setup.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

824. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:19:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa2f0b$1_2@spool9-west.superfeed.net>
Source record: 75338

Frank wrote:
> The nominal impedance of a 40 m dipole on 20 m, at 30 ft above an average
> ground, is
> 4700 + j0. There may be some inductive or capacitive reactance present --
> depending on the exact length of the antenna -- but it will not effect the
> transmission line losses significantly.
>
> 100 ft of RG 58 exhibits a total line loss of about 13 dB when terminated
> with the above impedance. i.e. 100 W in gives 5 W radiated.

While 1/4WL (or 3/4WL or 5/4WL) of 450 ohm ladder-line yields an
impedance at the transmitter of 43 ohms for a 50 ohm SWR of 1.16:1
without a tuner and very low line losses. What could be sweeter?
--
73, Cecil http://www.qsl.net/w5dxp

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825. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:21:03 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <6gbka1hng6dlvm3bsdv3m27hta1mdavfhi@4ax.com>
Source record: 75339

On Fri, 10 Jun 2005 11:19:29 GMT, ml <m@di.net> wrote:

>In article <50efa11cah90usp072028opbjp1vtrl3oh@4ax.com>,
> Wes Stewart <n7ws_@*yahoo.com> wrote:
>
>> On Wed, 08 Jun 2005 17:57:21 -0000, dplatt@radagast.org (Dave Platt)
>> wrote:
>>
>>
>> >Similar issues are likely to exist in recent-model cars which have a
>> >lot of fiberglass or other composite-plastic panels and structure.
>>
>> Back in the good old days, I was the proud owner of a 1956 Corvette,
>> one of only 3467 built and along with the '57s, the prettiest ones
>> ever buit. (damn I wish I had that car back). As are all Corvettes,
>> it was fiberglass.
>
><<<<all corvettes were not fiberglass!
^^^^^^^^^^^^^^^^^^^^^^^^

OK, I'm calling bullshit on this one. What production Corvette was
not GRP (glass reinforced polyester) or other non-metallic composite?

R

>
>
>
>
>>
>> The soft top was stored under a flip up hatch behind the seats and
>> there were two toggle clamps that secured the rear of the top when it
>> was up. These penetrated the hatch cover so that it was possible to
>> snake a vertical whip through them. I used a 17" aluminum
>> transcription disk (common in broadcast stations of the day) with the
>> coating stripped off for a ground plane under the hatch.
>>
>> Best DX using a Heathkit "Twoer" was from the driveway of a friend in
>> Tempe, AZ back to another friend in Tucson; about 100 miles.
>>
>> This wasn't long after QST magazine had breathlessly reported that the
>> "difficult path" between Tucson and Phoenix had been bridged.

826. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:23:55 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <42ab2eeb.54821429@news.blueyonder.co.uk>
Source record: 75340

On Thu, 09 Jun 2005 22:34:04 -0400, in rec.radio.amateur.antenna you wrote:

>Hi Rob,
>
>Gotta' ask 'ya. Didn't you tell your bride-to-be that you were a ham, and might
>need an antenna, before you asked her to marry you? Something like a pre-nup?
>Walt, W2DU

Before I married my wife (40 years ago in August!) I showed her the ham shack and had a QSO on 160m (AM phone in those days!) with her present. I let her say hello to some guy across town, warning her that it was illegal in the UK then for someone unlicensed to speak over amateur radio so she'd better make it quick. Her first words on 160m were, " I think I'm breaking the law by talking to you...." !!! Thank God it wasn't 20 metres or the whole world would have heard her!

She's been very tolerant ever since...

Peter, G3PHO

827. Question on MFJ Telescope mast

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:28:22 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9671B1E0C1223spectrumhogstarbandn@207.106.93.175>
Source record: 75341

Does anyone here have an MFJ telescoping antenna mast, model MFJ 1910?
I have a 30' no-name mast marketed as a flag mast for RV'ers. At full
extension it bends quite a bit at the top when supporting an 80M inverted V
/ Dipole of #14 copperweld. My question is, does the MFJ antenna mast
bend a lot under similar circumstances?

Ed K7AAT

828. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:31:15 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11akc6g9mqmpn3e@corp.supernews.com>
Source record: 75342

Tim Wescott wrote:

> Cecil Moore wrote:
>
>> To Jim, and anyone else who wants to discuss it. I've created
>> a graphic illustrating reflections from a thin-film when the
>> incident laser beam is at an angle to the thin-film surface.
>>
>> http://www.qsl.net/w5dxp/weblaser.GIF
>>
>> Question for Jim: I can see Reflection A and Reflection B.
>> I can measure the irradiance of Reflection A and Reflection B.
>> Are the two reflections really there or not? If they are there,
>> do they possess energy and momentum?
>>
>> That will get us started.
>
>
> It doesn't show up on my web browser. Do you have the URL right?
>
> If you have a photon zinging through space it posseses both energy and
> momentum, and they are each an easy function of the wavelength.
>
> To pick nits, if you have a _stream_ of photons zinging by it will
> posess, on average, power and thrust (or whatever the time-derivative of
> momentum is called). If reflections A and B are both there they will
> each carry a certain amount of power and exert a certain thrust somewhere.
>
> If you have actually set up this thin film experiment and measured two
> seperate reflections then they are indeed there. You can debate whether
> the reflections are truely reflective of the theory that you're trying
> to demonstrate or if they reflect (or perhaps reflect off of?)
> imperfections in your experimental setup.
>

OK, now I can see your post. Yes, those reflections are real, and the
numbers are probably about as good as you'll get from clean AR coated
glass, IFAIK (_dirty_ AR coated glass will give you much larger
reflections). Laser rangefinders get one heck of a return when they
fire, and are limited in the minimum range that they can measure because
of the time that it takes for the receiver to recover (or be turned on,
depending on the LRF architecture).

I'm confused by your confusion -- what are you trying to do, and why do
you have to ask?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

829. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:39:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa33ab$1_1@spool9-west.superfeed.net>
Source record: 75343

Tim Wescott wrote:

> Cecil Moore wrote:
>> http://www.qsl.net/w5dxp/weblaser.GIF
>>
> It doesn't show up on my web browser. Do you have the URL right?

Dang, you guys are fast. You must have caught it just as I was
downloading the simpler version. Please try again.

> If you have actually set up this thin film experiment and measured two
> seperate reflections then they are indeed there.

I probably could set up that experiment but right now I'm just
talking about it. I'm sure the angle of incidence could be
adjusted until both reflections show up as separate dots on the
retina. How much laser power will burn a retina?

In any case, essentially the same diagram is in any good physics
book. Page 1350 in "Sears and Zemansky's University Physics" by
Young & Freedman, Texas A&M custom edition. Page 505 in "Elements
of Physics" 2nd edition, by Shortley and Williams (c) 1955 :-).
--
73, Cecil http://www.qsl.net/w5dxp

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830. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:41:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa3447$1_1@spool9-west.superfeed.net>
Source record: 75344

Tim Wescott wrote:
> I'm confused by your confusion -- what are you trying to do, and why do
> you have to ask?

I'm not confused. I'm trying to alleviate Jim's confusion. :-)
The next step is to slowly collimate the beam normal to
the thin-film and watch what happens to the reflections. Jim
implies there won't be an internal reflection from surface 'B'
when the beam is collimated. I say it will still be there
possessing energy and momentum. That's the crux of our argument.
--
73, Cecil http://www.qsl.net/w5dxp

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831. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:57:13 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <JFqqe.44797$on1.7535@clgrps13>
Source record: 75345

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42aa2f0b$1_2@spool9-west.superfeed.net...
> Frank wrote:
>> The nominal impedance of a 40 m dipole on 20 m, at 30 ft above an average
>> ground, is
>> 4700 + j0. There may be some inductive or capacitive reactance
>> present --
>> depending on the exact length of the antenna -- but it will not effect
>> the
>> transmission line losses significantly.
>>
>> 100 ft of RG 58 exhibits a total line loss of about 13 dB when terminated
>> with the above impedance. i.e. 100 W in gives 5 W radiated.
>
> While 1/4WL (or 3/4WL or 5/4WL) of 450 ohm ladder-line yields an
> impedance at the transmitter of 43 ohms for a 50 ohm SWR of 1.16:1
> without a tuner and very low line losses. What could be sweeter?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

I agree, but many people do not seem to get it.

73,

Frank

832. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 00:58:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q8dka19ir8g42qtk1pqsdnk42tt2epalkn@4ax.com>
Source record: 75346

On Fri, 10 Jun 2005 19:14:32 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Please try again.
Indeed, as if a million monkeys would eventually write Hamlet....

The laugh-athon continues Roy's "I don't know's on third!" math.

Even with all precision removed (two places is two places too many :-)
the rays show absolutely no evidence of refraction (which makes the
reflections bogus), and the angles are unmarked (which makes the 10mW
labels spurious), and the term irradiance was pulled out of a hat (it
is radiant flux - iff we are to believe anything).

Back to Optical kindergarten.

833. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 01:54:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa4527$1_1@spool9-west.superfeed.net>
Source record: 75347

Richard Clark wrote:
> Even with all precision removed (two places is two places too many :-)
> the rays show absolutely no evidence of refraction (which makes the
> reflections bogus), and the angles are unmarked (which makes the 10mW
> labels spurious),

:-) It's a conceptual thought experiment, Richard, not
a cruse missile design.

> and the term irradiance was pulled out of a hat (it
> is radiant flux - iff we are to believe anything).

Funny that Eugene Hecht, of "Optics" fame, disagrees
with you. "When we talk about the 'amount' of light
illuminating a surface, we are referring to something
called the irradiance, denoted by I - the average energy
per unit area per unit time."

All of Hecht's interference equations are presented
using 'irradiance' not 'radiant flux'. I quote those
equations in my article and possibly in this thread.
That's why I am using 'irradiance'.
--
73, Cecil http://www.qsl.net/w5dxp

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834. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 02:08:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <09hka1h6717k8fg014ggm1c63fues4t3n2@4ax.com>
Source record: 75348

On Fri, 10 Jun 2005 20:54:00 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>a cruse missile design.

ROFL

And eventually this will lead to a balanced energy equation. :-)

Well if there are no places of precision, you are already there:
1 million monkeys with white-out.

>> and the term irradiance was pulled out of a hat (it
>> is radiant flux - iff we are to believe anything).
>
>Funny that Eugene Hecht, of "Optics" fame, disagrees
>with you. "When we talk about the 'amount' of light
>illuminating a surface, we are referring to something
>called the irradiance, denoted by I - the average energy
>per unit area per unit time."
What unit of area? Do your power meters read in Watts/cMï¿½ ?
SWR per acre? (or are you metric? SWR per hectare?)

Funny is right
and fame is fleeting when a fan posts your picture - face to the wall.

0% for effort,
10% for Xerox work
0% for graphics
0% for showing work
0% for correctness
-10% for inability to use spell-checker (cruse indeed)

F-

No one expects you to get it right.

835. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 02:51:12 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1118458272.484985.266960@g44g2000cwa.googlegroups.com>
Source record: 75349

Guys! Really! Seriously, she knows I'm a ham. We've been married for almost eleven years, and this is our first brand new home. We designed the home from pencil and paper up, everything IN it together. But what goes OUTSIDE in HER landscaped yard is something else. I've gotten the Queens permission to put up a tower on the back ten acres once the trees between hit tweenty feet high. until then I can live with the push up mast. Heck, now I'll have a new piece of gear for field day in the future. HA Ha.
Thanks for you concern for this poor put upon soul in the arm pit of Ohio,
Rob Brown
KB8WWS
73

836. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 03:01:27 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <busqe.2560$jX6.1802@newsread2.news.pas.earthlink.net>
Source record: 75350

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42aa2f0b$1_2@spool9-west.superfeed.net...
> Frank wrote:
> > The nominal impedance of a 40 m dipole on 20 m, at 30 ft above
> > an average ground, is 4700 + j0. There may be some inductive
> > or capacitive reactance present --depending on the exact length
> > of the antenna -- but it will not effect the transmission line losses
> > significantly.
> >
> > 100 ft of RG 58 exhibits a total line loss of about 13 dB when
> > terminated with the above impedance. i.e. 100 W in gives 5 W
> > radiated.
>
This seems a bit academic. I don't know anyone goofy enough to
run 100 feet of RG-58 with 100:1 SWR; do you?

> While 1/4WL (or 3/4WL or 5/4WL) of 450 ohm ladder-line yields an
> impedance at the transmitter of 43 ohms for a 50 ohm SWR of 1.16:1
> without a tuner and very low line losses. What could be sweeter?

What could be sweeter? I'd say a 20m dipole, coax fed. (Mine shows
1.0 SWR at band center, and under 1.5 full-band. Not fussy about feedline
length. Feedline also runs through a metal conduit, with no problems.
No tuner of ANY kind needed, distributed or conventional. Minimal
loss. QRO FB.)

But if one MUST operate a doublet far from 1/2-wave resonance, then
a balanced feedline plus tuner is the way to go. And implementing the
tuner in distributed form by tuning feedline length has some advantages
over a conventional, lumped-constant tuner. To my mind, the MAIN
advantage of the tunable feedline is that it can handle high power at
low cost. I'm a bit surprised you don't talk that advantage up more.

73, Ed, W6LOL

> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
=----

837. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 03:33:10 UTC
From: Andrew Brawley <fadedj_drew@coasterboys.com>
Message-ID: <pfCdnfNHeJ4kxjffRVn-1Q@rcn.net>
Source record: 75351
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42a3c216$1_2@spool9-west.superfeed.net...

> Speaking of which - The National Geographic Channel recently
> carried a program about another human species discovery on
> Flores Island. They have been dubbed "Hobbets", averaged 3.5
> ft. in height, were human, but a different species from us.
> They appeared about 60,000 years ago and became extinct
> about 15,000 years ago. Why would God do something like that?

Practice makes perfect(?)

Andre Brawley

fade out to reply

838. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 03:51:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aa60a6$1_1@spool9-west.superfeed.net>
Source record: 75352

Old Ed wrote:
> What could be sweeter? I'd say a 20m dipole, coax fed.

Well, a 66 ft. dipole used on 20m does exhibit gain over a
33 ft. dipole used on 20m by almost 2 dB.

> To my mind, the MAIN
> advantage of the tunable feedline is that it can handle high power at
> low cost. I'm a bit surprised you don't talk that advantage up more.

Funny thing about that. I came up with that idea when I bought
a 500 watt amp and didn't want to have to buy a 500 watt tuner.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

839. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 04:47:06 UTC
From: Robert J Carpenter <rcarpen@erols.com>
Message-ID: <d8dqca$k8b$1@xuxa.iecc.com>
Source record: 75355
Cross-posted to: misc.consumers.house,rec.radio.amateur.antenna,rec.radio.broadcasting,sci.engr.television.broadcast

I suspect that your home FM radio is very insensitive. Car radios are usually very good since you drivee through all the worst-signal places. Your home radio is either a poor design or is sick. Sit it on top of your car and put a 19-inch wire on the "hot" antenna terminal. It should receive about as many stations as the car radio. If it doesn't, get a new home radio - it would likely cost too much to fix what you have even if you could find someone who thought they knew how to do it.

I wouldn't worry about antennas until the above test showed that the radio works well.

bob c.

"butlercellars" <butlercellars@hotmail.com> wrote in message news:d8a846$r6c$1@xuxa.iecc.com...
> Our local cable company, Comcast, doesn't carry FM radio signals; therefore,
> I'm trying to improve my FM reception on my home receiver. I've had separate
> VHF and UHF antennas up for HDTV several years. They work wonders for HD and
> even analog TV, but the FM element on the VHF yagi surprisingly doesn't pick
> up much. Part of my problem is that I'm on an east facing hillside in the
> foothills directly north of one major metro market area and directly west of
> another. Despite that, I don't understand why I can get decent TV reception
> but no FM.
>
> After limited success with a homebrew folded dipole, I picked up a high gain
> three element FM yagi. No matter where I seem to point it, I'm not getting
> any more signal strength than with the dipole on the back of the receiver.
> You'd think that aiming it east, southeast, or south towards all those
> transmitters would pull in something, but gain is very weak. However, if I
> point it northwest, at about 45 degrees up the hill behind me, I can
> actually pull in a few decent stations. Aiming the antenna in the

opposite
> direction of the stations just seems contrary to logic. I understand
that
> ground waves travel parallel to the earth, but could the signals be
bouncing
> off the hillside too, acting like a huge reflector?
>
> The thing that really gets me is that I can get excellent reception
on all
> stations in my car sitting in the driveway, and driving around.
Therefore,
> I'm thinking of dumping the yagi and trying to find or build a
vertically
> polarized omni antenna. My car antenna does happen to be mounted at
about 45
> degrees. Any ideas on what might be going on, and how I might
improve my
> reception? Any antenna designs and dimensions would be helpful. I
guess
> worst case scenario is I can go down to the auto parts store, by a
car
> antenna, and put it on my roof.
>
> Please help. Many thanks!
>
> -Bob
>
>

840. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 04:47:08 UTC
From: Blue Cat <bluecat22@go.com>
Message-ID: <d8dqcc$k96$1@xuxa.iecc.com>
Source record: 75356
Cross-posted to: misc.consumers.house,rec.radio.amateur.antenna,rec.radio.broadcasting,sci.engr.television.broadcast

"butlercellars" <butlercellars@hotmail.com> wrote in message
news:d8a846$r6c$1@xuxa.iecc.com...
> Our local cable company, Comcast, doesn't carry FM radio signals;
therefore,
> I'm trying to improve my FM reception on my home receiver. I've had
separate
> VHF and UHF antennas up for HDTV several years. They work wonders for HD
and
> even analog TV, but the FM element on the VHF yagi surprisingly doesn't
pick
> up much. Part of my problem is that I'm on an east facing hillside in the
> foothills directly north of one major metro market area and directly west
of
> another. Despite that, I don't understand why I can get decent TV
reception
> but no FM.
>
> After limited success with a homebrew folded dipole, I picked up a high
gain
> three element FM yagi. No matter where I seem to point it, I'm not getting
> any more signal strength than with the dipole on the back of the receiver.
> You'd think that aiming it east, southeast, or south towards all those
> transmitters would pull in something, but gain is very weak. However, if I
> point it northwest, at about 45 degrees up the hill behind me, I can
> actually pull in a few decent stations. Aiming the antenna in the opposite
> direction of the stations just seems contrary to logic. I understand that
> ground waves travel parallel to the earth, but could the signals be
bouncing
> off the hillside too, acting like a huge reflector?
>
> The thing that really gets me is that I can get excellent reception on all
> stations in my car sitting in the driveway, and driving around. Therefore,
> I'm thinking of dumping the yagi and trying to find or build a vertically
> polarized omni antenna. My car antenna does happen to be mounted at about
45
> degrees. Any ideas on what might be going on, and how I might improve my
> reception? Any antenna designs and dimensions would be helpful. I guess
> worst case scenario is I can go down to the auto parts store, by a car
> antenna, and put it on my roof.
>
> Please help. Many thanks!
>
> -Bob

>
I have had some experience with rooftop antennas when I lived in Troy, NY. During the early 1970's there were not too many local FM broadcast stations in the area. When I put up the antenna, I was receiving signals on a regular basis up to 125 miles, and sporadically up to 200 miles. As the number of local stations increased, my ability to receive distant signals decreased. This was both from the fewer number of channels unoccupied by local stations, and the tendency of strong signals to desensitize my receiver. I used a rather lengthy Channel Master Yagi FM antenna, which I don't think is still on the market.

Perhaps you are in an area with strong local FM signals. You should try to drive around and see where you can pick up distant signals from your car. As an example, the Poughkeepsie / Kingston, NY metropolitarian area has only one or two UHF TV stations, but many local FM radio stations. Most residents rely on cable TV for stations from New York City or Albany, NY.

841. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 04:47:49 UTC
From: Dave Barnett <davencinNO@SPAMtdl.com>
Message-ID: <enqka1ljhj5lk0ga09gabdg0ullh8hsog4@4ax.com>
Source record: 75353

On Fri, 10 Jun 2005 08:28:02 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>An option would be to install a notch filter tuned for the local FM at the
>input to the problem receiver. It will attenuate that local signal (and
>others close to it in frequency, to some extent). A "5KFM" type notch
>filter from Microwave Filter Company may do the job, for about $25 as I
>recall. Here is a link: http://www.microwavefilter.com/
>
That's the perfect answer, but you may be able to achieve satisfactory
results by - surprisingly - adding an attenuator (a 6db 300-ohm pad
made from resistors would be a good start) in line with the antenna
lead. RF overload characteristics are proportional to the square of
the incoming signal, so the interference will be reduced more than the
desired signals. Also, a three-element FM antenna won't be nearly as
selective as a larger yagi of the type shown here:

http://www.starkelectronic.com/fm.htm

Putting one of these on a rotator will normally run rings around any
cable company unless you have interference from the new IBOC digital
radio signals.

Dave B.

842. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 05:22:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8dsfd$mq2$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75358

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:JFqqe.44797$on1.7535@clgrps13...
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42aa2f0b$1_2@spool9-west.superfeed.net...
> > Frank wrote:
> >> The nominal impedance of a 40 m dipole on 20 m, at 30 ft above an
average
> >> ground, is
> >> 4700 + j0. There may be some inductive or capacitive reactance
> >> present --
> >> depending on the exact length of the antenna -- but it will not
effect
> >> the
> >> transmission line losses significantly.
> >>
> >> 100 ft of RG 58 exhibits a total line loss of about 13 dB when
terminated
> >> with the above impedance. i.e. 100 W in gives 5 W radiated.
> >
> > While 1/4WL (or 3/4WL or 5/4WL) of 450 ohm ladder-line yields an
> > impedance at the transmitter of 43 ohms for a 50 ohm SWR of 1.16:1
> > without a tuner and very low line losses. What could be sweeter?
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
>
> I agree, but many people do not seem to get it.
>
> 73,
>
> Frank
>
==========

Just out of curiosity I calculated the following details of 100 feet
of RG-58 terminated with 4700 ohms at 14 MHz.

Line input impedance = 12.3 - j37.7 ohms.
SWR vs 50 ohms at termination = 88.6
SWR vs 50 ohms at generator end = 6.35
Matched loss of 100 feet of line = 1.3 dB
Actual loss = 11.4 dB
With 100 watts input, output into 4700 ohms = 7.2 watts.

A tuner is essential. There will be additional loss.

By the way, at the first current loop, line current is 3.41 amps. As the inner conductor diameter of RG-58 is only 0.78 mm, the temperature of the pvc jacket can rise to about 20 degrees C above ambient. So don't hold the line in the hand for too long.

Reg.

843. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 05:37:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11aku47qr911983@corp.supernews.com>
Source record: 75359

Cecil Moore wrote:
> Old Ed wrote:
>
>> What could be sweeter? I'd say a 20m dipole, coax fed.
>
>
> Well, a 66 ft. dipole used on 20m does exhibit gain over a
> 33 ft. dipole used on 20m by almost 2 dB.
> . . .

Most people can't or don't rotate a 66 foot dipole, and it has that much gain over a dipole half the length only in two specific directions. It has a gain of one dB or more over the shorter dipole only over 60 of the 360 degrees of the compass; and for 280 out of 360 degrees, it has *less* gain than the shorter dipole -- in fact as much as 14 dB less. For most people the longer dipole is a poor choice unless there's a specific narrow direction you want to favor at the expense of most other directions.

You lose a lot of information when you reduce an antenna pattern to a single "gain" number, just as you do in reducing complex data to an average. Keep in mind the statistician who drowned while crossing a creek whose average depth was only three feet.

Roy Lewallen, W7EL

844. Delta loop with feedlne at top and matching network at bottom?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 05:45:42 UTC
From: denton <denton@oregontrail.net>
Message-ID: <11akuk330mgdce7@corp.supernews.com>
Source record: 75360

Hi all....
I am thinking of making an 80 meter delta loop, fed at the top with coax
with a matching network at the bottom for 80 thru 10 meters.
Am wondering if this is feasable....any ideas?

845. Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 06:39:12 UTC
From: William Taylor <zach56@bellsouth.net>
Message-ID: <8o1la1p6po3nrbd24b047dfnjpbn2fo0a3@4ax.com>
Source record: 75361

http://www.hamuniverse.com/supernvis.html

The claim is that a dipole 7 feet off the ground has
a 10db gain over a G5RV at 50 feet.

Is that possible, or hype?

846. model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 11:13:57 UTC
From: ml <m@di.net>
Message-ID: <m-F01959.07135311062005@news.verizon.net>
Source record: 75362

Hi
'
Ihave sgc 237 going into about 5ft of ladder line (mounted at base of mast) to a horiz ctr feed dipole
'
it measures about 20ft 7" rf 'hot' side and 33' 7" rf gnd side

I am only haveing a mac, and never used any modeling software, can someone help me out, and given the above data what are the

assumptions or pro's /cons' that would be expected at these dimensions? (aside from the obv being it's kinda short)

The tuner will tune it all bands 6m to 160m my max swr is 1.5 and usually is 1.2

my goal is to learn all about where i am /or not resonant , giving harmonice or volt/vs currents etc (or perhaps that dosn't apply w/a antenna mounted tuner)

Seems i also give a bit of tvi on 20m broadcast and a bit on 80m to the direct tv

might just be rf overload however i'd like in general to learn about my antenna and what the numbers mean

any help is greatly appreciated, perhaps i can use that info if my antenna is at a really odd/bad length i could tweek it to make it better

thou i don't have much space left

thanks

847. Amateur Radio Website

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 11:45:41 UTC
From: Paul Blackmore <blackmore@ns.sympatico.ca>
Message-ID: <z9Aqe.19284$Nd3.922375@news20.bellglobal.com>
Source record: 75363

If you would like, check out the message board here:

http://www.ve1xyz.net/rag_chew/

Thanks in advance.

--
Paul
VE1XYZ
http://www.ve1xyz.net

848. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:34:34 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <16cea$42aae86e$97d55d24$12745@ALLTEL.NET>
Source record: 75364
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

I will have to take the time to consult with my Guru.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Bkkqe.39$Id5.1436742@news.sisna.com...
> ... I won't hold with any religion which recognizes time... I am a time
> atheist...
>
> ... do seventh-day-buddists recognize time?
>
> We have a terrorist cell now which is planning the suicide bombing of
> WWV!!! Fort Collins Colorado--HERE WE COME! <evil
> heheheheheeeeeeeeeeeeeeeeee!>
>
> Warmest regards,
> John

849. Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:36:53 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42aae953_2@newsfeed.slurp.net>
Source record: 75365

Following below are some thoughts of mine in response to an email sent to me.

There are some good engineers reading this NG, and I am asking for comments on what I wrote -- corrections where seen necessary, and any other thoughts.

Thanks.

RF

+ + + + +

----- Original Message -----
> The term "accept power" is interesting. To me, it's just a measure
> of the input impedance of the antenna. If the resistance (radiation
> plus loss resistance) is zero, you're not going to get it to absorb
> power no matter what you do.

Yes. And the input conditions depend on the ability of the radiator to generate EM fields. No current can enter and "flow through" a radiator if it doesn't have some place to go. If a radiator is not electrically long enough to allow differential current to exist along its length, it cannot generate EM fields. It is the di/dt along the radiator length that generates those fields.

Adding a matching network at the antenna input doesn't change the instrinsic ability of an antenna to radiate. That is determined by the factors described in the paragraph above. A matching network can permit the tx to increase its rated, safe output power while driving that poor antenna, but any extra power available at the antenna input because of that will be subject to the same poor radiation efficiency as if the matcher wasn't used. And much of any added power from the tx may get dissipated in lossy output system components other than the antenna, rather than being radiated. The antenna itself will still have the same directivity/gain that it had before the matching network was added.

Improving the ability of a poor antenna to generate EM fields per unit of source power is possible in a limited way only by increasing its electrical length. "Capacity hats" and inductances incorporated into the radiating structure can be used, as examples. This also raises the antenna radiation resistance and reduces the reactance at the antenna input -- making it easier to match into, and reducing system losses.

> Someone gave an example of a pager antenna or something that had a
> rated gain that was below isotropic. It'd be interesting to see where the
> losses were.

This is covered in my comments above, I believe.

//

850. Re: Determining SWR and Transmission Line Losses

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:37:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aaea0f$1_1@spool9-west.superfeed.net>
Source record: 75366

Roy Lewallen wrote:
> Most people can't or don't rotate a 66 foot dipole, and it has that much
> gain over a dipole half the length only in two specific directions.

And one of those directions is straight toward Arizona where
most of my old Intel ham buddies are. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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851. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:44:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d39db$42aaeab7$97d55d24$29805@ALLTEL.NET>
Source record: 75367

Richard, an open 1/4 in parallel with the feed point would do the trick.
Your shorted quarter will not be seen at Fo.
A shorted 1/2 wave would.

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20867-42A9EACC-108@storefull-3252.bay.webtv.net...
> 1/4-wave short-circuit stubs. Impedance should be high for 99 Mhz and
> lower for other frequencies. For a folded dipole, you might try to use
> one, 1/4-wave short-circuit stub and locate it in the middle of the side
> of the dipole opposite the feedpoint. This can all be made of 300-ohm TV
> twinlead if desired.

852. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:53:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aaede4$1_2@spool9-west.superfeed.net>
Source record: 75368

William Taylor wrote:

> http://www.hamuniverse.com/supernvis.html
>
> The claim is that a dipole 7 feet off the ground has
> a 10db gain over a G5RV at 50 feet.
>
> Is that possible, or hype?

It's could be true for 30m or 10m. Certainly not true
for the bands for which the G5RV was originally
intended namely 80m, 40m, and 20m. 12m comes as a
bonus.

You can make a G5RV just about as good as a dipole
on all HF bands.
0'-16' 20'
xmtr---coax---+---LLLS---+---450 ohm LL---+-102' dipole

The key is the LLLS, ladder-line length selector that
allows selection of 0'-16' in increments of one foot.
It requires four 4PDT relays, like the Omron LY4.
The relays are controlled from the operating position
but auto-switching would be easy to implement with a
directional coupler and a couple of op-amps. The
largest loop of ladder-line is only 2.5' in diameter.
--
73, Cecil http://www.qsl.net/w5dxp

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853. Re: model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:58:41 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aaeeff$1_1@spool9-west.superfeed.net>
Source record: 75369

ml wrote:
> Ihave sgc 237 going into about 5ft of ladder line (mounted at base of
> mast) to a horiz ctr feed dipole
> '
> it measures about 20ft 7" rf 'hot' side and 33' 7" rf gnd side

You have reasonable feedpoint impedances for 30m-10m
that the tuner should be able to match. Below 8.6 MHz,
the mismatch starts to climb. It's not bad on 40m but
very bad on 80m. So you have a reasonable setup for
40m-10m, pretty poor for 80m.
--
73, Cecil http://www.qsl.net/w5dxp

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854. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 13:59:52 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2a4d4$42aaee5c$97d55d24$12010@ALLTEL.NET>
Source record: 75370

Anecdotal evidence. First note he says 160 meter G5RV, one could assume he has doubled the size to 204 feet to meet this claim. Run a 204 foot dipole through EZNEC on 40 and you can see why the claims may be valid in some directions.

"William Taylor" <zach56@bellsouth.net> wrote in message news:8o1la1p6po3nrbd24b047dfnjpbn2fo0a3@4ax.com...
> http://www.hamuniverse.com/supernvis.html
>
> The claim is that a dipole 7 feet off the ground has
> a 10db gain over a G5RV at 50 feet.
>
> Is that possible, or hype?
>

855. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 14:18:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aaf39a$1_2@spool9-west.superfeed.net>
Source record: 75371

Richard Fry wrote:

> ... I am asking for comments on what I wrote -- ...

Comment: good stuff, and a couple of additional comments.

>> The term "accept power" is interesting. To me, it's just a measure
>> of the input impedance of the antenna. If the resistance (radiation
>> plus loss resistance) is zero, you're not going to get it to absorb
>> power no matter what you do.
>
> Yes. And the input conditions depend on the ability of the radiator to
> generate EM fields. No current can enter and "flow through" a radiator if
> it doesn't have some place to go. If a radiator is not electrically long
> enough to allow differential current to exist along its length, it cannot
> generate EM fields. It is the di/dt along the radiator length that
> generates those fields.
>
> Adding a matching network at the antenna input doesn't change the
> instrinsic
> ability of an antenna to radiate. That is determined by the factors
> described in the paragraph above. A matching network can permit the tx to
> increase its rated, safe output power while driving that poor antenna, but
> any extra power available at the antenna input because of that will be
> subject to the same poor radiation efficiency as if the matcher wasn't
> used.
> And much of any added power from the tx may get dissipated in lossy output
> system components other than the antenna, rather than being radiated.

The feedline has a certain efficiency. A matching network at the antenna
has a certain efficiency. If the matching network at the antenna is much
more efficient than the feedline, then it may be a reasonable solution.
An SGC-230 tuner mounted at the base of a 22 foot vertical makes a
reasonable antenna for 40m-10m operation. Feeding that same antenna
through coax from an SGC-230 in the shack makes for a pretty poor
antenna on most bands except 30m. Same antenna, same tuner, different
configuration = wildly different results.

> The
> antenna itself will still have the same directivity/gain that it had before
> the matching network was added.

Yes, but the SGC-230 at the base of the antenna may be operating at
50% efficiency while, if you moved the tuner back to the shack, the
feedline might be operating at 10% efficiency. The choice is clear
(if there are no thieves around. :-)

> Improving the ability of a poor antenna to generate EM fields per unit of
> source power is possible in a limited way only by increasing its electrical
> length. "Capacity hats" and inductances incorporated into the radiating
> structure can be used, as examples. This also raises the antenna radiation
> resistance and reduces the reactance at the antenna input -- making it
> easier to match into, and reducing system losses.
>
>> Someone gave an example of a pager antenna or something that had a
>> rated gain that was below isotropic. It'd be interesting to see where the
>> losses were.
>
> This is covered in my comments above, I believe.

--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

856. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 14:26:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aaf571$1_2@spool9-west.superfeed.net>
Source record: 75372

Fred W4JLE wrote:

> Anecdotal evidence. First note he says 160 meter G5RV, one could assume he
> has doubled the size to 204 feet to meet this claim. Run a 204 foot dipole
> through EZNEC on 40 and you can see why the claims may be valid in some
> directions.

I didn't look at it but just noticed 'nvis' in the title.
Of course, a dipole at 7 feet will have near-vertical gain
over a G5RV at 50 feet. Near-vertical gain is NOT what the
majority of hams desire. Near-vertical gain is the antithesis
of DX.

> "William Taylor" <zach56@bellsouth.net> wrote in message
> news:8o1la1p6po3nrbd24b047dfnjpbn2fo0a3@4ax.com...
>
>>http://www.hamuniverse.com/supernvis.html
>>
>>The claim is that a dipole 7 feet off the ground has
>>a 10db gain over a G5RV at 50 feet.
>>
>>Is that possible, or hype?

--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

857. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 15:16:39 UTC
From: Larry <larryw@holbrookmasons.org>
Message-ID: <3h0df3Fej910U4@individual.net>
Source record: 75373

ml wrote:
> second
>
> I have a arrow 2/440 j pole works great---- it dosn't have any radials
> hanging off naturally, so since basically just the center conductor is
> connected would you suspect my coax shield is 'part of the antenna'
> radiating alot of stuff??
>
> (course the shield does attach to the bottom mounting plate of the
> antenna but i wasn't counting that

In the typical J-pole antenna, the shield connects to the long element
and the center to the stub. I don't know your antenna in particular,
but I would suspect this is the case and don't believe it is considered
a radiating element.

858. FA: 5 SMA Male to SMA Male RG223/U Cable Assemblies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 15:30:13 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <jrDqe.85451$Wr.43084@fed1read04>
Source record: 75374

Please see
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=7285&item=7522157085&rd=1&ssPageNam
e=WDVW
all are brand new, high quality, and made in USA. RG223/U is double
shielded, 50 ohm mil spec coax.

For additional info email sales@aaarfproducts.com for a detailed catalog or
visit www.aaarfproducts.com

859. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 17:24:34 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <m7Fqe.27039$J12.9254@newssvr14.news.prodigy.com>
Source record: 75225

Richard Fry wrote:
> Following below are some thoughts of mine in response to an email sent
> to me.
>
> There are some good engineers reading this NG, and I am asking for
> comments on what I wrote -- corrections where seen necessary, and any
> other thoughts.
>
> Thanks.
>
> RF
>
> + + + + +
>
> ----- Original Message -----
>
>> The term "accept power" is interesting. To me, it's just a measure
>> of the input impedance of the antenna. If the resistance (radiation
>> plus loss resistance) is zero, you're not going to get it to absorb
>> power no matter what you do.
>
> ------------
>
> Yes. And the input conditions depend on the ability of the radiator to
> generate EM fields. No current can enter and "flow through" a radiator if
> it doesn't have some place to go. If a radiator is not electrically long
> enough to allow differential current to exist along its length, it cannot
> generate EM fields. It is the di/dt along the radiator length that
> generates those fields.
>

Actually, you can charge up anything to produce a field. If the field is
static, though, it won't radiate. Also, short radiators work just fine
if you excite them with frequencies whose wavelengths are on the same
order of magnitude. Finally, if you can keep the losses down, radiators
that are small compared to a wavelength of the frequency you want to
radiate, work well, too, though you may have to be satisfied
with narrow bandwidths and make heroic efforts to feed them. Finally,
you might be more accurate if you substituted 'dq/dt' with 'di/dt',
but even that won't guarantee radiation: transmission lines have
plenty of charge acceleration, but are designed specifically to
not radiate. You might want to rethink your ideas. Try not to
be so reductionist. You don't want to end up like Cecil.
73,

Tom Donaly, KA6RUH

> Adding a matching network at the antenna input doesn't change the
> instrinsic
> ability of an antenna to radiate. That is determined by the factors
> described in the paragraph above. A matching network can permit the tx to
> increase its rated, safe output power while driving that poor antenna, but
> any extra power available at the antenna input because of that will be
> subject to the same poor radiation efficiency as if the matcher wasn't
> used.
> And much of any added power from the tx may get dissipated in lossy output
> system components other than the antenna, rather than being radiated. The
> antenna itself will still have the same directivity/gain that it had before
> the matching network was added.
>
> Improving the ability of a poor antenna to generate EM fields per unit of
> source power is possible in a limited way only by increasing its electrical
> length. "Capacity hats" and inductances incorporated into the radiating
> structure can be used, as examples. This also raises the antenna radiation
> resistance and reduces the reactance at the antenna input -- making it
> easier to match into, and reducing system losses.
>
>> Someone gave an example of a pager antenna or something that had a
>> rated gain that was below isotropic. It'd be interesting to see where the
>> losses were.
>
>
> This is covered in my comments above, I believe.
>
> //
>
>

860. Antenna Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 17:42:44 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11am8krcbupove3@corp.supernews.com>
Source record: 75226
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

We think we know that the impedance at the center of a thin wire antenna in free space is something on the order of 70 ohms at resonance (quarter-wave ears with the end fringing factor thrown in).

We think we know that the VSWR bandwidth increases as that thick wire becomes fat. We think we know that the end fringing factor goes up as the antenna gets fatter.

What I'm suspecting the further I look into it is that the NEGATIVE image of that dipole antenna (a slot cut into an infinite sheet of conductor fed at the center across the slot) is also resonant, but the impedance is going to be something on the order of 350 ohms. Jasik shows a method of off-center feeding that reduces the impedance to something on the order of 100 ohms.

What is NOT mentioned is the aforementioned VSWR "goodness factor" going up with a fatter (wider?) slot.

Is there a better reference to slot antennas than Jasik?

Jim

861. Re: AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 17:47:26 UTC
From: HAARP Microwave Beam <haarp-microwave@lycos.com>
Message-ID: <1118512046.885753.270370@o13g2000cwo.googlegroups.com>
Source record: 75227
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

Israeli couple working for Mossad subvert global computer fire walls
....

ZNET

MICHAEL HAEPHRATI --- ENEMY OF THE STATES OF THE UNION

NO. # ENEMY OF THE U.S.A -- Michael Haephrati -- [not Lawrence Franklin, who pee'd in the face of the Pentagon and got away laughing, but Michael Haephrati, 41, who had undergone a bitter divorce from Raziel Jackont's daughter eight years earlier -- and who, according to Jackont, was the model for a shady character in the novel, and who is at the heart of darkness of this espionage case against all main U.S. computer companies].

Interpol and FBI and Mossad investigators now admit that Haephrati was involved in a much larger criminal conspiracy.

In a statement released over the weekend, police said they had discovered a Trojan horse on Jackont's computer that they were able to trace to an unnamed source. The Trojan allowed the person to control the computer, make changes to its programs, monitor everything it contained and raid it for information -- all without leaving any hint of the Trojan's existence. Investigators also discovered that the same person had sold the software to three of Israel's largest private investigation companies, which allegedly used it to illegally collect data for their corporate clients and undermine US money transfers and military security.

Hundreds of companies -- including many U.S. and European firms -- have been spied upon without realizing it.

Last week's arrests included an executive of a major satellite television company, suspected of spying on a cable television rival, and officials of two cell phone companies, suspected of eavesdropping on a mutual rival. Also accused in the scheme was the Israeli importer of Volvos and Hondas, suspected of spying on the company that imports Audis and Volkswagens.

The first of several police statements did not name the alleged author of the scheme but said two Israelis had been arrested in London for allegedly manufacturing and distributing the Trojan. Scotland Yard confirmed that Haephrati and his wife, Ruth Brier-Haephrati, 28, were being held for extradition to Israel for "unauthorized modification of the contents of a computer," according to the Associated Press. They have made no public comment on the charge.

Security experts say they've discovered a Trojan horse that records e-banking user details and Web surfing habits.

Antivirus company Sophos is warning that the Banker-AJ Trojan is targeting online customers of British banks such as Abbey, Barclays, Egg, HSBC, Lloyds TSB, Nationwide and NatWest. The Trojan affects computers running Microsoft Windows.

The company said that once installed, the Trojan waits for users to visit their online banking Web sites, then captures passwords and takes screenshots of the session. The information is relayed to the hackers behind the ploy, who use the data to steal money and highly classified corporate and military information.

Last week, police arrested 16 people in Israel, including senior executives of some of the country's leading high-tech companies and the private investigators they had allegedly employed. At the same time, British authorities, acting on an Israeli request, arrested the former son-in-law and his wife in London and are holding them pending an extradition hearing this week.

Israeli newspapers, which had been alerted to the case last week but were prohibited from publishing details until the roundup was completed over the weekend, characterized it as the biggest case of industrial espionage in the country's history. "No one remembers a case like this in Israel -- an affair with such scope of investigation involving technology at this high level," said Chief Superintendent Rafi Levy, spokesman for the national police force.

"It's the next generation of phishing attacks," said Graham Cluley, senior technology consultant for Sophos. "These rely on people going to real, legitimate sites. Once the Trojan determines that you've gone there, it starts taking keystroke logs and snaps shots of machines and sends it back to hackers."

Phishing scammers typically set up bogus Web sites to capture victims' personal information. They send e-mails that appear to come from trusted companies to lure people to the fake sites, where victims are asked to enter information such as credit card data. Attacks frequently target bank customers, but eBay and Amazon.com have also been recent targets.

Previous Next Barclays Bank said it had seen the technique of using legitimate sites before. A representative for the company said, "This type of Trojan is something (we) have been aware of for some time. We are working with (the) industry to identify the next steps to help combat fraud and are interested in educating customers."

Sophos also said it had seen a similar Trojan, Tofger, a few months ago, but the technique had mainly been used in Brazil.

"We did see another one a few months ago," Cluley added. "Some of the Brazilian ones just wait for the user to look at a Web site with the word 'bank' in (it), but this one specifically targets many well-known

U.K. banks, and that makes it notable."

Lawrence ben' Franklin wrote:
> Why is the WJC [World Jewish Congress] which is affiliated with
> Seagram's Liquors Global, in Toronto, not making an outcry over such an
> abuse of the Americans and their government?
>
> Haven't we helped the Canadians a lot and the refugees from Hitler's
> odious crimes, too?
>
> Whoever you are Golan, god bless you!!!
>
>
> Thanks for trying to come to the aid of our nation.
>
> AIPAC sucks. They are unsavory and sneaky and untrustworthy and
> unworthy of even our contempt.
>
> Put them on the blacklist, one and all.
>
> 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> Watergate and record phone sex sessions between her and President Bill
> Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> their conversations were being taped and ended the affair. At the same
> time, the FBI's hunt for "Mega" [top secret Mossad agent planted high
> in US government] is called off.
>
> 2001 It is discovered that US drug agents' communications have been
> penetrated. Suspicion falls on two companies, AMDOCS and Comverse
> Infosys, both owned by Israelis. AMDOCS generates billing data for most
> US phone companies and is able to provide detailed logs of who is
> talking to whom. Comverse Infosys builds the tapping equipment used by
> law enforcement to eavesdrop on all American telephone calls, but
> suspicion forms that Comverse, which gets half of its research and
> development budget from the Israeli government, has built a back door
> into the system that is being exploited by Israeli intelligence and
> that the information gleaned on US drug interdiction efforts is finding
> its way to drug smugglers. The investigation by the FBI leads to the
> exposure of the largest foreign spy ring ever uncovered inside the
> United States, operated by Israel. Half of the suspected spies have
> been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> dancing and cheering while the World Trade Towers collapse. Supposedly
> employed by Urban Moving Systems, the Israelis are caught with multiple
> passports and a lot of cash. Two of them are later revealed to be
> Mossad. As witness reports track the activity of the Israelis, it
> emerges that they were seen at Liberty Park at the time of the first
> impact, suggesting a foreknowledge of what was to come. The Israelis
> are interrogated, and then eventually sent back to Israel. The owner of
> the moving company used as a cover by the Mossad agents abandons his
> business and flees to Israel. The United States Government then

> classifies all of the evidence related to the Israeli agents and their
> connections to 9-11. All of this is reported to the public via a four
> part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> primarily AIPAC, forces Fox News to remove the story from their
> website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company
> with offices just a few blocks from the World Trade Towers, receives an
> advance warning via the internet. The manager of the New York Office
> provides the FBI with the IP address of the sender of the message, but
> the FBI does not follow up.
>
> 2001 The FBI is investigating 5 Israeli moving companies as possible
> fronts for Israeli intelligence.
>
> ---
>
> The HAARP and the NIF are even more dangerous than AIPAC which just
> planted a few Mossad spies into the Pentagon and they sold the secrets
> stolen to Israeli high tech and EM weapons national industries there.
>
>
> AIPAC spies in the Pentagon and White House
> http://www.whatreallyhappened.com/motherofallscandals.html
>
> http://www.rense.com/general56/supreb.htm
> Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon
> Affairs
> http://www.rense.com/general57/linkcon.htm
>
>
> Yes. NIF and HAARP are run by the same Pentagon group.
> ---------------------
>
> Israeli Spying:
> The Mother of all Scandals
> Once again, Israel has been caught with spies at the highest levels of
> the US Government.
>
> At the heart of the investigation are two people who work at The
> American Israel Public Affairs Committee (AIPAC), a powerful pro-Israel
> lobby in Washington. The FBI investigation, headed up by Dave Szady,
> has involved wiretaps, undercover surveillance and photography that CBS
> News was told document the passing of classified information from the
> mole, to the men at AIPAC, and on to the Israelis.
>
> CBS sources say that last year the suspected spy, described as a
> trusted analyst at the Pentagon, turned over a presidential directive
> on U.S. policy toward Iran while it was, "in the draft phase when U.S.
> policy-makers were still debating the policy." This put the Israelis,
> according to one source, "inside the decision-making loop" so they
> could "try to influence the outcome." [CBS News]

>
> Once again Israel denies wrongdoing, or faced with incontrovertible
> evidence (in this case one of the spies has reportedly cooperated with
> the FBI) dismisses the spying with the claim that such spying is
> harmless, because Israel and the United States are such good friends.
>
> Well, let us take a closer look at that idea of "harmless
> espionage" by recalling Israel's most famous failed spy, Jonathan
> Pollard.
>
> Jonathan Pollard is an American of Jewish descent, born in Galveston
> Texas, who established a career as an intelligence analyst for the US
> Navy. There have been many theories offered as to why Pollard decided
> to betray his country of birth to the Jewish state, but that Pollard
> did betray his country of birth to Israel is beyond all doubt.
> Pollard's defense was that he did not spy so much against the United
> States, only that he spied for Israel, sending them documents that in
> his opinion the US should have shared with Israel anyway.
>
> That it was never Pollards job to decide what documents Israel should
> have was apparently irrelevant. Pollard arrogated that authority to
> himself. From his position of trust within the US Navy, Pollard
> delivered over 1000 classified documents to Israel for which he was
> well paid. Included in those documents were the names of over 150 US
> agents in the Mideast, who were eventually "turned" into agents for
> Israel.
>
> But by far the most egregious damage done by Pollard was to steal
> classified documents relating to the US Nuclear Deterrent relative to
> the USSR and send them to Israel. According to sources in the US State
> Department, Israel then turned around and traded those stolen nuclear
> secrets to the USSR in exchange for increased emigration quotas from
> the USSR to Israel. Other information that found its way from the US to
> Israel to the USSR resulted in the loss of American agents operating
> inside the USSR. Casper Weinberger, in his affidavit opposing a reduced
> sentence for Pollard, described the damage done to the United States
> thus, "[It is] difficult to conceive of a greater harm to national
> security than that caused by... Pollard's treasonous behavior."
>
> This should end the suggestion that Israel's spies are harmless. They
> are not. The United States' nuclear deterrent cost an estimated five
> trillion taxpayer dollars during the 50s and 60s to build and maintain,
> and less than $100,000 for Pollard to undermine. Israel waited 13 years
> to admit Pollard had been spying for them, and now lobbies for his
> release, having granted him Israeli citizenship.
>
> Pollard is hardly the only Israeli spy operating in the United States.
> He just had the misfortune to get caught. Here are just a few examples
> of the Israeli spy operations that have been detected.
>

> 1947. Information collected by the ADL in its spy operations on US
> citizens is used by the House Select Committee on Unamerican
> Activities. Subcommittee Chair Clare Hoffman dismisses the ADL's
> reports on suspected communists as "hearsay."
>
> 1950 John Davitt, former chief of the Justice Department's internal
> security section notes that the Israeli intelligence service is the
> second most active in the United States after the Soviets.
>
> 1954 A hidden microphone planted by the Israelis is discovered in the
> Office of the US Ambassador in Tel Aviv.
>
> 1956 Telephone taps are found connected to two telephones in the
> residence of the US military attaché in Tel Aviv.
>
> 1954 "The Lavon Affair". Israeli agents recruit Egyptian citizens of
> Jewish descent to bomb Western targets in Egypt, and plant evidence to
> frame Arabs, in an apparent attempt to upset US-Egyptian relations.
> Israeli defense minister Pinchas Lavon is eventually removed from
> office, though many think real responsibility lay with David
> Ben-Gurion.
>
> 1965 Israel apparently illegally obtains enriched uranium from NUMEC
> Corporation. (Washington Post, 6/5/86, Charles R. Babcock, "US an
> Intelligence Target of the Israelis, Officials Say.")
>
> 1967 Israel attacks the USS Liberty, an intelligence gathering vessel
> flying a US flag, killing 34 crew members. See "Assault on the
> Liberty," by James M. Ennes, Jr. (Random House). In 2004, Captain Ward
> Boston, Senior Legal Counsel for the Navy's Court of Inquiry into the
> attack swears under oath that President Lyndon Johnson ordered the
> investigation to conclude accident, even though the evidence indicates
> the attack was deliberate. Given the use by Israel of unmarked boats
> and planes, and the machine-gunning of USS Liberty's lifeboats, the
> most likely explanation is that USS Liberty was to be sunk with all
> hands, with evidence left to frame Egypt for the sinking. This would
> have dragged the US into the war on Israel's side.
>
> 1970 While working for Senator Henry "Scoop" Jackson, Richard Perle
> is caught by the FBI giving classified information to Israel. Nothing
> is done.
>
> 1978, Stephen Bryen, then a Senate Foreign Relations Committee staffer,
> is overheard in a DC hotel offering confidential documents to top
> Israeli military officials. Bryen obtains a lawyer, Nathan Lewin, and
> the case heads for the grand jury, but is mysteriously dropped. Bryen
> later goes to work for Richard Perle.
>
> 1979 Shin Beth [the Israeli internal security agency] tries to
> penetrate the US Consulate General in Jerusalem through a "Honey

> Trap", using a clerical employee who was having an affair with a
> Jerusalem girl.
>
> 1985 The New York Times reports the FBI is aware of at least a dozen
> incidents in which American officials transferred classified
> information to the Israelis, quoting [former Assistant Director of the
> F.B.I.] Mr. [Raymond] Wannal. The Justice Department does not
> prosecute.
>
> 1985 Richard Smyth, the owner of MILCO, is indicted on charges of
> smuggling nuclear timing devices to Israel (Washington Post, 10/31/86).
>
>
> 1987 April 24 Wall Street Journal headline: "Role of Israel in
> Iran-Contra Scandal Won't be Explored in Detail by Panels"
>
> 1992 The Wall Street Journal reports that Israeli agents apparently
> tried to steal Recon Optical Inc's top-secret airborne spy-camera
> system.
>
> 1992 Stephen Bryen, caught offering confidential documents to Israel in
> 1978, is serving on board of the pro-Israeli Jewish Institute for
> National Security Affairs while continuing as a paid consultant -- with
> security clearance -- on exports of sensitive US technology.
>
> 1992 "The Samson Option," by Seymour M. Hersh reports, "Illicitly
> obtained intelligence was flying so voluminously from LAKAM into
> Israeli intelligence that a special code name, JUMBO, was added to the
> security markings already on the documents. There were strict orders,
> Ari Ben-Menashe recalled: "Anything marked JUMBO was not supposed to be
> discussed with your American counterparts."
>
> 1993. The ADL is caught operating a massive spying operation on critics
> of Israel, Arab-Americans, the San Francisco Labor Council, ILWU Local
> 10, Oakland Educational Association, NAACP, Irish Northern Aid,
> International Indian Treaty Council, the Asian Law Caucus and the San
> Francisco police. Data collected was sent to Israel and in some cases
> to South Africa. Pressure from Jewish organizations forces the city to
> drop the criminal case, but the ADL settles a civil lawsuit for an
> undisclosed sum of cash.
>
> 1995 The Defense Investigative Service circulates a memo warning US
> military contractors that "Israel aggressively collects [US] military
> and industrial technology." The report stated that Israel obtains
> information using "ethnic targeting, financial aggrandizement, and
> identification and exploitation of individual frailties" of US
> citizens.
>
> 1996 A General Accounting Office report "Defense Industrial Security:
> Weaknesses in US Security Arrangements With Foreign-Owned Defense

> Contractors" found that according to intelligence sources "Country A"
> (identified by intelligence sources as Israel, Washington Times,
> 2/22/96) "conducts the most aggressive espionage operation against the
> United States of any US ally." The Jerusalem Post (8/30/96) quoted the
> report, "Classified military information and sensitive military
> technologies are high-priority targets for the intelligence agencies of
> this country." The report described "An espionage operation run by the
> intelligence organization responsible for collecting scientific and
> technologic information for [Israel] paid a US government employee to
> obtain US classified military intelligence documents." The Washington
> Report on Middle East Affairs (Shawn L. Twing, April 1996) noted that
> this was "a reference to the 1985 arrest of Jonathan Pollard, a
> civilian US naval intelligence analyst who provided Israel's LAKAM
> [Office of Special Tasks] espionage agency an estimated 800,000 pages
> of classified US intelligence information."
>
> The GAO report also noted that "Several citizens of [Israel] were
> caught in the United States stealing sensitive technology used in
> manufacturing artillery gun tubes."
>
> 1996 An Office of Naval Intelligence document, "Worldwide Challenges to
> Naval Strike Warfare" reported that "US technology has been acquired
> [by China] through Israel in the form of the Lavi fighter and possibly
> SAM [surface-to-air] missile technology." Jane's Defense Weekly
> (2/28/96) noted that "until now, the intelligence community has not
> openly confirmed the transfer of US technology [via Israel] to China."
> The report noted that this "represents a dramatic step forward for
> Chinese military aviation." (Flight International, 3/13/96)
>
> 1997 An Army mechanical engineer, David A. Tenenbaum, "inadvertently"
> gives classified military information on missile systems and armored
> vehicles to Israeli officials (New York Times, 2/20/97).
>
> 1997 The Washington Post reports US intelligence has intercepted a
> conversation in which two Israeli officials had discussed the
> possibility of getting a confidential letter that then-Secretary of
> State Warren Christopher had written to Palestinian leader Yasir
> Arafat. One of the Israelis, identified only as "Dov", had
> commented that they may get the letter from "Mega", the code name for
> Israel's top agent inside the United States.
>
> 1997 US ambassador to Israel, Martin Indyk, complains privately to the
> Israeli government about heavy-handed surveillance by Israeli
> intelligence agents.
>
> 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> Watergate and record phone sex sessions between her and President Bill
> Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> their conversations were being taped and ended the affair. At the same
> time, the FBI's hunt for "Mega" is called off.

>
> 2001 It is discovered that US drug agents' communications have been
> penetrated. Suspicion falls on two companies, AMDOCS and Comverse
> Infosys, both owned by Israelis. AMDOCS generates billing data for most
> US phone companies and is able to provide detailed logs of who is
> talking to whom. Comverse Infosys builds the tapping equipment used by
> law enforcement to eavesdrop on all American telephone calls, but
> suspicion forms that Comverse, which gets half of its research and
> development budget from the Israeli government, has built a back door
> into the system that is being exploited by Israeli intelligence and
> that the information gleaned on US drug interdiction efforts is finding
> its way to drug smugglers. The investigation by the FBI leads to the
> exposure of the largest foreign spy ring ever uncovered inside the
> United States, operated by Israel. Half of the suspected spies have
> been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> dancing and cheering while the World Trade Towers collapse. Supposedly
> employed by Urban Moving Systems, the Israelis are caught with multiple
> passports and a lot of cash. Two of them are later revealed to be
> Mossad. As witness reports track the activity of the Israelis, it
> emerges that they were seen at Liberty Park at the time of the first
> impact, suggesting a foreknowledge of what was to come. The Israelis
> are interrogated, and then eventually sent back to Israel. The owner of
> the moving company used as a cover by the Mossad agents abandons his
> business and flees to Israel. The United States Government then
> classifies all of the evidence related to the Israeli agents and their
> connections to 9-11. All of this is reported to the public via a four
> part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> primarily AIPAC, forces Fox News to remove the story from their
> website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company
> with offices just a few blocks from the World Trade Towers, receives an
> advance warning via the internet. The manager of the New York Office
> provides the FBI with the IP address of the sender of the message, but
> the FBI does not follow up.
>
> 2001 The FBI is investigating 5 Israeli moving companies as possible
> fronts for Israeli intelligence.
>
> 2001 JDL's Irv Rubin arrested for planning to bomb a US Congressman.
> He dies before he can be brought to trial.
>
> 2002 The DEA issues a report that Israeli spies, posing as art
> students, have been trying to penetrate US Government offices.
>
> 2002 police near the Whidbey Island Naval Air Station in southern
> Washington State stop a suspicious truck and detain two Israelis, one
> of whom is illegally in the United States. The two men were driving at
> high speed in a Ryder rental truck, which they claimed had been used to
> "deliver furniture." The next day, police discovered traces of TNT and
> RDX military-grade plastic explosives inside the passenger cabin and on
> the steering wheel of the vehicle. The FBI then announces that the

> tests that showed explosives were "false positived" by cigarette
> smoke, a claim test experts say is ridiculous. Based on an alibi
> provided by a woman, the case is closed and the Israelis are handed
> over to INS to be sent back to Israel. One week later, the woman who
> provided the alibi vanishes.
>
> 2003 The Police Chief of Cloudcroft stops a truck speeding through a
> school zone. The drivers turn out to be Israelis with expired
> passports. Claiming to be movers, the truck contains junk furniture and
> several boxes. The Israelis are handed over to immigration. The
> contents of the boxers are not revealed to the public.
>
> 2003 Israel deploys assassination squads into other countries,
> including the United States. The US Government does not protest.
>
> 2004 Police near the Nuclear Fuel Services plant in Tennessee stop a
> truck after a three mile chase, during which the driver throws a bottle
> containing a strange liquid from the cab. The drivers turn out to be
> Israelis using fake Ids. The FBI refuses to investigate and the
> Israelis are released.
>
> 2004 Two Israelis try to enter Kings Bay Naval Submarine Base, home to
> eight Trident submarines. The truck tests positive for explosives.
>
> This brings us to the present scandal. Two years into an investigation
> of AIPAC's possible role as a spy front for Israel, Larry Franklin, a
> mid-level Pentagon Analyst is observed by the FBI giving classified
> information to two officials of AIPAC suspected of being Israeli spies.
> AIPAC hires lawyer Nathan Lewin to handle their legal defense, the same
> lawyer who defended suspected Israeli spy Stephen Bryen in 1978.
>
> Larry Franklin worked in the Pentagon Office of Special Plans, run by
> Richard Perle, at the time Perle (who was caught giving classified
> information to Israel back in 1970) was insisting that Iraq was
> crawling with weapons of mass destruction requiring the United States
> to invade and conquer Iraq. There were no WMDs, of course, and Perle
> has dumped the blame for the "bad intelligence" on George Tenet.
> But what is known is that the Pentagon Office of Special Plans was
> coordinating with a similar group in Israel, in Ariel Sharon's
> office.
>
> With two suspected Israeli spies (at least) inside the office from
> which the lies that launched the war in Iraq originated, it appears
> that the people of the United States are the victims of a deadly hoax,
> a hoax that started a war.
>
> The leaking of the investigation of AIPAC to the media on August 28th,
> 2004 gave advance warning to other spies working with Franklin. The
> damage to the FBI's investigation was completed when United States
> Attorney General John Ashcroft ordered the FBI to stop all arrests in

> the case. Like the Stephen Bryen case and the hunt for "Mega", this
> latest spy scandal seems destined by officials who have their own
> secret allegiances to protect, barring a massive public outcry.
>
> The organization at the heart of the latest spy investigation, AIPAC,
> wields tremendous influence over the US Congress. Through its members
> and affiliated PACs, AIPAC directs a huge flow of campaign cash in
> favor of, and occasionally against, Senators and Representatives solely
> on the basis of their willingness to support Israel. As an example, in
> 2002, U.S. Rep. Artur Davis, D-Birmingham received so much help from
> pro-Israeli pacs that 76% of his campaign budget came from OUTSIDE the
> state of Alabama, mostly from New York.
>
> Let me repeat that. A Congressman AIPAC wanted elected received more
> money from pro-Israel groups outside his state than from his own
> constituents inside his state. Who is that Congressman going to be
> thinking of when he votes in Congress?
>
> So here is the mother of all scandals.
>
> For two years, the FBI has suspected AIPAC of spying for a foreign
> country, and for those two years (and for decades before) that group
> suspected of spying for Israel has been reshaping the US Congress for
> the benefit of a foreign government.
>
> And THAT is the mother of all scandals.
>
> Think about that as billions of your tax dollars flow to Israel while
> your roads and schools crumble and decay and services are cut.
>
> Think about that as the coffins come home with your loved ones inside.
>
> Think about that when you and a million of your fellow citizens march
> down the streets of America opposing wars built on lies and deceptions
> and wonder why the government just doesn't want to listen to you any
> more.
>
>
>
> ---
>
> See also: Is Israel Blackmailing America?

862. Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 18:22:42 UTC
From: mike <anonemouser@gmail.com>
Message-ID: <1118514162.175637.213400@g47g2000cwa.googlegroups.com>
Source record: 75228

Gentlemen,

I work for a student transportation company using UHF radio communications. While I have played around with CB radios several years ago I have no experience with UHF.

Our system operates on either of 2 channels near 470MHz. Channel 1 transmits via a repeater located in the hills a few miles away, while channel 2 is direct.

For most of the last school year we have operated on channel 2 as channel 1 wasn't working. A company recently came out (not following known company authorization proceedures), and apparently repaired a faulty repeater. Our company was charged about $185.00 for parts and over $600.00 for labor. The rate worked out to be $80.00 per hour over 7.5 hours. Not only does this seem a wee bit steep to me, but the communications are still poor on channel 1.

Assuming that the repeater is fine now, the problem seems to be more related to the individual busses. Over the course of time our mechanics have swapped-out radios, mics, and probably antennas as well. Given the nature of the problems and my previous (limited) experience with CB, my suspicion is that the antennas on the busses need to be tuned.

I used to tune my CB antennas with an SWR meter and get good results. I understand the basics enough to be able to do that and could probably teach our mechanic as well. However, since I have no experience with UHF I don't know if there's more to it with UHF over standard CB and if there is more equipment required than an SWR meter. I am just having a real difficult time paying $80.00 an hour for someone to do something I used to do quite easily.

Mike

863. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 18:26:24 UTC
From: Frank Benton <FMBENTON@earthlink.net>
Message-ID: <d8facg$o18$1@xuxa.iecc.com>
Source record: 75229
Cross-posted to: misc.consumers.house,rec.radio.amateur.antenna,rec.radio.broadcasting,sci.engr.television.broadcast

TRY WWW.KZQX,COM FOR RECEPTION TIPS. PLUS HEAR SOME GREAT MUSIC.
"butlercellars" <butlercellars@hotmail.com> wrote in message
news:d8a846$r6c$1@xuxa.iecc.com...
> Our local cable company, Comcast, doesn't carry FM radio signals;
> therefore,
> I'm trying to improve my FM reception on my home receiver. I've had
> separate
> VHF and UHF antennas up for HDTV several years. They work wonders for HD
> and
> even analog TV, but the FM element on the VHF yagi surprisingly doesn't
> pick
> up much. Part of my problem is that I'm on an east facing hillside in the
> foothills directly north of one major metro market area and directly west
> of
> another. Despite that, I don't understand why I can get decent TV
> reception
> but no FM.
>
> After limited success with a homebrew folded dipole, I picked up a high
> gain
> three element FM yagi. No matter where I seem to point it, I'm not getting
> any more signal strength than with the dipole on the back of the receiver.
> You'd think that aiming it east, southeast, or south towards all those
> transmitters would pull in something, but gain is very weak. However, if I
> point it northwest, at about 45 degrees up the hill behind me, I can
> actually pull in a few decent stations. Aiming the antenna in the opposite
> direction of the stations just seems contrary to logic. I understand that
> ground waves travel parallel to the earth, but could the signals be
> bouncing
> off the hillside too, acting like a huge reflector?
>
> The thing that really gets me is that I can get excellent reception on all
> stations in my car sitting in the driveway, and driving around. Therefore,
> I'm thinking of dumping the yagi and trying to find or build a vertically
> polarized omni antenna. My car antenna does happen to be mounted at about
> 45
> degrees. Any ideas on what might be going on, and how I might improve my
> reception? Any antenna designs and dimensions would be helpful. I guess
> worst case scenario is I can go down to the auto parts store, by a car
> antenna, and put it on my roof.
>
> Please help. Many thanks!
>

> -Bob
>
>

864. Re: Antenna Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 18:34:24 UTC
From: Dave <nospam@nowhere.com>
Message-ID: <42ab2eb0@212.67.96.135>
Source record: 75230
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

RST Engineering wrote:
> We think we know that the impedance at the center of a thin wire antenna in
> free space is something on the order of 70 ohms at resonance (quarter-wave
> ears with the end fringing factor thrown in).
>
> We think we know that the VSWR bandwidth increases as that thick wire
> becomes fat. We think we know that the end fringing factor goes up as the
> antenna gets fatter.
>
>
> What I'm suspecting the further I look into it is that the NEGATIVE image of
> that dipole antenna (a slot cut into an infinite sheet of conductor fed at
> the center across the slot) is also resonant, but the impedance is going to
> be something on the order of 350 ohms. Jasik shows a method of off-center
> feeding that reduces the impedance to something on the order of 100 ohms.
>
> What is NOT mentioned is the aforementioned VSWR "goodness factor" going up
> with a fatter (wider?) slot.
>
> Is there a better reference to slot antennas than Jasik?
>
> Jim
>
>
"Antennas" by John Kraus, second edition, McGraw Hill, 1988, (ISBN
0-07-100482-03) has a chapter on slot and similar antennas. It says the
impedance is about 500 Ohms, and so to feed with 50 Ohm coax you need to
feed well off centre (it suggests about lambda/20). If the slot is
vertical, the polarisation is horizontal. There are some journel
references.

865. Re: AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 18:35:21 UTC
From: Lawrence ben' Franklin <lawrence_ben_franklin@yahoo.com>
Message-ID: <1118514921.471388.240260@o13g2000cwo.googlegroups.com>
Source record: 75231
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

"HAARETZ WORLD JEWISH NEWS" CONFIRMS SUSPICIONS THAT CLASSIFIED DATA
SPY HAEPHRATI [TROJAN HORSE COOKIE/VIRUS/BUG] WORKED FOR MOSSAD.

When will the U.S. criminally charge AIPAC and Lawrence Franklin???

direct from Haaretz:

"Haephrati, 41, who studied computers, is described by relatives as
being unable to hold down a job. Once, while unemployed, he allegedly
told relatives he was working undercover for the Israeli security
forces."
http://www.haaretz.com/hasen/spages/581808.html

HAARP Microwave Beam wrote:
> Israeli couple working for Mossad subvert global computer fire walls
> ....
>
> ZNET
>
> MICHAEL HAEPHRATI --- ENEMY OF THE STATES OF THE UNION
>
> NO. # ENEMY OF THE U.S.A -- Michael Haephrati -- [not Lawrence
> Franklin, who pee'd in the face of the Pentagon and got away laughing,
> but Michael Haephrati, 41, who had undergone a bitter divorce from
> Raziel Jackont's daughter eight years earlier -- and who, according to
> Jackont, was the model for a shady character in the novel, and who is
> at the heart of darkness of this espionage case against all main U.S.
> computer companies].
>
> Interpol and FBI and Mossad investigators now admit that Haephrati was
> involved in a much larger criminal conspiracy.
>
> In a statement released over the weekend, police said they had
> discovered a Trojan horse on Jackont's computer that they were able to
> trace to an unnamed source. The Trojan allowed the person to control
> the computer, make changes to its programs, monitor everything it
> contained and raid it for information -- all without leaving any hint
> of the Trojan's existence. Investigators also discovered that the same
> person had sold the software to three of Israel's largest private
> investigation companies, which allegedly used it to illegally collect
> data for their corporate clients and undermine US money transfers and
> military security.
>
> Hundreds of companies -- including many U.S. and European firms -- have

> been spied upon without realizing it.
>
> Last week's arrests included an executive of a major satellite
> television company, suspected of spying on a cable television rival,
> and officials of two cell phone companies, suspected of eavesdropping
> on a mutual rival. Also accused in the scheme was the Israeli importer
> of Volvos and Hondas, suspected of spying on the company that imports
> Audis and Volkswagens.
>
> The first of several police statements did not name the alleged author
> of the scheme but said two Israelis had been arrested in London for
> allegedly manufacturing and distributing the Trojan. Scotland Yard
> confirmed that Haephrati and his wife, Ruth Brier-Haephrati, 28, were
> being held for extradition to Israel for "unauthorized modification of
> the contents of a computer," according to the Associated Press. They
> have made no public comment on the charge.
>
> Security experts say they've discovered a Trojan horse that records
> e-banking user details and Web surfing habits.
>
> Antivirus company Sophos is warning that the Banker-AJ Trojan is
> targeting online customers of British banks such as Abbey, Barclays,
> Egg, HSBC, Lloyds TSB, Nationwide and NatWest. The Trojan affects
> computers running Microsoft Windows.
>
> The company said that once installed, the Trojan waits for users to
> visit their online banking Web sites, then captures passwords and takes
> screenshots of the session. The information is relayed to the hackers
> behind the ploy, who use the data to steal money and highly classified
> corporate and military information.
>
> Last week, police arrested 16 people in Israel, including senior
> executives of some of the country's leading high-tech companies and the
> private investigators they had allegedly employed. At the same time,
> British authorities, acting on an Israeli request, arrested the former
> son-in-law and his wife in London and are holding them pending an
> extradition hearing this week.
>
> Israeli newspapers, which had been alerted to the case last week but
> were prohibited from publishing details until the roundup was completed
> over the weekend, characterized it as the biggest case of industrial
> espionage in the country's history. "No one remembers a case like this
> in Israel -- an affair with such scope of investigation involving
> technology at this high level," said Chief Superintendent Rafi Levy,
> spokesman for the national police force.
>
>
>
> "It's the next generation of phishing attacks," said Graham Cluley,
> senior technology consultant for Sophos. "These rely on people going to

> real, legitimate sites. Once the Trojan determines that you've gone
> there, it starts taking keystroke logs and snaps shots of machines and
> sends it back to hackers."
>
> Phishing scammers typically set up bogus Web sites to capture victims'
> personal information. They send e-mails that appear to come from
> trusted companies to lure people to the fake sites, where victims are
> asked to enter information such as credit card data. Attacks frequently
> target bank customers, but eBay and Amazon.com have also been recent
> targets.
>
> Previous Next Barclays Bank said it had seen the technique of
> using legitimate sites before. A representative for the company said,
> "This type of Trojan is something (we) have been aware of for some
> time. We are working with (the) industry to identify the next steps to
> help combat fraud and are interested in educating customers."
>
> Sophos also said it had seen a similar Trojan, Tofger, a few months
> ago, but the technique had mainly been used in Brazil.
>
> "We did see another one a few months ago," Cluley added. "Some of the
> Brazilian ones just wait for the user to look at a Web site with the
> word 'bank' in (it), but this one specifically targets many well-known
> U.K. banks, and that makes it notable."
>
>
> Lawrence ben' Franklin wrote:
> > Why is the WJC [World Jewish Congress] which is affiliated with
> > Seagram's Liquors Global, in Toronto, not making an outcry over such an
> > abuse of the Americans and their government?
> >
> > Haven't we helped the Canadians a lot and the refugees from Hitler's
> > odious crimes, too?
> >
> > Whoever you are Golan, god bless you!!!
> >
> >
> > Thanks for trying to come to the aid of our nation.
> >
> > AIPAC sucks. They are unsavory and sneaky and untrustworthy and
> > unworthy of even our contempt.
> >
> > Put them on the blacklist, one and all.
> >
> > 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> > Watergate and record phone sex sessions between her and President Bill
> > Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> > their conversations were being taped and ended the affair. At the same
> > time, the FBI's hunt for "Mega" [top secret Mossad agent planted high
> > in US government] is called off.

> >
> > 2001 It is discovered that US drug agents' communications have been
> > penetrated. Suspicion falls on two companies, AMDOCS and Comverse
> > Infosys, both owned by Israelis. AMDOCS generates billing data for most
> > US phone companies and is able to provide detailed logs of who is
> > talking to whom. Comverse Infosys builds the tapping equipment used by
> > law enforcement to eavesdrop on all American telephone calls, but
> > suspicion forms that Comverse, which gets half of its research and
> > development budget from the Israeli government, has built a back door
> > into the system that is being exploited by Israeli intelligence and
> > that the information gleaned on US drug interdiction efforts is finding
> > its way to drug smugglers. The investigation by the FBI leads to the
> > exposure of the largest foreign spy ring ever uncovered inside the
> > United States, operated by Israel. Half of the suspected spies have
> > been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> > dancing and cheering while the World Trade Towers collapse. Supposedly
> > employed by Urban Moving Systems, the Israelis are caught with multiple
> > passports and a lot of cash. Two of them are later revealed to be
> > Mossad. As witness reports track the activity of the Israelis, it
> > emerges that they were seen at Liberty Park at the time of the first
> > impact, suggesting a foreknowledge of what was to come. The Israelis
> > are interrogated, and then eventually sent back to Israel. The owner of
> > the moving company used as a cover by the Mossad agents abandons his
> > business and flees to Israel. The United States Government then
> > classifies all of the evidence related to the Israeli agents and their
> > connections to 9-11. All of this is reported to the public via a four
> > part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> > primarily AIPAC, forces Fox News to remove the story from their
> > website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company
> > with offices just a few blocks from the World Trade Towers, receives an
> > advance warning via the internet. The manager of the New York Office
> > provides the FBI with the IP address of the sender of the message, but
> > the FBI does not follow up.
> >
> > 2001 The FBI is investigating 5 Israeli moving companies as possible
> > fronts for Israeli intelligence.
> >
> > ---
> >
> > The HAARP and the NIF are even more dangerous than AIPAC which just
> > planted a few Mossad spies into the Pentagon and they sold the secrets
> > stolen to Israeli high tech and EM weapons national industries there.
> >
> >
> > AIPAC spies in the Pentagon and White House
> > http://www.whatreallyhappened.com/motherofallscandals.html
> >
> > http://www.rense.com/general56/supreb.htm
> > Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon
> > Affairs

> > http://www.rense.com/general57/linkcon.htm
> >
> >
> > Yes. NIF and HAARP are run by the same Pentagon group.
> > ---------------------
> >
> > Israeli Spying:
> > The Mother of all Scandals
> > Once again, Israel has been caught with spies at the highest levels of
> > the US Government.
> >
> > At the heart of the investigation are two people who work at The
> > American Israel Public Affairs Committee (AIPAC), a powerful pro-Israel
> > lobby in Washington. The FBI investigation, headed up by Dave Szady,
> > has involved wiretaps, undercover surveillance and photography that CBS
> > News was told document the passing of classified information from the
> > mole, to the men at AIPAC, and on to the Israelis.
> >
> > CBS sources say that last year the suspected spy, described as a
> > trusted analyst at the Pentagon, turned over a presidential directive
> > on U.S. policy toward Iran while it was, "in the draft phase when U.S.
> > policy-makers were still debating the policy." This put the Israelis,
> > according to one source, "inside the decision-making loop" so they
> > could "try to influence the outcome." [CBS News]
> >
> > Once again Israel denies wrongdoing, or faced with incontrovertible
> > evidence (in this case one of the spies has reportedly cooperated with
> > the FBI) dismisses the spying with the claim that such spying is
> > harmless, because Israel and the United States are such good friends.
> >
> > Well, let us take a closer look at that idea of "harmless
> > espionage" by recalling Israel's most famous failed spy, Jonathan
> > Pollard.
> >
> > Jonathan Pollard is an American of Jewish descent, born in Galveston
> > Texas, who established a career as an intelligence analyst for the US
> > Navy. There have been many theories offered as to why Pollard decided
> > to betray his country of birth to the Jewish state, but that Pollard
> > did betray his country of birth to Israel is beyond all doubt.
> > Pollard's defense was that he did not spy so much against the United
> > States, only that he spied for Israel, sending them documents that in
> > his opinion the US should have shared with Israel anyway.
> >
> > That it was never Pollards job to decide what documents Israel should
> > have was apparently irrelevant. Pollard arrogated that authority to
> > himself. From his position of trust within the US Navy, Pollard
> > delivered over 1000 classified documents to Israel for which he was
> > well paid. Included in those documents were the names of over 150 US
> > agents in the Mideast, who were eventually "turned" into agents for
> > Israel.

> >
> > But by far the most egregious damage done by Pollard was to steal
> > classified documents relating to the US Nuclear Deterrent relative to
> > the USSR and send them to Israel. According to sources in the US State
> > Department, Israel then turned around and traded those stolen nuclear
> > secrets to the USSR in exchange for increased emigration quotas from
> > the USSR to Israel. Other information that found its way from the US to
> > Israel to the USSR resulted in the loss of American agents operating
> > inside the USSR. Casper Weinberger, in his affidavit opposing a reduced
> > sentence for Pollard, described the damage done to the United States
> > thus, "[It is] difficult to conceive of a greater harm to national
> > security than that caused by... Pollard's treasonous behavior."
> >
> > This should end the suggestion that Israel's spies are harmless. They
> > are not. The United States' nuclear deterrent cost an estimated five
> > trillion taxpayer dollars during the 50s and 60s to build and maintain,
> > and less than $100,000 for Pollard to undermine. Israel waited 13 years
> > to admit Pollard had been spying for them, and now lobbies for his
> > release, having granted him Israeli citizenship.
> >
> > Pollard is hardly the only Israeli spy operating in the United States.
> > He just had the misfortune to get caught. Here are just a few examples
> > of the Israeli spy operations that have been detected.
> >
> > 1947. Information collected by the ADL in its spy operations on US
> > citizens is used by the House Select Committee on Unamerican
> > Activities. Subcommittee Chair Clare Hoffman dismisses the ADL's
> > reports on suspected communists as "hearsay."
> >
> > 1950 John Davitt, former chief of the Justice Department's internal
> > security section notes that the Israeli intelligence service is the
> > second most active in the United States after the Soviets.
> >
> > 1954 A hidden microphone planted by the Israelis is discovered in the
> > Office of the US Ambassador in Tel Aviv.
> >
> > 1956 Telephone taps are found connected to two telephones in the
> > residence of the US military attaché in Tel Aviv.
> >
> > 1954 "The Lavon Affair". Israeli agents recruit Egyptian citizens of
> > Jewish descent to bomb Western targets in Egypt, and plant evidence to
> > frame Arabs, in an apparent attempt to upset US-Egyptian relations.
> > Israeli defense minister Pinchas Lavon is eventually removed from
> > office, though many think real responsibility lay with David
> > Ben-Gurion.
> >
> > 1965 Israel apparently illegally obtains enriched uranium from NUMEC
> > Corporation. (Washington Post, 6/5/86, Charles R. Babcock, "US an
> > Intelligence Target of the Israelis, Officials Say.")
> >

> > 1967 Israel attacks the USS Liberty, an intelligence gathering vessel
> > flying a US flag, killing 34 crew members. See "Assault on the
> > Liberty," by James M. Ennes, Jr. (Random House). In 2004, Captain Ward
> > Boston, Senior Legal Counsel for the Navy's Court of Inquiry into the
> > attack swears under oath that President Lyndon Johnson ordered the
> > investigation to conclude accident, even though the evidence indicates
> > the attack was deliberate. Given the use by Israel of unmarked boats
> > and planes, and the machine-gunning of USS Liberty's lifeboats, the
> > most likely explanation is that USS Liberty was to be sunk with all
> > hands, with evidence left to frame Egypt for the sinking. This would
> > have dragged the US into the war on Israel's side.
> >
> > 1970 While working for Senator Henry "Scoop" Jackson, Richard Perle
> > is caught by the FBI giving classified information to Israel. Nothing
> > is done.
> >
> > 1978, Stephen Bryen, then a Senate Foreign Relations Committee staffer,
> > is overheard in a DC hotel offering confidential documents to top
> > Israeli military officials. Bryen obtains a lawyer, Nathan Lewin, and
> > the case heads for the grand jury, but is mysteriously dropped. Bryen
> > later goes to work for Richard Perle.
> >
> > 1979 Shin Beth [the Israeli internal security agency] tries to
> > penetrate the US Consulate General in Jerusalem through a "Honey
> > Trap", using a clerical employee who was having an affair with a
> > Jerusalem girl.
> >
> > 1985 The New York Times reports the FBI is aware of at least a dozen
> > incidents in which American officials transferred classified
> > information to the Israelis, quoting [former Assistant Director of the
> > F.B.I.] Mr. [Raymond] Wannal. The Justice Department does not
> > prosecute.
> >
> > 1985 Richard Smyth, the owner of MILCO, is indicted on charges of
> > smuggling nuclear timing devices to Israel (Washington Post, 10/31/86).
> >
> >
> > 1987 April 24 Wall Street Journal headline: "Role of Israel in
> > Iran-Contra Scandal Won't be Explored in Detail by Panels"
> >
> > 1992 The Wall Street Journal reports that Israeli agents apparently
> > tried to steal Recon Optical Inc's top-secret airborne spy-camera
> > system.
> >
> > 1992 Stephen Bryen, caught offering confidential documents to Israel in
> > 1978, is serving on board of the pro-Israeli Jewish Institute for
> > National Security Affairs while continuing as a paid consultant -- with
> > security clearance -- on exports of sensitive US technology.
> >
> > 1992 "The Samson Option," by Seymour M. Hersh reports, "Illicitly

> > obtained intelligence was flying so voluminously from LAKAM into
> > Israeli intelligence that a special code name, JUMBO, was added to the
> > security markings already on the documents. There were strict orders,
> > Ari Ben-Menashe recalled: "Anything marked JUMBO was not supposed to be
> > discussed with your American counterparts."
> >
> > 1993. The ADL is caught operating a massive spying operation on critics
> > of Israel, Arab-Americans, the San Francisco Labor Council, ILWU Local
> > 10, Oakland Educational Association, NAACP, Irish Northern Aid,
> > International Indian Treaty Council, the Asian Law Caucus and the San
> > Francisco police. Data collected was sent to Israel and in some cases
> > to South Africa. Pressure from Jewish organizations forces the city to
> > drop the criminal case, but the ADL settles a civil lawsuit for an
> > undisclosed sum of cash.
> >
> > 1995 The Defense Investigative Service circulates a memo warning US
> > military contractors that "Israel aggressively collects [US] military
> > and industrial technology." The report stated that Israel obtains
> > information using "ethnic targeting, financial aggrandizement, and
> > identification and exploitation of individual frailties" of US
> > citizens.
> >
> > 1996 A General Accounting Office report "Defense Industrial Security:
> > Weaknesses in US Security Arrangements With Foreign-Owned Defense
> > Contractors" found that according to intelligence sources "Country A"
> > (identified by intelligence sources as Israel, Washington Times,
> > 2/22/96) "conducts the most aggressive espionage operation against the
> > United States of any US ally." The Jerusalem Post (8/30/96) quoted the
> > report, "Classified military information and sensitive military
> > technologies are high-priority targets for the intelligence agencies of
> > this country." The report described "An espionage operation run by the
> > intelligence organization responsible for collecting scientific and
> > technologic information for [Israel] paid a US government employee to
> > obtain US classified military intelligence documents." The Washington
> > Report on Middle East Affairs (Shawn L. Twing, April 1996) noted that
> > this was "a reference to the 1985 arrest of Jonathan Pollard, a
> > civilian US naval intelligence analyst who provided Israel's LAKAM
> > [Office of Special Tasks] espionage agency an estimated 800,000 pages
> > of classified US intelligence information."
> >
> > The GAO report also noted that "Several citizens of [Israel] were
> > caught in the United States stealing sensitive technology used in
> > manufacturing artillery gun tubes."
> >
> > 1996 An Office of Naval Intelligence document, "Worldwide Challenges to
> > Naval Strike Warfare" reported that "US technology has been acquired
> > [by China] through Israel in the form of the Lavi fighter and possibly
> > SAM [surface-to-air] missile technology." Jane's Defense Weekly
> > (2/28/96) noted that "until now, the intelligence community has not
> > openly confirmed the transfer of US technology [via Israel] to China."

> > The report noted that this "represents a dramatic step forward for
> > Chinese military aviation." (Flight International, 3/13/96)
> >
> > 1997 An Army mechanical engineer, David A. Tenenbaum, "inadvertently"
> > gives classified military information on missile systems and armored
> > vehicles to Israeli officials (New York Times, 2/20/97).
> >
> > 1997 The Washington Post reports US intelligence has intercepted a
> > conversation in which two Israeli officials had discussed the
> > possibility of getting a confidential letter that then-Secretary of
> > State Warren Christopher had written to Palestinian leader Yasir
> > Arafat. One of the Israelis, identified only as "Dov", had
> > commented that they may get the letter from "Mega", the code name for
> > Israel's top agent inside the United States.
> >
> > 1997 US ambassador to Israel, Martin Indyk, complains privately to the
> > Israeli government about heavy-handed surveillance by Israeli
> > intelligence agents.
> >
> > 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> > Watergate and record phone sex sessions between her and President Bill
> > Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> > their conversations were being taped and ended the affair. At the same
> > time, the FBI's hunt for "Mega" is called off.
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> > Infosys, both owned by Israelis. AMDOCS generates billing data for most
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> > law enforcement to eavesdrop on all American telephone calls, but
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> > United States, operated by Israel. Half of the suspected spies have
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> > employed by Urban Moving Systems, the Israelis are caught with multiple
> > passports and a lot of cash. Two of them are later revealed to be
> > Mossad. As witness reports track the activity of the Israelis, it
> > emerges that they were seen at Liberty Park at the time of the first
> > impact, suggesting a foreknowledge of what was to come. The Israelis
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> > the moving company used as a cover by the Mossad agents abandons his
> > business and flees to Israel. The United States Government then
> > classifies all of the evidence related to the Israeli agents and their
> > connections to 9-11. All of this is reported to the public via a four

> > part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> > primarily AIPAC, forces Fox News to remove the story from their
> > website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company
> > with offices just a few blocks from the World Trade Towers, receives an
> > advance warning via the internet. The manager of the New York Office
> > provides the FBI with the IP address of the sender of the message, but
> > the FBI does not follow up.
> >
> > 2001 The FBI is investigating 5 Israeli moving companies as possible
> > fronts for Israeli intelligence.
> >
> > 2001 JDL's Irv Rubin arrested for planning to bomb a US Congressman.
> > He dies before he can be brought to trial.
> >
> > 2002 The DEA issues a report that Israeli spies, posing as art
> > students, have been trying to penetrate US Government offices.
> >
> > 2002 police near the Whidbey Island Naval Air Station in southern
> > Washington State stop a suspicious truck and detain two Israelis, one
> > of whom is illegally in the United States. The two men were driving at
> > high speed in a Ryder rental truck, which they claimed had been used to
> > "deliver furniture." The next day, police discovered traces of TNT and
> > RDX military-grade plastic explosives inside the passenger cabin and on
> > the steering wheel of the vehicle. The FBI then announces that the
> > tests that showed explosives were "false positived" by cigarette
> > smoke, a claim test experts say is ridiculous. Based on an alibi
> > provided by a woman, the case is closed and the Israelis are handed
> > over to INS to be sent back to Israel. One week later, the woman who
> > provided the alibi vanishes.
> >
> > 2003 The Police Chief of Cloudcroft stops a truck speeding through a
> > school zone. The drivers turn out to be Israelis with expired
> > passports. Claiming to be movers, the truck contains junk furniture and
> > several boxes. The Israelis are handed over to immigration. The
> > contents of the boxers are not revealed to the public.
> >
> > 2003 Israel deploys assassination squads into other countries,
> > including the United States. The US Government does not protest.
> >
> > 2004 Police near the Nuclear Fuel Services plant in Tennessee stop a
> > truck after a three mile chase, during which the driver throws a bottle
> > containing a strange liquid from the cab. The drivers turn out to be
> > Israelis using fake Ids. The FBI refuses to investigate and the
> > Israelis are released.
> >
> > 2004 Two Israelis try to enter Kings Bay Naval Submarine Base, home to
> > eight Trident submarines. The truck tests positive for explosives.
> >
> > This brings us to the present scandal. Two years into an investigation
> > of AIPAC's possible role as a spy front for Israel, Larry Franklin, a

> > mid-level Pentagon Analyst is observed by the FBI giving classified
> > information to two officials of AIPAC suspected of being Israeli spies.
> > AIPAC hires lawyer Nathan Lewin to handle their legal defense, the same
> > lawyer who defended suspected Israeli spy Stephen Bryen in 1978.
> >
> > Larry Franklin worked in the Pentagon Office of Special Plans, run by
> > Richard Perle, at the time Perle (who was caught giving classified
> > information to Israel back in 1970) was insisting that Iraq was
> > crawling with weapons of mass destruction requiring the United States
> > to invade and conquer Iraq. There were no WMDs, of course, and Perle
> > has dumped the blame for the "bad intelligence" on George Tenet.
> > But what is known is that the Pentagon Office of Special Plans was
> > coordinating with a similar group in Israel, in Ariel Sharon's
> > office.
> >
> > With two suspected Israeli spies (at least) inside the office from
> > which the lies that launched the war in Iraq originated, it appears
> > that the people of the United States are the victims of a deadly hoax,
> > a hoax that started a war.
> >
> > The leaking of the investigation of AIPAC to the media on August 28th,
> > 2004 gave advance warning to other spies working with Franklin. The
> > damage to the FBI's investigation was completed when United States
> > Attorney General John Ashcroft ordered the FBI to stop all arrests in
> > the case. Like the Stephen Bryen case and the hunt for "Mega", this
> > latest spy scandal seems destined by officials who have their own
> > secret allegiances to protect, barring a massive public outcry.
> >
> > The organization at the heart of the latest spy investigation, AIPAC,
> > wields tremendous influence over the US Congress. Through its members
> > and affiliated PACs, AIPAC directs a huge flow of campaign cash in
> > favor of, and occasionally against, Senators and Representatives solely
> > on the basis of their willingness to support Israel. As an example, in
> > 2002, U.S. Rep. Artur Davis, D-Birmingham received so much help from
> > pro-Israeli pacs that 76% of his campaign budget came from OUTSIDE the
> > state of Alabama, mostly from New York.
> >
> > Let me repeat that. A Congressman AIPAC wanted elected received more
> > money from pro-Israel groups outside his state than from his own
> > constituents inside his state. Who is that Congressman going to be
> > thinking of when he votes in Congress?
> >
> > So here is the mother of all scandals.
> >
> > For two years, the FBI has suspected AIPAC of spying for a foreign
> > country, and for those two years (and for decades before) that group
> > suspected of spying for Israel has been reshaping the US Congress for
> > the benefit of a foreign government.
> >
> > And THAT is the mother of all scandals.

> >
> > Think about that as billions of your tax dollars flow to Israel while
> > your roads and schools crumble and decay and services are cut.
> >
> > Think about that as the coffins come home with your loved ones inside.
> >
> > Think about that when you and a million of your fellow citizens march
> > down the streets of America opposing wars built on lies and deceptions
> > and wonder why the government just doesn't want to listen to you any
> > more.
> >
> >
> >
> > ---
> >
> > See also: Is Israel Blackmailing America?

866. Re: AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 18:35:48 UTC
From: Lawrence ben' Franklin <lawrence_ben_franklin@yahoo.com>
Message-ID: <1118514948.621003.7100@f14g2000cwb.googlegroups.com>
Source record: 75232
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

"HAARETZ WORLD JEWISH NEWS" CONFIRMS SUSPICIONS THAT CLASSIFIED DATA
SPY HAEPHRATI [TROJAN HORSE COOKIE/VIRUS/BUG] WORKED FOR MOSSAD.

When will the U.S. criminally charge AIPAC and Lawrence Franklin???

direct from Haaretz:

"Haephrati, 41, who studied computers, is described by relatives as
being unable to hold down a job. Once, while unemployed, he allegedly
told relatives he was working undercover for the Israeli security
forces."
http://www.haaretz.com/hasen/spages/581808.html

HAARP Microwave Beam wrote:
> Israeli couple working for Mossad subvert global computer fire walls
> ....
>
> ZNET
>
> MICHAEL HAEPHRATI --- ENEMY OF THE STATES OF THE UNION
>
> NO. # ENEMY OF THE U.S.A -- Michael Haephrati -- [not Lawrence
> Franklin, who pee'd in the face of the Pentagon and got away laughing,
> but Michael Haephrati, 41, who had undergone a bitter divorce from
> Raziel Jackont's daughter eight years earlier -- and who, according to
> Jackont, was the model for a shady character in the novel, and who is
> at the heart of darkness of this espionage case against all main U.S.
> computer companies].
>
> Interpol and FBI and Mossad investigators now admit that Haephrati was
> involved in a much larger criminal conspiracy.
>
> In a statement released over the weekend, police said they had
> discovered a Trojan horse on Jackont's computer that they were able to
> trace to an unnamed source. The Trojan allowed the person to control
> the computer, make changes to its programs, monitor everything it
> contained and raid it for information -- all without leaving any hint
> of the Trojan's existence. Investigators also discovered that the same
> person had sold the software to three of Israel's largest private
> investigation companies, which allegedly used it to illegally collect
> data for their corporate clients and undermine US money transfers and
> military security.
>
> Hundreds of companies -- including many U.S. and European firms -- have

> been spied upon without realizing it.
>
> Last week's arrests included an executive of a major satellite
> television company, suspected of spying on a cable television rival,
> and officials of two cell phone companies, suspected of eavesdropping
> on a mutual rival. Also accused in the scheme was the Israeli importer
> of Volvos and Hondas, suspected of spying on the company that imports
> Audis and Volkswagens.
>
> The first of several police statements did not name the alleged author
> of the scheme but said two Israelis had been arrested in London for
> allegedly manufacturing and distributing the Trojan. Scotland Yard
> confirmed that Haephrati and his wife, Ruth Brier-Haephrati, 28, were
> being held for extradition to Israel for "unauthorized modification of
> the contents of a computer," according to the Associated Press. They
> have made no public comment on the charge.
>
> Security experts say they've discovered a Trojan horse that records
> e-banking user details and Web surfing habits.
>
> Antivirus company Sophos is warning that the Banker-AJ Trojan is
> targeting online customers of British banks such as Abbey, Barclays,
> Egg, HSBC, Lloyds TSB, Nationwide and NatWest. The Trojan affects
> computers running Microsoft Windows.
>
> The company said that once installed, the Trojan waits for users to
> visit their online banking Web sites, then captures passwords and takes
> screenshots of the session. The information is relayed to the hackers
> behind the ploy, who use the data to steal money and highly classified
> corporate and military information.
>
> Last week, police arrested 16 people in Israel, including senior
> executives of some of the country's leading high-tech companies and the
> private investigators they had allegedly employed. At the same time,
> British authorities, acting on an Israeli request, arrested the former
> son-in-law and his wife in London and are holding them pending an
> extradition hearing this week.
>
> Israeli newspapers, which had been alerted to the case last week but
> were prohibited from publishing details until the roundup was completed
> over the weekend, characterized it as the biggest case of industrial
> espionage in the country's history. "No one remembers a case like this
> in Israel -- an affair with such scope of investigation involving
> technology at this high level," said Chief Superintendent Rafi Levy,
> spokesman for the national police force.
>
>
>
> "It's the next generation of phishing attacks," said Graham Cluley,
> senior technology consultant for Sophos. "These rely on people going to

> real, legitimate sites. Once the Trojan determines that you've gone
> there, it starts taking keystroke logs and snaps shots of machines and
> sends it back to hackers."
>
> Phishing scammers typically set up bogus Web sites to capture victims'
> personal information. They send e-mails that appear to come from
> trusted companies to lure people to the fake sites, where victims are
> asked to enter information such as credit card data. Attacks frequently
> target bank customers, but eBay and Amazon.com have also been recent
> targets.
>
> Previous Next Barclays Bank said it had seen the technique of
> using legitimate sites before. A representative for the company said,
> "This type of Trojan is something (we) have been aware of for some
> time. We are working with (the) industry to identify the next steps to
> help combat fraud and are interested in educating customers."
>
> Sophos also said it had seen a similar Trojan, Tofger, a few months
> ago, but the technique had mainly been used in Brazil.
>
> "We did see another one a few months ago," Cluley added. "Some of the
> Brazilian ones just wait for the user to look at a Web site with the
> word 'bank' in (it), but this one specifically targets many well-known
> U.K. banks, and that makes it notable."
>
>
> Lawrence ben' Franklin wrote:
> > Why is the WJC [World Jewish Congress] which is affiliated with
> > Seagram's Liquors Global, in Toronto, not making an outcry over such an
> > abuse of the Americans and their government?
> >
> > Haven't we helped the Canadians a lot and the refugees from Hitler's
> > odious crimes, too?
> >
> > Whoever you are Golan, god bless you!!!
> >
> >
> > Thanks for trying to come to the aid of our nation.
> >
> > AIPAC sucks. They are unsavory and sneaky and untrustworthy and
> > unworthy of even our contempt.
> >
> > Put them on the blacklist, one and all.
> >
> > 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> > Watergate and record phone sex sessions between her and President Bill
> > Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> > their conversations were being taped and ended the affair. At the same
> > time, the FBI's hunt for "Mega" [top secret Mossad agent planted high
> > in US government] is called off.

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> > penetrated. Suspicion falls on two companies, AMDOCS and Comverse
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> > United States, operated by Israel. Half of the suspected spies have
> > been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> > dancing and cheering while the World Trade Towers collapse. Supposedly
> > employed by Urban Moving Systems, the Israelis are caught with multiple
> > passports and a lot of cash. Two of them are later revealed to be
> > Mossad. As witness reports track the activity of the Israelis, it
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> > impact, suggesting a foreknowledge of what was to come. The Israelis
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> > the FBI does not follow up.
> >
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> > fronts for Israeli intelligence.
> >
> > ---
> >
> > The HAARP and the NIF are even more dangerous than AIPAC which just
> > planted a few Mossad spies into the Pentagon and they sold the secrets
> > stolen to Israeli high tech and EM weapons national industries there.
> >
> >
> > AIPAC spies in the Pentagon and White House
> > http://www.whatreallyhappened.com/motherofallscandals.html
> >
> > http://www.rense.com/general56/supreb.htm
> > Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon
> > Affairs

> > http://www.rense.com/general57/linkcon.htm
> >
> >
> > Yes. NIF and HAARP are run by the same Pentagon group.
> > ---------------------
> >
> > Israeli Spying:
> > The Mother of all Scandals
> > Once again, Israel has been caught with spies at the highest levels of
> > the US Government.
> >
> > At the heart of the investigation are two people who work at The
> > American Israel Public Affairs Committee (AIPAC), a powerful pro-Israel
> > lobby in Washington. The FBI investigation, headed up by Dave Szady,
> > has involved wiretaps, undercover surveillance and photography that CBS
> > News was told document the passing of classified information from the
> > mole, to the men at AIPAC, and on to the Israelis.
> >
> > CBS sources say that last year the suspected spy, described as a
> > trusted analyst at the Pentagon, turned over a presidential directive
> > on U.S. policy toward Iran while it was, "in the draft phase when U.S.
> > policy-makers were still debating the policy." This put the Israelis,
> > according to one source, "inside the decision-making loop" so they
> > could "try to influence the outcome." [CBS News]
> >
> > Once again Israel denies wrongdoing, or faced with incontrovertible
> > evidence (in this case one of the spies has reportedly cooperated with
> > the FBI) dismisses the spying with the claim that such spying is
> > harmless, because Israel and the United States are such good friends.
> >
> > Well, let us take a closer look at that idea of "harmless
> > espionage" by recalling Israel's most famous failed spy, Jonathan
> > Pollard.
> >
> > Jonathan Pollard is an American of Jewish descent, born in Galveston
> > Texas, who established a career as an intelligence analyst for the US
> > Navy. There have been many theories offered as to why Pollard decided
> > to betray his country of birth to the Jewish state, but that Pollard
> > did betray his country of birth to Israel is beyond all doubt.
> > Pollard's defense was that he did not spy so much against the United
> > States, only that he spied for Israel, sending them documents that in
> > his opinion the US should have shared with Israel anyway.
> >
> > That it was never Pollards job to decide what documents Israel should
> > have was apparently irrelevant. Pollard arrogated that authority to
> > himself. From his position of trust within the US Navy, Pollard
> > delivered over 1000 classified documents to Israel for which he was
> > well paid. Included in those documents were the names of over 150 US
> > agents in the Mideast, who were eventually "turned" into agents for
> > Israel.

> >
> > But by far the most egregious damage done by Pollard was to steal
> > classified documents relating to the US Nuclear Deterrent relative to
> > the USSR and send them to Israel. According to sources in the US State
> > Department, Israel then turned around and traded those stolen nuclear
> > secrets to the USSR in exchange for increased emigration quotas from
> > the USSR to Israel. Other information that found its way from the US to
> > Israel to the USSR resulted in the loss of American agents operating
> > inside the USSR. Casper Weinberger, in his affidavit opposing a reduced
> > sentence for Pollard, described the damage done to the United States
> > thus, "[It is] difficult to conceive of a greater harm to national
> > security than that caused by... Pollard's treasonous behavior."
> >
> > This should end the suggestion that Israel's spies are harmless. They
> > are not. The United States' nuclear deterrent cost an estimated five
> > trillion taxpayer dollars during the 50s and 60s to build and maintain,
> > and less than $100,000 for Pollard to undermine. Israel waited 13 years
> > to admit Pollard had been spying for them, and now lobbies for his
> > release, having granted him Israeli citizenship.
> >
> > Pollard is hardly the only Israeli spy operating in the United States.
> > He just had the misfortune to get caught. Here are just a few examples
> > of the Israeli spy operations that have been detected.
> >
> > 1947. Information collected by the ADL in its spy operations on US
> > citizens is used by the House Select Committee on Unamerican
> > Activities. Subcommittee Chair Clare Hoffman dismisses the ADL's
> > reports on suspected communists as "hearsay."
> >
> > 1950 John Davitt, former chief of the Justice Department's internal
> > security section notes that the Israeli intelligence service is the
> > second most active in the United States after the Soviets.
> >
> > 1954 A hidden microphone planted by the Israelis is discovered in the
> > Office of the US Ambassador in Tel Aviv.
> >
> > 1956 Telephone taps are found connected to two telephones in the
> > residence of the US military attaché in Tel Aviv.
> >
> > 1954 "The Lavon Affair". Israeli agents recruit Egyptian citizens of
> > Jewish descent to bomb Western targets in Egypt, and plant evidence to
> > frame Arabs, in an apparent attempt to upset US-Egyptian relations.
> > Israeli defense minister Pinchas Lavon is eventually removed from
> > office, though many think real responsibility lay with David
> > Ben-Gurion.
> >
> > 1965 Israel apparently illegally obtains enriched uranium from NUMEC
> > Corporation. (Washington Post, 6/5/86, Charles R. Babcock, "US an
> > Intelligence Target of the Israelis, Officials Say.")
> >

> > 1967 Israel attacks the USS Liberty, an intelligence gathering vessel
> > flying a US flag, killing 34 crew members. See "Assault on the
> > Liberty," by James M. Ennes, Jr. (Random House). In 2004, Captain Ward
> > Boston, Senior Legal Counsel for the Navy's Court of Inquiry into the
> > attack swears under oath that President Lyndon Johnson ordered the
> > investigation to conclude accident, even though the evidence indicates
> > the attack was deliberate. Given the use by Israel of unmarked boats
> > and planes, and the machine-gunning of USS Liberty's lifeboats, the
> > most likely explanation is that USS Liberty was to be sunk with all
> > hands, with evidence left to frame Egypt for the sinking. This would
> > have dragged the US into the war on Israel's side.
> >
> > 1970 While working for Senator Henry "Scoop" Jackson, Richard Perle
> > is caught by the FBI giving classified information to Israel. Nothing
> > is done.
> >
> > 1978, Stephen Bryen, then a Senate Foreign Relations Committee staffer,
> > is overheard in a DC hotel offering confidential documents to top
> > Israeli military officials. Bryen obtains a lawyer, Nathan Lewin, and
> > the case heads for the grand jury, but is mysteriously dropped. Bryen
> > later goes to work for Richard Perle.
> >
> > 1979 Shin Beth [the Israeli internal security agency] tries to
> > penetrate the US Consulate General in Jerusalem through a "Honey
> > Trap", using a clerical employee who was having an affair with a
> > Jerusalem girl.
> >
> > 1985 The New York Times reports the FBI is aware of at least a dozen
> > incidents in which American officials transferred classified
> > information to the Israelis, quoting [former Assistant Director of the
> > F.B.I.] Mr. [Raymond] Wannal. The Justice Department does not
> > prosecute.
> >
> > 1985 Richard Smyth, the owner of MILCO, is indicted on charges of
> > smuggling nuclear timing devices to Israel (Washington Post, 10/31/86).
> >
> >
> > 1987 April 24 Wall Street Journal headline: "Role of Israel in
> > Iran-Contra Scandal Won't be Explored in Detail by Panels"
> >
> > 1992 The Wall Street Journal reports that Israeli agents apparently
> > tried to steal Recon Optical Inc's top-secret airborne spy-camera
> > system.
> >
> > 1992 Stephen Bryen, caught offering confidential documents to Israel in
> > 1978, is serving on board of the pro-Israeli Jewish Institute for
> > National Security Affairs while continuing as a paid consultant -- with
> > security clearance -- on exports of sensitive US technology.
> >
> > 1992 "The Samson Option," by Seymour M. Hersh reports, "Illicitly

> > obtained intelligence was flying so voluminously from LAKAM into
> > Israeli intelligence that a special code name, JUMBO, was added to the
> > security markings already on the documents. There were strict orders,
> > Ari Ben-Menashe recalled: "Anything marked JUMBO was not supposed to be
> > discussed with your American counterparts."
> >
> > 1993. The ADL is caught operating a massive spying operation on critics
> > of Israel, Arab-Americans, the San Francisco Labor Council, ILWU Local
> > 10, Oakland Educational Association, NAACP, Irish Northern Aid,
> > International Indian Treaty Council, the Asian Law Caucus and the San
> > Francisco police. Data collected was sent to Israel and in some cases
> > to South Africa. Pressure from Jewish organizations forces the city to
> > drop the criminal case, but the ADL settles a civil lawsuit for an
> > undisclosed sum of cash.
> >
> > 1995 The Defense Investigative Service circulates a memo warning US
> > military contractors that "Israel aggressively collects [US] military
> > and industrial technology." The report stated that Israel obtains
> > information using "ethnic targeting, financial aggrandizement, and
> > identification and exploitation of individual frailties" of US
> > citizens.
> >
> > 1996 A General Accounting Office report "Defense Industrial Security:
> > Weaknesses in US Security Arrangements With Foreign-Owned Defense
> > Contractors" found that according to intelligence sources "Country A"
> > (identified by intelligence sources as Israel, Washington Times,
> > 2/22/96) "conducts the most aggressive espionage operation against the
> > United States of any US ally." The Jerusalem Post (8/30/96) quoted the
> > report, "Classified military information and sensitive military
> > technologies are high-priority targets for the intelligence agencies of
> > this country." The report described "An espionage operation run by the
> > intelligence organization responsible for collecting scientific and
> > technologic information for [Israel] paid a US government employee to
> > obtain US classified military intelligence documents." The Washington
> > Report on Middle East Affairs (Shawn L. Twing, April 1996) noted that
> > this was "a reference to the 1985 arrest of Jonathan Pollard, a
> > civilian US naval intelligence analyst who provided Israel's LAKAM
> > [Office of Special Tasks] espionage agency an estimated 800,000 pages
> > of classified US intelligence information."
> >
> > The GAO report also noted that "Several citizens of [Israel] were
> > caught in the United States stealing sensitive technology used in
> > manufacturing artillery gun tubes."
> >
> > 1996 An Office of Naval Intelligence document, "Worldwide Challenges to
> > Naval Strike Warfare" reported that "US technology has been acquired
> > [by China] through Israel in the form of the Lavi fighter and possibly
> > SAM [surface-to-air] missile technology." Jane's Defense Weekly
> > (2/28/96) noted that "until now, the intelligence community has not
> > openly confirmed the transfer of US technology [via Israel] to China."

> > The report noted that this "represents a dramatic step forward for
> > Chinese military aviation." (Flight International, 3/13/96)
> >
> > 1997 An Army mechanical engineer, David A. Tenenbaum, "inadvertently"
> > gives classified military information on missile systems and armored
> > vehicles to Israeli officials (New York Times, 2/20/97).
> >
> > 1997 The Washington Post reports US intelligence has intercepted a
> > conversation in which two Israeli officials had discussed the
> > possibility of getting a confidential letter that then-Secretary of
> > State Warren Christopher had written to Palestinian leader Yasir
> > Arafat. One of the Israelis, identified only as "Dov", had
> > commented that they may get the letter from "Mega", the code name for
> > Israel's top agent inside the United States.
> >
> > 1997 US ambassador to Israel, Martin Indyk, complains privately to the
> > Israeli government about heavy-handed surveillance by Israeli
> > intelligence agents.
> >
> > 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> > Watergate and record phone sex sessions between her and President Bill
> > Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> > their conversations were being taped and ended the affair. At the same
> > time, the FBI's hunt for "Mega" is called off.
> >
> > 2001 It is discovered that US drug agents' communications have been
> > penetrated. Suspicion falls on two companies, AMDOCS and Comverse
> > Infosys, both owned by Israelis. AMDOCS generates billing data for most
> > US phone companies and is able to provide detailed logs of who is
> > talking to whom. Comverse Infosys builds the tapping equipment used by
> > law enforcement to eavesdrop on all American telephone calls, but
> > suspicion forms that Comverse, which gets half of its research and
> > development budget from the Israeli government, has built a back door
> > into the system that is being exploited by Israeli intelligence and
> > that the information gleaned on US drug interdiction efforts is finding
> > its way to drug smugglers. The investigation by the FBI leads to the
> > exposure of the largest foreign spy ring ever uncovered inside the
> > United States, operated by Israel. Half of the suspected spies have
> > been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> > dancing and cheering while the World Trade Towers collapse. Supposedly
> > employed by Urban Moving Systems, the Israelis are caught with multiple
> > passports and a lot of cash. Two of them are later revealed to be
> > Mossad. As witness reports track the activity of the Israelis, it
> > emerges that they were seen at Liberty Park at the time of the first
> > impact, suggesting a foreknowledge of what was to come. The Israelis
> > are interrogated, and then eventually sent back to Israel. The owner of
> > the moving company used as a cover by the Mossad agents abandons his
> > business and flees to Israel. The United States Government then
> > classifies all of the evidence related to the Israeli agents and their
> > connections to 9-11. All of this is reported to the public via a four

> > part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> > primarily AIPAC, forces Fox News to remove the story from their
> > website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company
> > with offices just a few blocks from the World Trade Towers, receives an
> > advance warning via the internet. The manager of the New York Office
> > provides the FBI with the IP address of the sender of the message, but
> > the FBI does not follow up.
> >
> > 2001 The FBI is investigating 5 Israeli moving companies as possible
> > fronts for Israeli intelligence.
> >
> > 2001 JDL's Irv Rubin arrested for planning to bomb a US Congressman.
> > He dies before he can be brought to trial.
> >
> > 2002 The DEA issues a report that Israeli spies, posing as art
> > students, have been trying to penetrate US Government offices.
> >
> > 2002 police near the Whidbey Island Naval Air Station in southern
> > Washington State stop a suspicious truck and detain two Israelis, one
> > of whom is illegally in the United States. The two men were driving at
> > high speed in a Ryder rental truck, which they claimed had been used to
> > "deliver furniture." The next day, police discovered traces of TNT and
> > RDX military-grade plastic explosives inside the passenger cabin and on
> > the steering wheel of the vehicle. The FBI then announces that the
> > tests that showed explosives were "false positived" by cigarette
> > smoke, a claim test experts say is ridiculous. Based on an alibi
> > provided by a woman, the case is closed and the Israelis are handed
> > over to INS to be sent back to Israel. One week later, the woman who
> > provided the alibi vanishes.
> >
> > 2003 The Police Chief of Cloudcroft stops a truck speeding through a
> > school zone. The drivers turn out to be Israelis with expired
> > passports. Claiming to be movers, the truck contains junk furniture and
> > several boxes. The Israelis are handed over to immigration. The
> > contents of the boxers are not revealed to the public.
> >
> > 2003 Israel deploys assassination squads into other countries,
> > including the United States. The US Government does not protest.
> >
> > 2004 Police near the Nuclear Fuel Services plant in Tennessee stop a
> > truck after a three mile chase, during which the driver throws a bottle
> > containing a strange liquid from the cab. The drivers turn out to be
> > Israelis using fake Ids. The FBI refuses to investigate and the
> > Israelis are released.
> >
> > 2004 Two Israelis try to enter Kings Bay Naval Submarine Base, home to
> > eight Trident submarines. The truck tests positive for explosives.
> >
> > This brings us to the present scandal. Two years into an investigation
> > of AIPAC's possible role as a spy front for Israel, Larry Franklin, a

> > mid-level Pentagon Analyst is observed by the FBI giving classified
> > information to two officials of AIPAC suspected of being Israeli spies.
> > AIPAC hires lawyer Nathan Lewin to handle their legal defense, the same
> > lawyer who defended suspected Israeli spy Stephen Bryen in 1978.
> >
> > Larry Franklin worked in the Pentagon Office of Special Plans, run by
> > Richard Perle, at the time Perle (who was caught giving classified
> > information to Israel back in 1970) was insisting that Iraq was
> > crawling with weapons of mass destruction requiring the United States
> > to invade and conquer Iraq. There were no WMDs, of course, and Perle
> > has dumped the blame for the "bad intelligence" on George Tenet.
> > But what is known is that the Pentagon Office of Special Plans was
> > coordinating with a similar group in Israel, in Ariel Sharon's
> > office.
> >
> > With two suspected Israeli spies (at least) inside the office from
> > which the lies that launched the war in Iraq originated, it appears
> > that the people of the United States are the victims of a deadly hoax,
> > a hoax that started a war.
> >
> > The leaking of the investigation of AIPAC to the media on August 28th,
> > 2004 gave advance warning to other spies working with Franklin. The
> > damage to the FBI's investigation was completed when United States
> > Attorney General John Ashcroft ordered the FBI to stop all arrests in
> > the case. Like the Stephen Bryen case and the hunt for "Mega", this
> > latest spy scandal seems destined by officials who have their own
> > secret allegiances to protect, barring a massive public outcry.
> >
> > The organization at the heart of the latest spy investigation, AIPAC,
> > wields tremendous influence over the US Congress. Through its members
> > and affiliated PACs, AIPAC directs a huge flow of campaign cash in
> > favor of, and occasionally against, Senators and Representatives solely
> > on the basis of their willingness to support Israel. As an example, in
> > 2002, U.S. Rep. Artur Davis, D-Birmingham received so much help from
> > pro-Israeli pacs that 76% of his campaign budget came from OUTSIDE the
> > state of Alabama, mostly from New York.
> >
> > Let me repeat that. A Congressman AIPAC wanted elected received more
> > money from pro-Israel groups outside his state than from his own
> > constituents inside his state. Who is that Congressman going to be
> > thinking of when he votes in Congress?
> >
> > So here is the mother of all scandals.
> >
> > For two years, the FBI has suspected AIPAC of spying for a foreign
> > country, and for those two years (and for decades before) that group
> > suspected of spying for Israel has been reshaping the US Congress for
> > the benefit of a foreign government.
> >
> > And THAT is the mother of all scandals.

> >
> > Think about that as billions of your tax dollars flow to Israel while
> > your roads and schools crumble and decay and services are cut.
> >
> > Think about that as the coffins come home with your loved ones inside.
> >
> > Think about that when you and a million of your fellow citizens march
> > down the streets of America opposing wars built on lies and deceptions
> > and wonder why the government just doesn't want to listen to you any
> > more.
> >
> >
> >
> > ---
> >
> > See also: Is Israel Blackmailing America?

867. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 18:55:30 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11amcstke865t3f@corp.supernews.com>
Source record: 75233

mike wrote:

> Gentlemen,
>
> I work for a student transportation company using UHF radio
> communications. While I have played around with CB radios several years
> ago I have no experience with UHF.
>
> Our system operates on either of 2 channels near 470MHz. Channel 1
> transmits via a repeater located in the hills a few miles away, while
> channel 2 is direct.
>
> For most of the last school year we have operated on channel 2 as
> channel 1 wasn't working. A company recently came out (not following
> known company authorization proceedures), and apparently repaired a
> faulty repeater. Our company was charged about $185.00 for parts and
> over $600.00 for labor. The rate worked out to be $80.00 per hour over
> 7.5 hours. Not only does this seem a wee bit steep to me, but the
> communications are still poor on channel 1.
>
> Assuming that the repeater is fine now, the problem seems to be more
> related to the individual busses. Over the course of time our mechanics
> have swapped-out radios, mics, and probably antennas as well. Given the
> nature of the problems and my previous (limited) experience with CB, my
> suspicion is that the antennas on the busses need to be tuned.
>
> I used to tune my CB antennas with an SWR meter and get good results. I
> understand the basics enough to be able to do that and could probably
> teach our mechanic as well. However, since I have no experience with
> UHF I don't know if there's more to it with UHF over standard CB and if
> there is more equipment required than an SWR meter. I am just having a
> real difficult time paying $80.00 an hour for someone to do something I
> used to do quite easily.
>
> Mike
>

$80 per hour isn't a bad price if the work is good. UHF requires more expensive instruments than CB, they amortize that in the labor costs -- in other words that $80 per hour is for the guy _plus_ the equipment.

Assuming the radios in the busses are in good shape (you could send them out for servicing and alighnment/checking for much less than you could have the guy come out and do it) you are left with antennas and cabling. I wouldn't expect that it's _just_ the antennas - coax can be pretty lossy at those frequencies, if it's been beaten up it'll show.

So get an SWR meter that'll work reliably at 470MHz, and try adjusting some antennas. Try replacing coax as well, and if either fix seems to work then keep it up.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

868. Re: QUICK 2nd questin- model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:07:12 UTC
From: ml <m@di.net>
Message-ID: <m-5399DE.15070811062005@news.verizon.net>
Source record: 75234

In article <42aaeeff$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

> ml wrote:
> > Ihave sgc 237 going into about 5ft of ladder line (mounted at base of
> > mast) to a horiz ctr feed dipole
> > '
> > it measures about 20ft 7" rf 'hot' side and 33' 7" rf gnd side
>
> You have reasonable feedpoint impedances for 30m-10m
> that the tuner should be able to match. Below 8.6 MHz,
> the mismatch starts to climb. It's not bad on 40m but
> very bad on 80m. So you have a reasonable setup for
> 40m-10m, pretty poor for 80m.

thank you very much Cecil. I guess thats all do to the small size
(antenna :)))

i really need to add some length to improve 80m and 160 i can do it
but not in a straight line,

at the end i'd hve to make a turn and go down the other side of roof
guess i'td end up sorta looking like a big fat square U shape thingy

greatful for the help

QUESTION:

if i swapped the hot w/the rf gnd effectively making >>>
33.7hot 20f.7 gnd would that be better??

i make the gnd longer as it said to in the sgc manual

thanks again

m

869. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:09:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tvcma1h066h397vrqlanqnlhstnfl6da5r@4ax.com>
Source record: 75235

On 11 Jun 2005 11:22:42 -0700, "mike" <anonemouser@gmail.com> wrote:

>Our system operates on either of 2 channels near 470MHz. Channel 1
>transmits via a repeater located in the hills a few miles away, while
>channel 2 is direct.

>communications are still poor on channel 1.

What does "poor" mean?

>Assuming that the repeater is fine now, the problem seems to be more
>related to the individual busses.

This needs more description. If just ONE bus operates fine, then you
don't have a problem with the repeater.

>Over the course of time our mechanics
>have swapped-out radios, mics, and probably antennas as well. Given the
>nature of the problems and my previous (limited) experience with CB, my
>suspicion is that the antennas on the busses need to be tuned.

Commercial mobile is usually quite bullet-proof and is far more
tolerant through over powered gear. The antennas would have to be
seriously whacko, like twice/half their usual size. In other words,
visual inspection with a ruler and basic understanding of wavelength
is enough (a whip roughly 16cm tall).

>I used to tune my CB antennas with an SWR meter and get good results. I
>understand the basics enough to be able to do that and could probably
>teach our mechanic as well. However, since I have no experience with
>UHF I don't know if there's more to it with UHF over standard CB and if
>there is more equipment required than an SWR meter. I am just having a
>real difficult time paying $80.00 an hour for someone to do something I
>used to do quite easily.

Hi Mike,

Sounds cheap at $80/hr. Frequently service problems are reducible to
connections. In your case this would be transmission line
connections, connectors, and antenna base clamping (screws or nuts).
Again, all of this is easily determined through visual inspection and
a pocket full of screwdrivers and pliers.

73's
Richard Clark, KB7QHC

870. Re: QUICK 2nd questin- model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:15:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <trdma1h0ggg1jqb5p73h8aaf09tqpreq8g@4ax.com>
Source record: 75236

On Sat, 11 Jun 2005 19:07:12 GMT, ml <m@di.net> wrote:

>if i swapped the hot w/the rf gnd effectively making >>>
>33.7hot 20f.7 gnd would that be better??

Hi Myles,

No such thing as hot/gnd as you use it. This is not household power wiring. You can swap the connections, but this will accomplish little. That is, unless you have failed to choke SGC wiring; then although everything will be repeatable (even with new symptoms), why it gives odd operation will be a mystery. (The solution to the mystery will be choke all SGC wiring.)

73's
Richard Clark, KB7QHC

871. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:24:15 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96727E537F422spectrumhogstarbandn@207.106.93.175>
Source record: 75237

> I didn't look at it but just noticed 'nvis' in the title.
> Of course, a dipole at 7 feet will have near-vertical gain
> over a G5RV at 50 feet. Near-vertical gain is NOT what the
> majority of hams desire. Near-vertical gain is the antithesis
> of DX.
>

I differ on that opinion. My 40M/80M operational preferences are definitely for close-in communications, such as getting on the Noon-Time net, various in-state 75M nets, and other "local" activities". The lower noise factor of the NVIS antenna helps, too. Of course, its best to have two antennas, one such as NVIS and another well placed dipole, for optimum choice.

Ed K7AAT

872. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:33:13 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96727FD8EB572spectrumhogstarbandn@207.106.93.175>
Source record: 75238

Mike,

Without knowing you, I have to only guess at your previous "CB" experience, and in doing so, will guess that it is a far cry from the knowledge and experience a good LMR technician has. Commercial radio is not CB! Only guessing from the description of your system that you gave, that is is poorly maintained, at best, and that the repeater had probably been neglected for quite some time? Several hours of labor would not be prohibitive, under those circumstances.

Assuming you can properly solder/crimp, and install RF connectors, I'd guess that you probably can save some money by doing some of the more basic work yourself. However, you will need more than a CB type SWR meter. I'd suggest a Bird Model 43 with the appropriate slug for your frequency and power. That will set you back at least $300.00+. Also, you probably ought to purchase some good quality connectors, antennas, and antenna cable/NMO installation kits as I expect you will find several of the busses needing them.

Good luck trying to do it yourself.

Ed K7AAT

873. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:33:13 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <_%Gqe.5223$VZ6.9123999@news.sisna.com>
Source record: 75247

... personally, I apply a little sticker of an arrow on each antenna I build...

... hey it can't hurt!!! <grin>

John

"William Taylor" <zach56@bellsouth.net> wrote in message news:8o1la1p6po3nrbd24b047dfnjpbn2fo0a3@4ax.com...
> http://www.hamuniverse.com/supernvis.html
>
> The claim is that a dipole 7 feet off the ground has
> a 10db gain over a G5RV at 50 feet.
>
> Is that possible, or hype?
>

874. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:47:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11amfvbcj14de8b@corp.supernews.com>
Source record: 75239

Modeing shows that radiating current can occur on a J-Pole feedline due to mutual coupling from the antenna. The amount depends heavily on the length and orientation of the feedline. The main effect of the current on the pattern is to distort the main lobe, reducing the amount of signal directed horizontally. I suspect that the widely varying reports on the effectiveness of a J-Pole are due, in part, at least, to different feedline lengths and orientations and therefore different amounts of feedline radiation.

If there is significant current on the feedline, it might take a couple of current (choke) baluns, placed about a quarter wave apart, to reduce it to a small value.

Most people don't realize that ground plane antennas are subject to the same phenomenon.

Roy Lewallen, W7EL

Larry wrote:
> ml wrote:
>
>> second
>>
>> I have a arrow 2/440 j pole works great---- it dosn't have any
>> radials hanging off naturally, so since basically just the center
>> conductor is connected would you suspect my coax shield is 'part of
>> the antenna' radiating alot of stuff??
>> (course the shield does attach to the bottom mounting plate of the
>> antenna but i wasn't counting that
>
>
> In the typical J-pole antenna, the shield connects to the long element
> and the center to the stub. I don't know your antenna in particular,
> but I would suspect this is the case and don't believe it is considered
> a radiating element.

875. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:55:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ab4294$1_2@spool9-west.superfeed.net>
Source record: 75241

Tom Donaly wrote:
> You don't want to end up like Cecil.

My end is down, not up, thank you.
--
73, Cecil http://www.qsl.net/w5dxp

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876. Re: Antenna Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:56:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11amggbhfdf8f3d@corp.supernews.com>
Source record: 75240
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Lo and Lee give the simple relationship between an antenna and its "negative" (e.g., slot vs dipole made from flat material the width of the slot) on p. 2-15 of their _Antenna Handbook_: Zslot * Zstrip = 1/4 * Z^2 where Z = the intrinsic wave impedance of the unbounded medium where both antennas are situated (e.g., free space).

Roy Lewallen, W7EL

RST Engineering wrote:
> We think we know that the impedance at the center of a thin wire antenna in
> free space is something on the order of 70 ohms at resonance (quarter-wave
> ears with the end fringing factor thrown in).
>
> We think we know that the VSWR bandwidth increases as that thick wire
> becomes fat. We think we know that the end fringing factor goes up as the
> antenna gets fatter.
>
>
> What I'm suspecting the further I look into it is that the NEGATIVE image of
> that dipole antenna (a slot cut into an infinite sheet of conductor fed at
> the center across the slot) is also resonant, but the impedance is going to
> be something on the order of 350 ohms. Jasik shows a method of off-center
> feeding that reduces the impedance to something on the order of 100 ohms.
>
> What is NOT mentioned is the aforementioned VSWR "goodness factor" going up
> with a fatter (wider?) slot.
>
> Is there a better reference to slot antennas than Jasik?
>
> Jim
>
>

877. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 19:57:54 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8nHqe.5230$0M7.9302128@news.sisna.com>
Source record: 75248

Roy:

My "bumbling goof-abouts" with antennas has proven to me you are once again right on the money...

I have gotten to where I don't even worry about the loss of a well constructed choking--balun/unun in the circuit--better to be safe than sorry...

John

"Roy Lewallen" <w7el@eznec.com> wrote in message news:11amfvbcj14de8b@corp.supernews.com...
> Modeing shows that radiating current can occur on a J-Pole feedline
> due to mutual coupling from the antenna. The amount depends heavily on
> the length and orientation of the feedline. The main effect of the
> current on the pattern is to distort the main lobe, reducing the
> amount of signal directed horizontally. I suspect that the widely
> varying reports on the effectiveness of a J-Pole are due, in part, at
> least, to different feedline lengths and orientations and therefore
> different amounts of feedline radiation.
>
> If there is significant current on the feedline, it might take a
> couple of current (choke) baluns, placed about a quarter wave apart,
> to reduce it to a small value.
>
> Most people don't realize that ground plane antennas are subject to
> the same phenomenon.
>
> Roy Lewallen, W7EL
>
> Larry wrote:
>> ml wrote:
>>
>>> second
>>>
>>> I have a arrow 2/440 j pole works great---- it dosn't have any
>>> radials hanging off naturally, so since basically just the center
>>> conductor is connected would you suspect my coax shield is 'part of
>>> the antenna' radiating alot of stuff?? (course the shield does
>>> attach to the bottom mounting plate of the antenna but i wasn't
>>> counting that
>>
>>
>> In the typical J-pole antenna, the shield connects to the long

>> element and the center to the stub. I don't know your antenna in
>> particular, but I would suspect this is the case and don't believe it
>> is considered a radiating element.

878. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 20:00:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ab43c1$1_2@spool9-west.superfeed.net>
Source record: 75242

Ed wrote:

>>I didn't look at it but just noticed 'nvis' in the title.
>>Of course, a dipole at 7 feet will have near-vertical gain
>>over a G5RV at 50 feet. Near-vertical gain is NOT what the
>>majority of hams desire. Near-vertical gain is the antithesis
>>of DX.

> I differ on that opinion. My 40M/80M operational preferences are
> definitely for close-in communications, such as getting on the Noon-Time
> net, various in-state 75M nets, and other "local" activities". The lower
> noise factor of the NVIS antenna helps, too. Of course, its best to have
> two antennas, one such as NVIS and another well placed dipole, for optimum
> choice.

What are you disagreeing with? How much DX do you work with
your NVIS antenna? Do you really think the majority of hams
are only interested in local communications on HF?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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879. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 20:25:23 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns967288B0E21E5spectrumhogstarbandn@207.106.93.175>
Source record: 75244

```
>
> What are you disagreeing with? How much DX do you work with
> your NVIS antenna? Do you really think the majority of hams
> are only interested in local communications on HF?

I guess my disagreement was with the word "majority"... but then, I was
thinking of 75M/40M and not the higher bands. I would say on the two bands
I meant to restrict my comments too, that more hams probably do communicate
"locally" rather than hunt DX.

Ed
```

880. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 20:28:49 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns967289459EDEDspectrumhogstarbandn@207.106.93.175>
Source record: 75245

> Tom Donaly wrote:
>> You don't want to end up like Cecil.

>
> My end is down, not up, thank you.

They have a pill for that, now, don't they? :^)

Ed

881. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 20:33:34 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <756dnXU87to51zbfRVn-hg@comcast.com>
Source record: 75246

"mike" <anonemouser@gmail.com> wrote in message
news:1118514162.175637.213400@g47g2000cwa.googlegroups.com...
> Gentlemen,
>
> I work for a student transportation company using UHF radio
> communications. While I have played around with CB radios several years
> ago I have no experience with UHF.
>
> Our system operates on either of 2 channels near 470 MHz. Channel 1
> transmits via a repeater located in the hills a few miles away, while
> channel 2 is direct.
>
Mike, what is your specific title or role within this company? are you a
driver? director/manager of operations?

"Playing around with CB radios" experience should not be referenced for this
situation - while interesting - no directly relevant. You are discussing a
land-mobile system that was likely designed and installed by a professional
company in your area. For example, FCC documents had to be filed for this
repeater, frequencies coordinated and applies for and appropriate licenses
applied for.
I am assuming that you are NOT using the General Mobile Radio Service (GMRS)
solution.

The "radio system" you described for your student transportation company is
a "dual purpose" design. Channel 1 provides distance communications via an
operational repeater, when communications via Channel 2 would not be
possible (terrain, distance, etc.). Channel 2 also provides communications
channel between your buses (special event, etc.) when they may be out of
range of your local repeater.

> For most of the last school year we have operated on channel 2 -- as
> channel 1
> wasn't working.

So, you did not have an operational communications system (Channel 1) for a
period of time? And this did not cause problems in your day to day
operations?

> A company recently came out (not following known company authorization
> procedures), and apparently repaired a faulty repeater.

It is UNUSUAL for an operational repeater (with this type of service) not to
have a contract or service agreement. Who owns this repeater? Your
transportation company? Your company's legal advisor should be consulted
about agreements and terms.

> Our company was charged about $185.00 for parts and over $600.00 for
> labor.
> The rate worked out to be $80.00 per hour over 7.5 hours.
> Not only does this seem a wee bit steep to me, but the communications
> are still poor on channel 1.

We can only assume that this work was for work on a repeater that you own -- and was not covered under a maintenance agreement (known in the trade as "break-fix" coverage).

I do not know "where you are" to comment specifically about regional differences in US labor rates, HOWEVER - the labor charges you are quoting are appropriate (almost identical to my Honda dealer - BTW).

You are making 2 mistakes here (common with entry level managers)

Confusing an "hourly labor charge" with a personnel hourly rate wage -- which is incorrect. The "hourly labor charge" usually includes the overhead for the company, transportation to site, the laborer's benefits, etc. If you are an operational manager - your financial officer or director will know this difference.

The other is that you assume that productivity is constant for all employees --
that's not true -- and you can look your bus shop floor and quicky identify workers that perform higher qualtiy in less time than other workers - are you paying them more?

You stated that you did not have an operational repeater (channel 1) for almost all last school year. So how are you determining communications are "still poor on channel 1" ??

> Assuming that the repeater is fine now, the problem seems to be more
> related to the individual busses.

This is a contradiction - you paid for repairs - is the repeater working satisfactory or not? Or are you now telling us the real problem?

> Over the course of time our mechanics have swapped-out radios, mics, and
> probably antennas as well. Given the nature of the problems and my
> previous
> (limited) experience with CB, my suspicion is that the antennas on the
> busses
> need to be tuned.

I signal losses with coax at UHF (470 MHz) are far greater than at 27 MHz (CB).

I have no idea who installed your first radios in these buses -- IF your company did it themselves -- without basic equipment to "cut" these UHF antennas -- then this is part of your problem.

Mike - you have a "broken" operational process here -- that needs to be addressed - the company that fixed your repeater likely has a group of installers (who install the radios for public service in your area - police,

fire, ambulance, etc.) that deal with this every day and can correctly advise you (and help you set up the correct process) for repeatable and reliable results.

> I used to tune my CB antennas with an SWR meter and get good results. I
> understand the basics enough to be able to do that and could probably
> teach our mechanic as well. However, since I have no experience with
> UHF I don't know if there's more to it with UHF over standard CB and if
> there is more equipment required than an SWR meter.

Now, you are starting to describes "changes in your operational processes" that need correction. First, I assume that you are responsible for this area of the company?

You should identify 1 or 2 individuals within your company to "handle" the radios and antenna installations and changes on these buses. You can likely find someone -- instead of mechanics -- who should be working on the buses. These individuals can be trained to correctly handle this work -- and to assure proper operation.

Purchasing the proper equipment (SWR meter) -- this really depends upon:

The number of bus radio systems you are maintaining;
Your "bus replacement cycle" each year (new buses replacing old buses)

IF you wish to internalize this function - site down and have a meeting with your local company -- they can properly advise you to the proper equipment you should buy and properly educate your staff to use this equipment.
As an alternative, you can ask for a price for such services from this company (on a "per bus" or "guaranteed number")

> I am just having a real difficult time paying $80.00 an hour for someone
> to do
> something I used to do quite easily.

Mike, to professionals in the radio communications field - this statement can be - very insulting -
"I pay a professional mechanic to do work on my car at $75 to $80 hour - which I probably could do -- BUT NOT at their productivity level (I do not do this work everyday) -- YET you are telling me that you won't pay $75 to $80 hour for a professional radio tech or engineer to work on your repeater -- that you have no training to troubleshoot or repair."

IF you truly believe this - KEEP IT TO YOURSELF.

Mike, you may ask - what in the h^%^% do I know about transportation, bus systems or telecommunication systems?

I worked for Greyhound Lines as the first Information Center Manager (for the then new PCs, LANs and national network) in the early 1980s. In that position I worked with over 63 bus maintenance and repair centers nationwide as well as 2 major rebuilding operations.

Today, I serve as global practice leader for network and telecommunications at an international consulting firm.

I am not going to send you "an invoice" for the advice above - my business is operational excellence, cost effectiveness and outstanding quality.
Work on those 3 principals.

gb

882. Re: Antenna Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 20:46:02 UTC
From: Barry Lennox <rianz.15.barryl@neverbox.com>
Message-ID: <t1jma19debh4m103pp4opaoo0hokj8bdf1@4ax.com>
Source record: 75243
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

On Sat, 11 Jun 2005 10:42:44 -0700, "RST Engineering"
<jim@rstengineering.com> wrote:

>We think we know that the impedance at the center of a thin wire antenna in
>free space is something on the order of 70 ohms at resonance (quarter-wave
>ears with the end fringing factor thrown in).
>
>We think we know that the VSWR bandwidth increases as that thick wire
>becomes fat. We think we know that the end fringing factor goes up as the
>antenna gets fatter.
>
>
>What I'm suspecting the further I look into it is that the NEGATIVE image of
>that dipole antenna (a slot cut into an infinite sheet of conductor fed at
>the center across the slot) is also resonant, but the impedance is going to
>be something on the order of 350 ohms. Jasik shows a method of off-center
>feeding that reduces the impedance to something on the order of 100 ohms.
>
>What is NOT mentioned is the aforementioned VSWR "goodness factor" going up
>with a fatter (wider?) slot.
>
>Is there a better reference to slot antennas than Jasik?
>

"Antennas" by Krause and Marhefka (ISBN 0-07-232103-2) has a useful
section on slot antennas, They suggest an off-center feedpoint of
lamda/20 will provide 50 Ohms. They don't specifically cover your VSWR
question, but a couple of trials will provide an easy answer.

Barry Lennox

883. monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 21:04:37 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118523877.821366.241720@f14g2000cwb.googlegroups.com>
Source record: 75249

Hello all,
in designing a monopole should i use the velocity factor of the wire in the equation or not? and if i want its impedance to be 50ohm should i use a matching network or is there another way?

884. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 21:07:00 UTC
From: nm5k@wt.net
Message-ID: <1118524020.697672.223180@g47g2000cwa.googlegroups.com>
Source record: 75250

I have gotten to where I don't even worry about the loss of a well constructed choking--balun/unun in the circuit--better to be safe than sorry...

If the decoupling is designed into the antenna, using cones, bells, sleeves, etc, there is little if any loss. Being as the feed radiation skews the pattern up off the horizon, adding decoupling usually ends up with a "gain" at that low angle. Also, I've heard different types of "J" feed methods, naturally decouple better than others..This also applies to the ringo's, etc. The gamma loop matching device on a ringo does a halfway job of decoupling the line, but it can always be improved by a 2nd decoupling section. I don't use conventional ferrite chokes when decoupling VHF/UHF antennas. IE: If I were to add additional decoupling to a ground plane, I would use a 2nd set of radials, or a sleeve, vs a ferrite choke. MK

885. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 21:30:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ab58cd$1_2@spool9-west.superfeed.net>
Source record: 75251

Ed wrote:

> w5dxp wrote:
>>My end is down, not up, thank you.
>
> They have a pill for that, now, don't they? :^)

If you want your end up, be my guest. I personally like
mine down in a Lazy Boy, where it belongs.
--
73, Cecil http://www.qsl.net/w5dxp

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886. Re: Antenna Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 23:00:05 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11amr7va6o1h223@corp.supernews.com>
Source record: 75253
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Which I calculate to be 266 ohms. However, a couple of other references to Kraus give the answer as more like 500 ohms, so now I'm the guy with two watches who is never sure of what the time is.

Jim

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11amggbhfdf8f3d@corp.supernews.com...
> Lo and Lee give the simple relationship between an antenna and its
> "negative" (e.g., slot vs dipole made from flat material the width of the
> slot) on p. 2-15 of their _Antenna Handbook_: Zslot * Zstrip = 1/4 * Z^2
> where Z = the intrinsic wave impedance of the unbounded medium where both
> antennas are situated (e.g., free space).

887. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 23:01:49 UTC
From: Dan Richardson <k6mh>
Message-ID: <d9rma150ubp33ohqb0fthrphjqnbitp128@4ax.com>
Source record: 75252

On 11 Jun 2005 14:04:37 -0700, "redhat" <aezzat1@gmail.com> wrote:

>Hello all,
>in designing a monopole should i use the velocity factor of the wire in
>the equation or not? and if i want its impedance to be 50ohm should i
>use a matching network or is there another way?

Are you sure you want 50-ohm impedance and not 37-ohms?

Danny, K6MHE

888. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-11 23:29:47 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118532587.678111.255990@z14g2000cwz.googlegroups.com>
Source record: 75254

yes, i want to match it to a 50ohm amplifier,why do you think it should be 37ohm, i have simulated it using EZNEC and the source impedance is 1.684 - J 4592, is there something wrong in that? it is 1/8 wavelength monopole.
Regards

889. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 00:08:30 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <42Lqe.5246$WJ5.11344011@news.sisna.com>
Source record: 75258

Well, undoubtedly...

the 1.684 is the "pure resistance value", and this would best be at 50
ohms...

if "- J 4592" is a real minus 4592 ohms cap reactance--it would be good
to insert a +Jx of 4592 ohms (an equal and opposite inductive
reactance)... so that Jx ends up zero...

... at that time you will find the finals in the amp start lasting
indefinitely--and you will not be bothered replacing them every few
minutes or so...

Warmest regards,
John

"redhat" <aezzat1@gmail.com> wrote in message
news:1118532587.678111.255990@z14g2000cwz.googlegroups.com...
> yes, i want to match it to a 50ohm amplifier,why do you think it
> should
> be 37ohm, i have simulated it using EZNEC and the source impedance is
> 1.684 - J 4592, is there something wrong in that? it is 1/8 wavelength
> monopole.
> Regards
>

890. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 00:11:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ab7eba$1_1@spool9-west.superfeed.net>
Source record: 75255

redhat wrote:
> yes, i want to match it to a 50ohm amplifier,why do you think it should
> be 37ohm, i have simulated it using EZNEC and the source impedance is
> 1.684 - J 4592, is there something wrong in that? it is 1/8 wavelength
> monopole.

Try a loading coil in the center of the 1/8 wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

891. Re: How much weight can a push up mast carry

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 00:39:13 UTC
From: kashe@sonic.net
Message-ID: <m31na1lqnbomo10ecqja45tmrbt4j8ii4a@4ax.com>
Source record: 75256

On Thu, 09 Jun 2005 22:34:04 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>On 9 Jun 2005 02:03:51 -0700, "Rob Brown" <kb8wws@gmail.com> wrote:
>
>>Hello All,
>>I've justed moved into a new home and the XYL isn't crazy about my
>>plans to build my "dream tower" just yet. I was wondering how much
>>weight a push up telescopic mast such as the Rohn 50 foot guyed unit
>>could safely carry. Specifically I want to mount my MFJ 80-2 meter
>>vertical, which weighs in at 20 pounds, and an 80 meter dipole on a
>>side arm mount. Any thoughts from the group that meight prove helpfull
>>are welcome.
>>Thanks and 73,
>>Rob Brown
>>KB8WWS
>
>Hi Rob,
>
>Gotta' ask 'ya. Didn't you tell your bride-to-be that you were a ham, and might
>need an antenna, before you asked her to marry you? Something like a pre-nup?
>Walt, W2DU

I think the proper forms are available for download (as PDFs)
on the ARRL website. :-)

892. Re: Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 00:40:58 UTC
From: joe jones <joe@yahoo.com>
Message-ID: <0@yahoo.com>
Source record: 75259

```
.. test of a free style message poster...

Warmest regards,
John
```

893. Re: Re: Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 00:41:53 UTC
From: joe jones <joe@yahoo.com>
Message-ID: <00@yahoo.com>
Source record: 75257

.. test of a free style message poster...

Warmest regards,
John

894. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:03:05 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118538185.702561.4910@g47g2000cwa.googlegroups.com>
Source record: 75260

what about the velocity factor of the wire, should i use it in the
equation of the antenna length or not?

895. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:06:25 UTC
From: mike <anonemouser@gmail.com>
Message-ID: <1118538385.772943.34170@g43g2000cwa.googlegroups.com>
Source record: 75261

Tim Wescott wrote:
> $80 per hour isn't a bad price if the work is good. UHF requires more
> expensive instruments than CB, they amortize that in the labor costs --
> in other words that $80 per hour is for the guy _plus_ the equipment.

Thanks, Tim. I am familiar with such issues, although I've had no reference points for this type of work. If that is the prevailing rate for UHF work then I'll accept that.

>
> Assuming the radios in the busses are in good shape (you could send them
> out for servicing and alighnment/checking for much less than you could
> have the guy come out and do it) you are left with antennas and cabling.
> I wouldn't expect that it's _just_ the antennas - coax can be pretty
> lossy at those frequencies, if it's been beaten up it'll show.

That's where I was headed with this. I have no desire to replace qualified service companies or personel, rather, it seems worthwhile to look into the feasibility of moving some of the more routine service requirements in-house. If it's not practical for us to tackle the antenna tuning/coax/connections ourselves, then we'll just have to deal with that.

>
> So get an SWR meter that'll work reliably at 470MHz, and try adjusting
> some antennas. Try replacing coax as well, and if either fix seems to
> work then keep it up.

Thanks. I was concerned about there being some differences in the process that I was unaware of between CB and UHF. My limited understanding of antennas leads me to think that the principals remain the same and therefore the process should as well. Nevertheless, it seemed appropriate to ask.

Mike

896. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:12:38 UTC
From: mike <anonemouser@gmail.com>
Message-ID: <1118538758.127566.38900@g44g2000cwa.googlegroups.com>
Source record: 75262

Richard Clark wrote:
> Sounds cheap at $80/hr. Frequently service problems are reducible to
> connections. In your case this would be transmission line
> connections, connectors, and antenna base clamping (screws or nuts).
> Again, all of this is easily determined through visual inspection and
> a pocket full of screwdrivers and pliers.

Thanks, Richard. As I was hoping would be the case.

Mike

897. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:13:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6t2na1pi1jd8drqosa1n41kn82bdh14nfe@4ax.com>
Source record: 75263

On 11 Jun 2005 18:03:05 -0700, "redhat" <aezzat1@gmail.com> wrote:

>what about the velocity factor of the wire, should i use it in the
>equation of the antenna length or not?

Hi OM,

Your problems with modeling go much further. The impedance you reported was seriously low, even for an 1/8th wave. What others were trying to communicate to you is that even the best 1/4th wave (a standard sized whip or monopole) will only give you 35 to 37 Ohms, not 50 Ohms. However, this is rarely an issue in achieving good performance. A 1 Ohm antenna, on the other hand, seriously begs close examination, patience, and care in feeding.

73's
Richard Clark, KB7QHC

898. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:24:49 UTC
From: mike <anonemouser@gmail.com>
Message-ID: <1118539489.618876.141630@g43g2000cwa.googlegroups.com>
Source record: 75264

Ed wrote:
> Without knowing you, I have to only guess at your previous "CB"
> experience, and in doing so, will guess that it is a far cry from the
> knowledge and experience a good LMR technician has. Commercial radio is
> not CB! Only guessing from the description of your system that you gave,
> that is is poorly maintained, at best, and that the repeater had probably
> been neglected for quite some time? Several hours of labor would not be
> prohibitive, under those circumstances.

Thanks, Ed. Of course I am a bit out of my element on this and that's
why I made it clear that I have no experience with UHF, and only
limited experience with CB. I was not directly referring to making
repairs on repeaters and the like, only antenna tuning and such.

>
> Assuming you can properly solder/crimp, and install RF connectors,
> I'd guess that you probably can save some money by doing some of the more
> basic work yourself. However, you will need more than a CB type SWR
> meter. I'd suggest a Bird Model 43 with the appropriate slug for your
> frequency and power. That will set you back at least $300.00+. Also,
> you probably ought to purchase some good quality connectors, antennas,
> and antenna cable/NMO installation kits as I expect you will find several
> of the busses needing them.

Thanks for the suggestions. Is $300 entry/mid for a basic meter of this
type?

Mike

899. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:25:10 UTC
From: Terry O'Neill <rfmscpa@earthlink.net>
Message-ID: <W9Mqe.2844$hK3.1913@newsread3.news.pas.earthlink.net>
Source record: 75265

I used an antenna quite similar to this (mine had only one ground reflector)
for local (within 300 miles) 40 meter ssb. Mine was at about 16' high.
About 1/8 wl on 40. It was consistently 2-3 s units better than the the high
(70') 40 meter dipole when working stations within about 300 miles. 300-1000
miles they were very close. For DX the high dipole was always better.

Here's a good web site that explains the phenomema

http://www.athensarc.org/nvis.htm

"William Taylor" <zach56@bellsouth.net> wrote in message
news:8o1la1p6po3nrbd24b047dfnjpbn2fo0a3@4ax.com...
> http://www.hamuniverse.com/supernvis.html
>
> The claim is that a dipole 7 feet off the ground has
> a 10db gain over a G5RV at 50 feet.
>
> Is that possible, or hype?
>

900. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:34:01 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <diMqe.5258$R97.12270624@news.sisna.com>
Source record: 75269

yes, a wire in free space has a velocity factor... if the formula for the antenna in question does not all ready take that velocity factor into consideration, you will need to consider the velocity...

... there is also "end effect"...

... simplest thing to do would be to use the formula which takes this all into consideration...

... first, I would google for "shortened antennas" or "shortened radiators" and get a bit more familiar with "loading" the antenna to resonance...

Warmest regards,
John
"redhat" <aezzat1@gmail.com> wrote in message
news:1118538185.702561.4910@g47g2000cwa.googlegroups.com...
> what about the velocity factor of the wire, should i use it in the
> equation of the antenna length or not?
>

901. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 01:44:21 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9672BEC5B5504spectrumhogstarbandn@207.106.92.175>
Source record: 75266

>
> Thanks for the suggestions. Is $300 entry/mid for a basic meter of
> this type?
>
> Mike

Actually, the $300.00 will barely get you the wattmeter at a reputable communications product dealer such as Tessco. I believe the individual elements would run around $65.00. You can see Tessco's listing at:

http://www.tessco.com/products/getProductInfo.do?sku=43948

More information on the Bird model I cited can be found at:

http://www.bird-electronic.com/products/product.aspx?id=81

There are other units that would work well, too, such as the Telewave model 44 watt meter. That one costs around $390.00 but doesn't need separate elements.

Again, a reminder, these are professional tools and you still need to know how and what to do when you find an antenna problem, and what proper parts to obtain.

Ed K7AAT

902. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 02:01:29 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <ZHMqe.2596$eM6.2533@newsread3.news.atl.earthlink.net>
Source record: 75267

> Thanks. I was concerned about there being some differences in the
> process that I was unaware of between CB and UHF. My limited
> understanding of antennas leads me to think that the principals remain
> the same and therefore the process should as well. Nevertheless, it
> seemed appropriate to ask.
>
> Mike
>

The principal is the same, but remember you are dealing with frequencies about 20 times higher so what you are use to will be multiplyed by 20. That is if you were cutting off an inch at a time theh you only need to cut off about 1/8 of an inch. Also make sure the SWR meter will work at the higher frequency. One desinged for a higher frequency will work at a lower frequency just fine if you can generate enough power for the pickup. One for a lower frequency will not work on a higher frequency as the pickup will start approaching a large portion of a wavelength. Also with lossey coax (which most all are at 400 mhz, the swr will be masked so a 3:1 or so at the antenna will show up as almost a perfect match at the transmitter end.

903. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 02:28:43 UTC
From: Dan Richardson <k6mh>
Message-ID: <2a7na1lj239fo4r54lagshdj2g90ska5ig@4ax.com>
Source record: 75268

On 11 Jun 2005 16:29:47 -0700, "redhat" <aezzat1@gmail.com> wrote:

>yes, i want to match it to a 50ohm amplifier,why do you think it should
>be 37ohm, i have simulated it using EZNEC and the source impedance is
>1.684 - J 4592, is there something wrong in that? it is 1/8 wavelength
>monopole.
>Regards

You hadn't stated that you were using a 1/8-wavelength monopole in
your original posting and I had assumed that you were discussing a
standard 1/4-wave monopole.

Danny, K6MHE

904. Re: Antenna Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 04:17:07 UTC
From: Terry Given <my_name@ieee.org>
Message-ID: <fHOqe.6734$U4.969873@news.xtra.co.nz>
Source record: 75270
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

RST Engineering wrote:
> Which I calculate to be 266 ohms. However, a couple of other references to
> Kraus give the answer as more like 500 ohms, so now I'm the guy with two
> watches who is never sure of what the time is.
>
> Jim
>
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11amggbhfdf8f3d@corp.supernews.com...
>
>>Lo and Lee give the simple relationship between an antenna and its
>>"negative" (e.g., slot vs dipole made from flat material the width of the
>>slot) on p. 2-15 of their _Antenna Handbook_: Zslot * Zstrip = 1/4 * Z^2
>>where Z = the intrinsic wave impedance of the unbounded medium where both
>>antennas are situated (e.g., free space).

same formula, handbook of microwave and optical components vol 1 p.672,
eq.11.117

ditto Krause 2nd ed. eq. 13-5-11.

Cheers
Terry

905. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 04:30:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11anek55214j13b@corp.supernews.com>
Source record: 75271

Richard Fry wrote:
> Following below are some thoughts of mine in response to an email sent
> to me.
>
> There are some good engineers reading this NG, and I am asking for
> comments on what I wrote -- corrections where seen necessary, and any
> other thoughts.
>
> Thanks.
>
> RF
>
> + + + + +
>
> ----- Original Message -----
>
>> The term "accept power" is interesting. To me, it's just a measure
>> of the input impedance of the antenna. If the resistance (radiation
>> plus loss resistance) is zero, you're not going to get it to absorb
>> power no matter what you do.
>
> ------------
>
> Yes. And the input conditions depend on the ability of the radiator to
> generate EM fields.

"Ability" could be a misleading term. If 100 watts is fed to a very short dipole, it will generate just as big a total field as a half wave dipole fed 100 watts (neglecting conductor loss). So for a given power input, it's just as able to generate an EM field as the longer dipole. It does require a lot more current. You might consider that to mean it's less "able" to generate a field, but if so, I think you should elaborate in order to avoid perpetuating misconceptions.

> No current can enter and "flow through" a radiator if
> it doesn't have some place to go.

I'm not sure what that means. A radiator is a circuit. Any current which flows in one terminal must flow out the other. That's true for any antenna of any kind.

> If a radiator is not electrically long
> enough to allow differential current to exist along its length, it cannot
> generate EM fields.

There is no such radiator. There's no threshold below which current
can't exist along its length.

> It is the di/dt along the radiator length that
> generates those fields.

Yep, and a short antenna has a much higher I and therefore di/dt for a
given power input than a long one. The result is the same total field.

> Adding a matching network at the antenna input doesn't change the
> instrinsic
> ability of an antenna to radiate.

Correct.

> That is determined by the factors
> described in the paragraph above.

I don't believe the factors you cited play any role in determining the
ability of an antenna to radiate.

> A matching network can permit the tx to
> increase its rated, safe output power while driving that poor antenna, but
> any extra power available at the antenna input because of that will be
> subject to the same poor radiation efficiency as if the matcher wasn't
> used.

Why "poor" radiation efficiency? An antenna radiates all the power it's
supplied, less the amount lost due to conductor and insulation
resistance. While it's more difficult to make a short antenna efficient,
it's not impossible. There's no loss of radiation efficiency directly
due to the length of the antenna.

> And much of any added power from the tx may get dissipated in lossy output
> system components other than the antenna, rather than being radiated.

That's correct. An antenna system which includes a short antenna is
likely to be less efficient because the short antenna's impedance
requires greater transformation than a longer antenna's, and this is
difficult to do with high efficiency. The loss of system efficiency (as
opposed to antenna radiation efficiency) is due to loss in the matching
network components.

> The
> antenna itself will still have the same directivity/gain that it had before
> the matching network was added.
>

Correct.

> Improving the ability of a poor antenna to generate EM fields per unit of
> source power is possible in a limited way only by increasing its electrical
> length.

Sorry, that's completely wrong. Try modeling a half wave dipole in free
space with the EZNEC demo program, then model a very short dipole, say

0.01 wavelength long. For both, set the wire loss to zero. You'll see
that the gain is only about a half dB different, due to the slightly
fatter shape of the short dipole's lobes. An Average Gain check, which
compares the total power in the field with the power fed from the
source, can be used as a direct measure of the radiation efficiency. It
should be very close to one for both antennas. (Any deviation from one
is due to calculation imprecision in the program.)

These EZNEC results are correct. If you have trouble believing them,
I'll be glad to furnish you with a few references from well known textbooks.

Of course, an actual antenna *will* have wire loss, and the wire
resistance will cause more loss in the short antenna than in a longer
one, due to the higher current for a given power input. It's that, plus
the matching system loss, that causes real short antennas to often
perform poorly -- not something inherently due to the generation of the
field from a short conductor.

> "Capacity hats" and inductances incorporated into the radiating
> structure can be used, as examples. This also raises the antenna radiation
> resistance and reduces the reactance at the antenna input -- making it
> easier to match into, and reducing system losses.

Yes. That word "system" is vital.
>
>> Someone gave an example of a pager antenna or something that had a
>> rated gain that was below isotropic. It'd be interesting to see where the
>> losses were.
>
>
> This is covered in my comments above, I believe.
>
> //

I hope you find these comments helpful.

Roy Lewallen, W7EL

906. Re: Question on MFJ Telescope mast

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 05:53:38 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <11anjf4q87kff3d@corp.supernews.com>
Source record: 75272

Don't know about MFJ's but I went to Lowes Home Improvement and bought one made by Channel Master and its good and strong.

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message news:Xns9671B1E0C1223spectrumhogstarbandn@207.106.93.175...
>
> Does anyone here have an MFJ telescoping antenna mast, model MFJ 1910?
> I have a 30' no-name mast marketed as a flag mast for RV'ers. At full
> extension it bends quite a bit at the top when supporting an 80M inverted V
> / Dipole of #14 copperweld. My question is, does the MFJ antenna mast
> bend a lot under similar circumstances?
>
>
> Ed K7AAT

907. Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 07:41:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75273

Why do so few correspondents on newsgroups give their real names and
call signs?

Why the hidden secrets?

People should be proud of their call signs.

Or do radio amateurs suffer from inferiority complexes.

Back to SWR.

Reg, G4FGQ

908. Re: QUICK 2nd questin- model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 12:02:04 UTC
From: ml <m@di.net>
Message-ID: <m-93F345.08015512062005@news.verizon.net>
Source record: 75274

In article <trdma1h0ggg1jqb5p73h8aaf09tqpreq8g@4ax.com>,
Richard Clark <kb7qhc@comcast.net> wrote:

> On Sat, 11 Jun 2005 19:07:12 GMT, ml <m@di.net> wrote:
>
> >if i swapped the hot w/the rf gnd effectively making >>>
> >33.7hot 20f.7 gnd would that be better??
>
> Hi Myles,
>
> No such thing as hot/gnd as you use it. This is not household power
> wiring. You can swap the connections, but this will accomplish
> little. That is, unless you have failed to choke SGC wiring; then
> although everything will be repeatable (even with new symptoms), why
> it gives odd operation will be a mystery. (The solution to the
> mystery will be choke all SGC wiring.)
>
> 73's
> Richard Clark, KB7QHC

<<<thanks rich, for the reply, rest assured of one thing you taught me

i have chokes all over!!! :)

909. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 12:28:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ac2b5e$1_1@spool9-west.superfeed.net>
Source record: 75025

Roy Lewallen wrote:
> A radiator is a circuit.

Most antennas are NOT a circuit. Most antennas are distributed
networks.

Circuit theory doesn't work on distributed network problems.
That's why distributed network analysis was invented.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

910. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 12:35:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ac2ce8$1_2@spool9-west.superfeed.net>
Source record: 75026

Reg Edwards wrote:
> Why do so few correspondents on newsgroups give their real names and
> call signs?

I'll bet your real name is Reginald. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

911. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 13:01:21 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118581281.118232.16530@f14g2000cwb.googlegroups.com>
Source record: 75027

i have made a modification to it, it is now 1/4 wavelength monopole.
the simulation output is : source voltage= 3092 at -89.79 deg. and
impedance= 11.08-j3092 ohm . what is the meaning of this source
voltage? i have placed a source with amplitude 1v at 0% from E1 because
it is a monopole, the ground type is free space.

912. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 13:28:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ac3952$1_2@spool9-west.superfeed.net>
Source record: 75028

redhat wrote:
> i have made a modification to it, it is now 1/4 wavelength monopole.
> the simulation output is : source voltage= 3092 at -89.79 deg. and
> impedance= 11.08-j3092 ohm . what is the meaning of this source
> voltage? i have placed a source with amplitude 1v at 0% from E1 because
> it is a monopole, the ground type is free space.

Sounds like the source is one amp, not one volt.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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913. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 14:17:13 UTC
From: Korbin Dallas <korbindallas@dodgeit.com>
Message-ID: <pan.2005.06.12.14.17.05.955446@dodgeit.com>
Source record: 75029

On Sat, 11 Jun 2005 15:00:18 -0500, Cecil Moore wrote:

> Ed wrote:
>
>>>I didn't look at it but just noticed 'nvis' in the title.
>>>Of course, a dipole at 7 feet will have near-vertical gain
>>>over a G5RV at 50 feet. Near-vertical gain is NOT what the
>>>majority of hams desire. Near-vertical gain is the antithesis
>>>of DX.
>
>> I differ on that opinion. My 40M/80M operational preferences are
>> definitely for close-in communications, such as getting on the Noon-Time
>> net, various in-state 75M nets, and other "local" activities". The lower
>> noise factor of the NVIS antenna helps, too. Of course, its best to have
>> two antennas, one such as NVIS and another well placed dipole, for optimum
>> choice.
>
> What are you disagreeing with? How much DX do you work with
> your NVIS antenna? Do you really think the majority of hams
> are only interested in local communications on HF?

Yes the majority of hams are indeed interested in Local HF communications
on 80 & 40. Something that will reliably commutate out to 300-400
miles.

When they think of DX they think 20 - 10 meters.

Those that are interested in DX on 80 meters are a very small minority.

--
Korbin Dallas
The name was changed to protect the guilty.

914. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 15:07:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ac5087$1_1@spool9-west.superfeed.net>
Source record: 75030

Korbin Dallas wrote:
>>What are you disagreeing with? How much DX do you work with
>>your NVIS antenna? Do you really think the majority of hams
>>are only interested in local communications on HF?
>
> Yes the majority of hams are indeed interested in Local HF communications
> on 80 & 40. Something that will reliably commutate out to 300-400
> miles.

They can get that from a 40 ft. high G5RV. No 7' high
NVIS dipole is needed. AND you can work DX on 20m-10m
with that 40 ft. high G5RV. I repeat, the majority of
hams are NOT interested *only* in local communications
on HF. A 7' high dipole is a poor performer on 20m-10m.
--
73, Cecil http://www.qsl.net/w5dxp

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915. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 15:39:25 UTC
From: Dan Richardson <k6mh>
Message-ID: <jgloa1h1di8bua7mun4c99i6btlmnhea4m@4ax.com>
Source record: 75031

On 12 Jun 2005 06:01:21 -0700, "redhat" <aezzat1@gmail.com> wrote:

>i have made a modification to it, it is now 1/4 wavelength monopole.
>the simulation output is : source voltage= 3092 at -89.79 deg. and
>impedance= 11.08-j3092 ohm . what is the meaning of this source
>voltage? i have placed a source with amplitude 1v at 0% from E1 because
>it is a monopole, the ground type is free space.

Something must be wrong with your model. A resonate 1/4-wave monopole
should have the resistance component around 20-ohms or so.
Additionally, it would appear by the high reactive component you give
that you do not have a ground plane included in you model. A 1/4-wave
monopole requires something to work against.

Danny, K6MHE

916. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 15:41:51 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <8JYqe.4374$Ub4.2996@fe06.lga>
Source record: 75032

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42ac2ce8$1_2@spool9-west.superfeed.net...
> Reg Edwards wrote:
>> Why do so few correspondents on newsgroups give their real names and
>> call signs?
>
> I'll bet your real name is Reginald. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
Walter is my middle name and Maxwell is my last. However, my first initial is M,
which stands for either Murgatroyd or Marmaduke, whichever you prefer.

Walt, W2DU

917. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 15:54:31 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <%UYqe.18$562.1623137@news.sisna.com>
Source record: 75034

Reg:

That is a very legit question. While I cannot speak for everyone, I can speak for myself and why methods are employed which lead some to suspicion of those who cloak themselves in anonymity.

In my area, I am the only "free thinker" (for want of better word(s)) here (well, at least openly so.)

I enjoy radio right down to blackest pirates heart. I am as likely to be found chatting with a trucker on the chicken band as chatting with a person on the ham bands. I am aware of the "freebanders", however my "discussions" with them are best left undefined.

At 50+ years old, the hams are too old in thinking even for I. I have had them parked upon my street with their meters, doing calculations on my power for the different bands in question. I have had harassing phone calls from them, mail, and e-mail as they accuse and threaten what they term my "illegal activity."

I am fed up with the whole lot of them. My course in this world is my own. I am courteous and enjoy EVERYONE being able to communicate--I would never knowingly or willingly stop, hamper or attempt to hinder others and their hobbies. Unfortunately, I have not found the same in others philosophy. I am outspoken, I will tell my opinion right up front--I have respect for other men doing the same, they need not agree with me, nor I with them--I find more importance in truth than in sugar coated words.

Because of my philosophy, and a vast number in disagreement, I have had my station here checked out twice--I passed in both instances--but don't wish to provoke a third. It is obvious to me that someone, probably some group (a bastard and all his friends and "good buddies.") has been the cause of this... and while I don't suspect the CB'er and freebanders, I now hold much caution around hams...

It ain't pretty--but is truth... and you did ask...

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Why do so few correspondents on newsgroups give their real names and
> call signs?
>
> Why the hidden secrets?

>
> People should be proud of their call signs.
>
> Or do radio amateurs suffer from inferiority complexes.
>
> Back to SWR.
> ----
> Reg, G4FGQ
>
>

918. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 16:10:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <68Zqe.21$j7.1550441@news.sisna.com>
Source record: 75033

Do you have your ground planes separated from the radiator in the model?

Do you have the source placed at the bottom end of the radiator?

Perhaps one more versed in EZNEC would take a look if you would
post/offer the antenna file you have created here...

John

"redhat" <aezzat1@gmail.com> wrote in message
news:1118581281.118232.16530@f14g2000cwb.googlegroups.com...
>i have made a modification to it, it is now 1/4 wavelength monopole.
> the simulation output is : source voltage= 3092 at -89.79 deg. and
> impedance= 11.08-j3092 ohm . what is the meaning of this source
> voltage? i have placed a source with amplitude 1v at 0% from E1
> because
> it is a monopole, the ground type is free space.
>

919. Re: AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 16:41:00 UTC
From: gsm@mendelson.com
Message-ID: <slrndaop5i.r16.gsm@cable.mendelson.com>
Source record: 75035
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

In article <1118514921.471388.240260@o13g2000cwo.googlegroups.com>,
Lawrence ben' Franklin wrote:
>
> "Haephrati, 41, who studied computers, is described by relatives as
> being unable to hold down a job. Once, while unemployed, he allegedly
> told relatives he was working undercover for the Israeli security
> forces."
> http://www.haaretz.com/hasen/spages/581808.html

I'm sorry to disapoint you, but that's what everyone who can't hold down
a job says. The same people when rejected by the army say they are in
a "secret unit", very hush hush, etc.

In reality, the real people who work for the mossad don't tell anyone. In fact
the head of the mossad was never published until about 2 years ago.

Geoff.
--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (077)-424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
VoN Skype: mendelsonfamily. Looking for work as a CTO or consultant in
handheld gaming, large systems development, handheld device construction, etc.
See U.S. patent applications 20050108591, 20050107165.

920. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 17:23:15 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <kkroa1hhu53buudb4peg5dmlma5v0d1k86@4ax.com>
Source record: 75036

On Sun, 12 Jun 2005 08:54:31 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>the cause of this... and while I don't suspect the CB'er and
>freebanders, I now hold much caution around hams...
>
>It ain't pretty--but is truth... and you did ask...
>
>Warmest regards,
>John

If you're 100% legal, there's no reason for anonymity. Hams don't
hide.

If you're only partly legal, hmmm...

bob
k5qwg

>
>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> Why do so few correspondents on newsgroups give their real names and
>> call signs?
>>
>> Why the hidden secrets?
>>
>> People should be proud of their call signs.
>>
>> Or do radio amateurs suffer from inferiority complexes.
>>
>> Back to SWR.
>> ----
>> Reg, G4FGQ
>>
>>
>

921. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 17:37:57 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <d8hrstpp1@ctb-nnrp2.saix.net>
Source record: 75037

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96727FD8EB572spectrumhogstarbandn@207.106.93.175...
>
>
> Mike,
>
> Without knowing you, I have to only guess at your previous "CB"
> experience, and in doing so, will guess that it is a far cry from the
> knowledge and experience a good LMR technician has. Commercial radio is
> not CB! Only guessing from the description of your system that you gave,
> that is is poorly maintained, at best, and that the repeater had probably
> been neglected for quite some time? Several hours of labor would not be
> prohibitive, under those circumstances.
>
> Assuming you can properly solder/crimp, and install RF connectors,
> I'd guess that you probably can save some money by doing some of the more
> basic work yourself. However, you will need more than a CB type SWR
> meter. I'd suggest a Bird Model 43 with the appropriate slug for your
> frequency and power. That will set you back at least $300.00+. Also,
> you probably ought to purchase some good quality connectors, antennas,
> and antenna cable/NMO installation kits as I expect you will find several
> of the busses needing them.
>
> Good luck trying to do it yourself.
>
> Ed K7AAT

IMHO a Bird meter is overkill in this situation. It's a bit like
recommending
a Rolls Royce for doing the weekly shopping. It will work, but so will a VW.
There are any number of
perfectly adequate meters from a wide variety of manufacturers at prices
considerably below that of a Bird.

73
Roger ZR3RC
http://www.sarl.org.za/callresponse.asp?Callsign=ZR3RC

922. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 17:57:10 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XH_qe.29$gQ5.1828993@news.sisna.com>
Source record: 75041

Bob:

I would like to think my neighbors enjoy me. I would like to think they would describe me as a man which can get along with anyone, is helpful, kind to women, children and animals--a danger to no man--and willing to help all--the type of individual one would like for a neighbor.

And, unless threatened with death, bodily injury or to be deprived of my property or pursuit of happiness, I will NOT move a hand to stop any--I gauge none, if their pursuits make them happy and are of no danger to anyone else--I will generally support those endeavors.

From the general demeanor my neighbors and fellow citizens reflect towards me--I think I am at least partially successful in my attempts to be an acceptable member of society.

I would even like to think to I am an asset to my community rather than a hindrance, burden or drain...

If some would still find me a "criminal" after I have fulfilled the obligations and responsibilities as I have mentioned above--then so be it...

... some of my personal pursuits I engage in are of a private nature and an exact description will have to be foregone.

Mind you! The above is not to be taken as an admission that I masturbate in private!!! <grin>

Warmest regards,
John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:kkroa1hhu53buudb4peg5dmlma5v0d1k86@4ax.com...
> On Sun, 12 Jun 2005 08:54:31 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>the cause of this... and while I don't suspect the CB'er and
>>freebanders, I now hold much caution around hams...
>>
>>It ain't pretty--but is truth... and you did ask...
>>
>>Warmest regards,
>>John
>
> If you're 100% legal, there's no reason for anonymity. Hams don't
> hide.

>
> If you're only partly legal, hmmm...
>
> bob
> k5qwg
>
>>
>>
>>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>>news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>>> Why do so few correspondents on newsgroups give their real names and
>>> call signs?
>>>
>>> Why the hidden secrets?
>>>
>>> People should be proud of their call signs.
>>>
>>> Or do radio amateurs suffer from inferiority complexes.
>>>
>>> Back to SWR.
>>> ----
>>> Reg, G4FGQ
>>>
>>>
>>
>

923. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 18:08:08 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <KqydnV8UyL6N5zHfRVn-vA@comcast.com>
Source record: 75038

```
----- Original Message -----
From: "Ed" <Huckleberry_REMOVE_@bigvalley.net>
Newsgroups: rec.radio.amateur.antenna
Sent: Saturday, June 11, 2005 8:44 PM
Subject: Re: Service Help
>
>>
>> Thanks for the suggestions. Is $300 entry/mid for a basic meter of
>> this type?
>>
>> Mike
>
```

I have a spare Bird 43 meter with the Peak Modification (your choice of "N" or UHF" connectors) and the leather carrying case that I could sell you for that price.

This came out of Cellular industry component repair shop (Condition is virtually new - described as "very good")

You would need to purchase the appropriate Bird Element for the Frequency and Power of the radios you use.

gb

924. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 19:17:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ap2hu85h9ht52@corp.supernews.com>
Source record: 75039

Antennas *are* circuits. Circuits can consist of either lumped or distributed components, or both.

However, that's not particularly relevant to my point. In the steady state, there is no test which can be devised that can distinguish an antenna (including feedline, if desired) from a black box containing lumped components -- a lumped component circuit(*). This allows us to simply design such things as matching networks without any consideration of the real properties of an antenna. Only when transient signals are involved is other than simple lumped-network analysis necessary. In a typical antenna and feedline system, steady state is reached much, much faster than even the fastest CW dit or speech component, so transient analysis isn't required for these common modes of operation. There are a few familiar situations where analysis under normal operating conditions requires consideration of the distributed nature of the system, such as when doing time domain reflectometry or in some situations involving television signals, both modulated and baseband. None of these, however, can be considered steady state so the simplified model isn't applicable.

Cecil, if you feel a need to expound yet more on your theories, please do so in one of the many threads you've come to dominate already, start a new one, or concentrate your efforts on your forthcoming QEX article. I hope you'll let us try and make an objective and hopefully helpful contribution from time to time on this newsgroup without your constantly attempting to steer the discussion to your theories.

(*) Furthermore, if we restrict analysis to a single frequency, the black box needs to contain only two components - a resistor and either a capacitor or inductor.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> A radiator is a circuit.
>
>
> Most antennas are NOT a circuit. Most antennas are distributed
> networks.
>
> Circuit theory doesn't work on distributed network problems.
> That's why distributed network analysis was invented.

925. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 19:31:34 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11ap3aipre9ttc3@corp.supernews.com>
Source record: 75040

Coming from, and living in, a rural culture where people are individuals with names, it is difficult for me to give weight to the emissions of those without a real name or call sign.

Not to place one's name on one's work is to place no value on it. It is irritating to see so much that is written here being given no value by the author.

Some of the most verbose are sounding brass and tinkling bells signifying nothing.

My opinion. My (only) name.

MAC N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Why do so few correspondents on newsgroups give their real names and
> call signs?
>
> Why the hidden secrets?
>
> People should be proud of their call signs.
>
> Or do radio amateurs suffer from inferiority complexes.
>
> Back to SWR.
> ----
> Reg, G4FGQ
>
>

926. Re: Question on MFJ Telescope mast

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 19:32:56 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96737FCF2CDE3spectrumhogstarbandn@207.106.93.175>
Source record: 75042

> Don't know about MFJ's but I went to Lowes Home Improvement and bought
> one made by Channel Master and its good and strong.
>

Thanks, Sarge. Will check that out at my next trip to a Lowes.

Ed

927. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 19:37:38 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9673809AEBE54spectrumhogstarbandn@207.106.93.175>
Source record: 75043

> They can get that from a 40 ft. high G5RV. No 7' high
> NVIS dipole is needed. AND you can work DX on 20m-10m
> with that 40 ft. high G5RV. I repeat, the majority of
> hams are NOT interested *only* in local communications
> on HF. A 7' high dipole is a poor performer on 20m-10m.

Cecil, since I started this thread with a comment on yours, in retrospect
I will admit what you say above is true! My comment applied to a small
particular group of operators on the lower bands (or is that higher bands?)

Ed K7AAT

928. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 19:38:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3b0re.38$xt7.2013304@news.sisna.com>
Source record: 75049

J. Mc Laughlin:

That is certainly an open and honest post, which gives deep insight into the authors mind...

It is obvious that only your close family, friends, fellow employees and local community have any "real" weight on your considerations and efforts...

While that is fine, it would be better if you did not place yourself in a position where you have influence over others you "have not met/don' know their name(s)"... as, even for your ignorance of them--they are just as important--in some instances, it is even to imagine them of even more importance...

... but, once one can verbalize their limitations they are in a far better position to deal with those limitations and not suffer others for their lack thereof...

Warmest regards,
John

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11ap3aipre9ttc3@corp.supernews.com...
> Coming from, and living in, a rural culture where people are
> individuals
> with names, it is difficult for me to give weight to the emissions of
> those
> without a real name or call sign.
>
> Not to place one's name on one's work is to place no value on it.
> It is
> irritating to see so much that is written here being given no value by
> the
> author.
>
> Some of the most verbose are sounding brass and tinkling bells
> signifying nothing.
>
> My opinion. My (only) name.
>
> MAC N8TT
>
>
> --
> J. Mc Laughlin; Michigan U.S.A.

> Home: JCM@Power-Net.Net
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> Why do so few correspondents on newsgroups give their real names and
>> call signs?
>>
>> Why the hidden secrets?
>>
>> People should be proud of their call signs.
>>
>> Or do radio amateurs suffer from inferiority complexes.
>>
>> Back to SWR.
>> ----
>> Reg, G4FGQ
>>
>>
>
>

929. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 19:42:37 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9673817305DF8spectrumhogstarbandn@207.106.93.175>
Source record: 75044

> IMHO a Bird meter is overkill in this situation. It's a bit like
> recommending
> a Rolls Royce for doing the weekly shopping. It will work, but so will
> a VW. There are any number of
> perfectly adequate meters from a wide variety of manufacturers at
> prices considerably below that of a Bird.
>

I certainly don't consider a Bird watt meter to be a "Rolls Royce" in the communications maintenance industry. If you look at ANY two-way radio maintenance shop, you will most likely find a Bird watt meter being used on a regular basis. Its more like a "Chevy" than a Rolls!

The guy is looking to do maintenance on a fleet of unknown number of busses. I recommended an instrument he can trust, and that will hold up to a considerable amount of physical abuse. So, if you think the Bird is too much, what are your suggestions for this guy?

Ed

930. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 20:19:30 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <n46pa113uoai1hm2vassn6btj1kgsaq7au@4ax.com>
Source record: 75045

On Sun, 12 Jun 2005 10:57:10 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>
>... some of my personal pursuits I engage in are of a private nature and
>an exact description will have to be foregone.
>
>Mind you! The above is not to be taken as an admission that I
>masturbate in private!!! <grin>
>
>Warmest regards,
>John

Well, let's hope it doesn't happen in public, either :-)

bob
k5qwg

931. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 20:25:00 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <wS0re.41$Yi.2053261@news.sisna.com>
Source record: 75047

Bob:

... I promise you, all will only be able to wonder what I am doing in
that restroom for extended lengths of time...

I may just be taking in the radio with me to fool everyone...
<innocent-look>

Warmest regards,
John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:n46pa113uoai1hm2vassn6btj1kgsaq7au@4ax.com...
> On Sun, 12 Jun 2005 10:57:10 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>
>>... some of my personal pursuits I engage in are of a private nature
>>and
>>an exact description will have to be foregone.
>>
>>Mind you! The above is not to be taken as an admission that I
>>masturbate in private!!! <grin>
>>
>>Warmest regards,
>>John
>
> Well, let's hope it doesn't happen in public, either :-)
>
> bob
> k5qwg
>
>
>

932. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 20:27:35 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42ac9b15_3@newsfeed.slurp.net>
Source record: 75046

"Richard Fry" wrote:
> ... I am asking for comments on what I wrote --

Thanks to all who responded. Now to process those responses.

RF

933. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 21:15:52 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118610952.335644.276830@o13g2000cwo.googlegroups.com>
Source record: 75048

Hello, Roy & the Group.

One think you may have missed, the original post was about a Arrow Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub type like the copper pipe ones. The OSJ does not need a choke, it does not have a problem with feedline radiation or a problem with Common Mode Currents.

> In the typical J-pole antenna, the shield connects to the long element
> and the center to the stub. I don't know your antenna in particular,
> but I would suspect this is the case and don't believe it is considered
> a radiating element.

The OSJ is not a typical J-pole.

73 Al Lowe N0IMW Arrow Antenna

934. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 21:23:09 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <k+6zS+h9eKrCFA8v@ifwtech.co.uk>
Source record: 75050

Richard Fry wrote:

>> ... I am asking for comments on what I wrote --
>_____
>
>Thanks to all who responded. Now to process those responses.
>
>RF
>

One final comment: this thread shows how difficult it can be to distil a complex subject down to a few paragraphs, without making generalizations that will sometimes be incorrect.

It can never be done in a single pass, so all credit for making the effort and for taking the comments on board.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

935. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:00:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11apc4gbhapdb48@corp.supernews.com>
Source record: 75051

Hm, why is that? How does an open stub prevent coupling from the antenna
to the feedline?

Roy Lewallen, W7EL

Al wrote:
> Hello, Roy & the Group.
>
> One think you may have missed, the original post was about a Arrow
> Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub
> type like the copper pipe ones. The OSJ does not need a choke, it does
> not have a problem with feedline radiation or a problem with Common
> Mode Currents.
>
>
>>In the typical J-pole antenna, the shield connects to the long element
>>and the center to the stub. I don't know your antenna in particular,
>>but I would suspect this is the case and don't believe it is considered
>>a radiating element.
>
>
> The OSJ is not a typical J-pole.
>
> 73 Al Lowe N0IMW Arrow Antenna
>

936. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:06:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11apcep1jnqcsd0@corp.supernews.com>
Source record: 75052

Russ wrote:
>
> OK, I'm calling bullshit on this one. What production Corvette was
> not GRP (glass reinforced polyester) or other non-metallic composite?
>

I know very little about this, but a few months ago I was fascinated by a half hour program about the history of the Corvette on public TV. (It's one of a series.) Turns out that the first couple of 'vettes weren't muscle cars at all, but gutless wonders with a small engine and two-speed automatic transmission -- it took a while to evolve. I don't recall for sure, but think it's likely those were metal.

Roy Lewallen, W7EL

937. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:07:05 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <im2re.1976$eL5.895@fe04.lga>
Source record: 75053

"John Smith" <assemblywizard@gmail.com> wrote in message
news:3b0re.38$xt7.2013304@news.sisna.com...
> J. Mc Laughlin:
>
> That is certainly an open and honest post, which gives deep insight into the
> authors mind...
>
> It is obvious that only your close family, friends, fellow employees and local
> community have any "real" weight on your considerations and efforts...
>
> While that is fine, it would be better if you did not place yourself in a
> position where you have influence over others you "have not met/don' know
> their name(s)"... as, even for your ignorance of them--they are just as
> important--in some instances, it is even to imagine them of even more
> importance...
>
> ... but, once one can verbalize their limitations they are in a far better
> position to deal with those limitations and not suffer others for their lack
> thereof...
>
> Warmest regards,
> John
>
> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:11ap3aipre9ttc3@corp.supernews.com...
>> Coming from, and living in, a rural culture where people are individuals
>> with names, it is difficult for me to give weight to the emissions of those
>> without a real name or call sign.
>>
>> Not to place one's name on one's work is to place no value on it. It is
>> irritating to see so much that is written here being given no value by the
>> author.
>>
>> Some of the most verbose are sounding brass and tinkling bells
>> signifying nothing.
>>
>> My opinion. My (only) name.
>>
>> MAC N8TT

On point, John, would you mind telling us just what 'W.W.O.C.W.' stands for, or
is that also out of bounds, along with your real name and call sign, if any?

Walt, W2DU

938. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:09:32 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <feoun2-jhl.ln1@p400bob.lse.com.au>
Source record: 75061

Hi Reg

It is indeed very simple

Once you post to this NG it is publicly available to anyone and anything that has an internet connection. Data about you can be farmed, correlated and remarketed. If you have trouble believing that do a Google on your callsign in NG's and see how many hits you get.

Even if one posts with a callsign (which I do) it is then easy to cross reference that to a govt database containing home address etc details. I dont have an issue with people not posting their callsigns for this reason. If personal contact is needed it is very easy to ask and I have never had a problem in doing so

Between me and the other experimnenter/hobbiests in this NG I have no problem with my identity or pride thereof. It's the "dark unknowns" <grin> I have the problem with.

Cheers Bob VK2YQA/WA5 Longview Texas (in 2 weeks anyway!)

Reg Edwards wrote:
> Why do so few correspondents on newsgroups give their real names and
> call signs?
>
> Why the hidden secrets?
>
> People should be proud of their call signs.
>
> Or do radio amateurs suffer from inferiority complexes.
>
> Back to SWR.
> ----
> Reg, G4FGQ
>
>

939. Re: Question on MFJ Telescope mast

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:18:44 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <8x2re.3235$hK3.961@newsread3.news.pas.earthlink.net>
Source record: 75054

Hi Ed -

I have never seen one of the MFJs, but I was also interested.

When I asked about them at my friendly local HRO, I was told
that they're as flexible as a fishing pole near the end, and that
I probably wouldn't be happy if I actually tried to hold anything
up with one. Although disappointed, I took their word for it,
and passed.

73, Ed, W6LOL

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns9671B1E0C1223spectrumhogstarbandn@207.106.93.175...
>
> Does anyone here have an MFJ telescoping antenna mast, model MFJ 1910?
> I have a 30' no-name mast marketed as a flag mast for RV'ers. At full
> extension it bends quite a bit at the top when supporting an 80M inverted
V
> / Dipole of #14 copperweld. My question is, does the MFJ antenna mast
> bend a lot under similar circumstances?
>
>
> Ed K7AAT

940. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:20:16 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <j2dpa1t90kfq92ov48cjd4eplef91tm1dc@4ax.com>
Source record: 75055

On 12 Jun 2005 14:15:52 -0700, "Al" <Arrow146@aol.com> wrote:

>Hello, Roy & the Group.
>
>One think you may have missed, the original post was about a Arrow
>Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub
>type like the copper pipe ones. The OSJ does not need a choke, it does
>not have a problem with feedline radiation or a problem with Common
>Mode Currents.
>
>> In the typical J-pole antenna, the shield connects to the long element
>> and the center to the stub.

I've read, in this group, it doesn't matter which side the center
connects to. That's not true?

> don't know your antenna in particular,
>> but I would suspect this is the case and don't believe it is considered
>> a radiating element.
>
>The OSJ is not a typical J-pole.
>
>73 Al Lowe N0IMW Arrow Antenna

By open stub, you mean there is no loop at the bottom of the "J"?

bob
k5qwg

941. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:34:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <hM2re.51$hn4.3097706@news.sisna.com>
Source record: 75068

Walter:

It is just a "funny."

W.W.O.C.W. = Worldwide Organization of Computer Wizards... it all started as an in-house joke at a position I held back in the 80's--I have kept it till this day to get responses from those who recognize it and remember its use...

... but, truth is, they really don't trust me with a "magic wand"... <frown>

Warmest regards,
John

"Walter Maxwell" <walt@w2du.com> wrote in message news:im2re.1976$eL5.895@fe04.lga...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:3b0re.38$xt7.2013304@news.sisna.com...
>> J. Mc Laughlin:
>>
>> That is certainly an open and honest post, which gives deep insight
>> into the authors mind...
>>
>> It is obvious that only your close family, friends, fellow employees
>> and local community have any "real" weight on your considerations and
>> efforts...
>>
>> While that is fine, it would be better if you did not place yourself
>> in a position where you have influence over others you "have not
>> met/don' know their name(s)"... as, even for your ignorance of
>> them--they are just as important--in some instances, it is even to
>> imagine them of even more importance...
>>
>> ... but, once one can verbalize their limitations they are in a far
>> better position to deal with those limitations and not suffer others
>> for their lack thereof...
>>
>> Warmest regards,
>> John
>>
>> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
>> news:11ap3aipre9ttc3@corp.supernews.com...
>>> Coming from, and living in, a rural culture where people are
>>> individuals

>>> with names, it is difficult for me to give weight to the emissions
>>> of those
>>> without a real name or call sign.
>>>
>>> Not to place one's name on one's work is to place no value on it.
>>> It is
>>> irritating to see so much that is written here being given no value
>>> by the
>>> author.
>>>
>>> Some of the most verbose are sounding brass and tinkling bells
>>> signifying nothing.
>>>
>>> My opinion. My (only) name.
>>>
>>> MAC N8TT
>
> On point, John, would you mind telling us just what 'W.W.O.C.W.'
> stands for, or is that also out of bounds, along with your real name
> and call sign, if any?
>
> Walt, W2DU
>

942. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:43:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <yU2re.52$dK2.2542729@news.sisna.com>
Source record: 75067

Roy:

You are right on target, I would have to ask my dad, but back around 1960 he had a 1956 vet (if I remember the year correctly--it was a 4 speed--again, if I remember correctly--that is really pressing my memory though--could easily be wrong)... it was an all aluminum body (sure about that), had a big engine, stick shift, and he never got out of second gear in town... however, it did NOT seem gutless to me... nor him as I remember it... he could have had a larger engine placed it it though... he had it for many years... sold it in the 70's for way more than he bought it for!!! ... he claims it was the only car he ever got a ticket in, and more than one...

John

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11apcep1jnqcsd0@corp.supernews.com...
> Russ wrote:
>>
>> OK, I'm calling bullshit on this one. What production Corvette was
>> not GRP (glass reinforced polyester) or other non-metallic composite?
>>
>
> I know very little about this, but a few months ago I was fascinated
> by a half hour program about the history of the Corvette on public TV.
> (It's one of a series.) Turns out that the first couple of 'vettes
> weren't muscle cars at all, but gutless wonders with a small engine
> and two-speed automatic transmission -- it took a while to evolve. I
> don't recall for sure, but think it's likely those were metal.
>
> Roy Lewallen, W7EL

943. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:44:18 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118616258.365403.253460@f14g2000cwb.googlegroups.com>
Source record: 75056

>Hm, why is that? How does an open stub prevent coupling from the antenna
>to the feedline?

>Roy Lewallen, W7EL

I was hoping we would not have to go through this AGAIN.

The typical J-Pole (Closed Stub) was designed to feed with open feed
line. Because Hams insist on feeding it with coax, a Band-Aid is
needed to choke off feed line radiation & common mode currents.
The Open Stub J-Pole was designed to feed with coax. So it don't need
the Band Aid.
The difference between the two is discussed in several antenna books.
Just ask anyone the owns one.
(http://www.eham.net/reviews/detail/1613)
Besides your the antenna expert, tell us why it would.
73 Al Lowe N0IMW

944. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:51:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <s%2re.53$Sa4.3011689@news.sisna.com>
Source record: 75065

redhat:

I don't want Roy jumping me about giving advice on his application...

However, you need to give the starting height of your elements some distance above ground... actually, you would be wise to really make this a "real" value, like the actual height the antenna will be...

... for example, say you have an eight foot long vertical radiator at ten feet above ground--then one x,y value will be 10.0 and the ending x,y value will be 18.0...

I hope that is clear enough, Roy Lewellan would best be consulted on EZNEC's exact workings...

John

"redhat" <aezzat1@gmail.com> wrote in message news:1118615852.408543.256450@g43g2000cwa.googlegroups.com...
> the ground was set to "free space" and when i selected "perfect"
> ground
> an error occured "one or more wires extended into or lying on the
> ground", the problem was that in the wire coordinates z was set to 0
> ,when i selected a different z the problem was solved but the voltage
> is still high, the antenna will be placed 90 deg. to the ground plane
> so what should be z value? the source is placed 0% from E1
> (monopole).note: i can't upload the file rightnow
>

945. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:57:38 UTC
From: Dan Richardson <k6mhe>
Message-ID: <83fpa1d4p8k3cn03539mkl6iolkftgv1ol@4ax.com>
Source record: 75057

>
>I was hoping we would not have to go through this AGAIN.
>
>The typical J-Pole (Closed Stub) was designed to feed with open feed
>line. Because Hams insist on feeding it with coax, a Band-Aid is
>needed to choke off feed line radiation & common mode currents.
>The Open Stub J-Pole was designed to feed with coax. So it don't need
>the Band Aid.
>The difference between the two is discussed in several antenna books.
>Just ask anyone the owns one.
>(http://www.eham.net/reviews/detail/1613)
>Besides your the antenna expert, tell us why it would.
>73 Al Lowe N0IMW

For exactly the same reason that you need a choke on a ground plane or any other antenna feed with coax. Depending upon the length of the feed line common mode current can be substantial. This, in turn, increases higher angle radiation. Now if you are most interested in talking to airplanes that would be a good thing, but if you prefer maximum signal towards the horizon then put a choke on that sucker!

Danny, K6MHE

946. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:58:04 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1118617083.981637.118340@g49g2000cwa.googlegroups.com>
Source record: 75058

the ground was set to "free space" and when i selected "perfect" ground

an error occured "one or more wires extended into or lying on the
ground", the problem was that in the wire coordinates z was set to 0
,when i selected a different z the problem was solved but the voltage
is still high, the antenna will be placed 90 deg. to the ground plane
so what should be z value?should it be the same length of the antenna?
the source is placed 0% from E1 (monopole). the pattern of the antenna
shows a gain of 1.5dbi ,if i have a circuit that outputs 2db for
example then the output from the antenna should be 3.5db, right? or
because dbi is referenced to isotropic source there is a conversion?
note: i can't upload the file rightnow

947. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 22:59:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42acbf32$1_1@spool9-west.superfeed.net>
Source record: 75059

Roy Lewallen wrote:
> In the steady
> state, there is no test which can be devised that can distinguish an
> antenna (including feedline, if desired) from a black box containing
> lumped components -- a lumped component circuit(*).

You can't distinguish between a resonant 1/2WL dipole and a dummy load
using a field strength meter? :-) You can't distinguish between a
dummy load impedor and a resonant dipole impedance? How about just
looking to see if a physical impedor exists? Those two impedances even
have different definitions in the IEEE Dictionary.

> Cecil, if you feel a need to expound yet more on your theories, please
> do so in one of the many threads you've come to dominate already, start
> a new one, or concentrate your efforts on your forthcoming QEX article.
> I hope you'll let us try and make an objective and hopefully helpful
> contribution from time to time on this newsgroup without your constantly
> attempting to steer the discussion to your theories.

Their not my theories, Roy. For instance,
the IEEE Dictionary distinguishes between the (virtual) feedpoint
impedance of a resonant antenna and the impedance of an impedor,
e.g. a dummy load. Those two impedances have *different* definitions.
A dummy load impedor is the *cause* of the load V/I ratio. The
resistance of a resonant 50 ohm antenna is the *effect* of the
feedpoint (superposed-V/superposed-I) ratio. Isn't it past time
for completely ignoring cause and effect?
--
73, Cecil http://www.qsl.net/w5dxp

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948. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:00:19 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118617219.305396.290650@o13g2000cwo.googlegroups.com>
Source record: 75060

>By open stub, you mean there is no loop at the bottom of the "J"?

>bob k5qwg

No, Open Stub means the 1/4 wave element and the 3/4 wave element are
not connected.

In the typical (closed stub) J-Pole I have seen the center of the coax
connected to ether side of the antenna, seems to work equally poor
ether way.

In the case of the Open Stub J-Pole I have found that a wider bandwidth
can be obtained connecting the center to the 3/4 wave element. (about
12 MHz.)
Connecting to the 1/4 wave element, bandwidth is only about 6 MHz.
The 2 meter band is only 4 MHz. so it really don't matter too much.
Try that with the typical copper pipe J-Pole.
73 Al Lowe N0IMW

949. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:07:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42acc11e$1_1@spool9-west.superfeed.net>
Source record: 75062

Ed wrote:
> My comment applied to a small
> particular group of operators on the lower bands (or is that higher bands?)

The top band is considered to be 160m so I assume "band" is
associated with wavelength, e.g. "160m band". So it appears
that higher bands = lower frequencies, but I could be wrong.
The IEEE Dictionary is no help. It thinks a "band" is a
track on a rotating memory device. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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950. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:10:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <gh3re.54$c75.3270762@news.sisna.com>
Source record: 75066

Dan:

Some of these arguments carry on into the realm where I lose interest...
but right on when you say, "...put a choke on that sucker!"

This may be due to the fact that I am not an "antenna guru" and can't be
certain when one is best, and when not... so what? Make fun of me
then!!!
<tongue-sticking-out-grin>

Warmest regards,
John

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:83fpa1d4p8k3cn03539mkl6iolkftgv1ol@4ax.com...
>
>>
>>I was hoping we would not have to go through this AGAIN.
>>
>>The typical J-Pole (Closed Stub) was designed to feed with open feed
>>line. Because Hams insist on feeding it with coax, a Band-Aid is
>>needed to choke off feed line radiation & common mode currents.
>>The Open Stub J-Pole was designed to feed with coax. So it don't need
>>the Band Aid.
>>The difference between the two is discussed in several antenna books.
>>Just ask anyone the owns one.
>>(http://www.eham.net/reviews/detail/1613)
>>Besides your the antenna expert, tell us why it would.
>>73 Al Lowe N0IMW
>
> For exactly the same reason that you need a choke on a ground plane or
> any other antenna feed with coax. Depending upon the length of the
> feed line common mode current can be substantial. This, in turn,
> increases higher angle radiation. Now if you are most interested in
> talking to airplanes that would be a good thing, but if you prefer
> maximum signal towards the horizon then put a choke on that sucker!
>
> Danny, K6MHE
>

951. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:10:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11apg72fmgus924@corp.supernews.com>
Source record: 75063

Al wrote:
>>Hm, why is that? How does an open stub prevent coupling from the antenna
>>to the feedline?
>
>
>>Roy Lewallen, W7EL
>
>
> I was hoping we would not have to go through this AGAIN.
>
> The typical J-Pole (Closed Stub) was designed to feed with open feed
> line. Because Hams insist on feeding it with coax, a Band-Aid is
> needed to choke off feed line radiation & common mode currents.
> The Open Stub J-Pole was designed to feed with coax. So it don't need
> the Band Aid.
> The difference between the two is discussed in several antenna books.
> Just ask anyone the owns one.
> (http://www.eham.net/reviews/detail/1613)
> Besides your the antenna expert, tell us why it would.
> 73 Al Lowe N0IMW

Sorry, I didn't realize we'd been through it before. If you'll tell me the date, I'll look up the postings and review them.

There are two things which can cause current on the feedline. One is by conduction. That mechanism is illustrated in Fig 21-1 at http://www.w2du/r2ch21.pdf, and elaborated on in http://eznec.com/Amateur/Articles/Baluns.pdf. Some types of feed systems can minimize this, and it looks like both the open and shorted stub feed systems are in this category.

But it's the second mechanism I was talking about -- mutual coupling, or induction. Even if you have a perfect current balun (common mode choke) at the feedpoint or any sort of feed system you want, current can still be coupled to the feedline. In a center fed dipole, it won't occur if you first make sure there's no conducted current, and place the feedline symmetrically relative to the dipole to make the coupling from the two dipole halves cancel. But you can't do this with a ground plane, J-Pole, or similar antenna -- there will always be coupling from the antenna to the feedline. Fiddling with the feedpoint won't prevent it, although it might change the current distribution on the feedline. Changing the feedline length and/or orientation and/or using a couple of current baluns spaced about a quarter wavelength apart are two ways it can be minimized.

I'd be interested in seeing any book which explains how a feedpoint modification can prevent current being coupled to the feedline (as opposed to being conducted).

Roy Lewallen, W7EL

952. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:11:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42acc222$1_1@spool9-west.superfeed.net>
Source record: 75064

Al wrote:
> One think you may have missed, the original post was about a Arrow
> Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub
> type like the copper pipe ones. The OSJ does not need a choke, it does
> not have a problem with feedline radiation or a problem with Common
> Mode Currents.

Al, have you modeled it with EZNEC and a path to ground?
--
73, Cecil http://www.qsl.net/w5dxp

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953. microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:11:55 UTC
From: Anchor <anchorelectronics@sympatico.ca>
Message-ID: <pan.2005.06.12.23.11.54.893920@sympatico.ca>
Source record: 75073

Any suggestions on how to build a 2.4 GHz CW transmitter with a microwave oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?

There are tons of "pringle" or coffee can antennas or similar on the web. For example: http://flakey.info/antenna/waveguide or http://www.turnpoint.net/wireless/antennas/mycoffeecan.html

I suppose one need only insert the magnetron antenna into the coffee can where one would normally mount the N-connector feed point.

A labeled diagram of a microwave magnetron can be found at: http://www.gallawa.com/microtech/mag_test.html

I suppose the metal coffee can has superior micro shielding properties relative to the aluminumized cardboard pringle can.

Would I be better off with plumbing copper drain pipe from the stray RF exposure perspective?

Since microwave magnetron use a half wave power supply, can I use two magnetrons in the same coffee can powered from a single AC HV transformer with a pair of HV rectifiers to feed alternate cycles to the magnetrons?

Greg, VE0ACR

954. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:16:01 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Rm3re.55$%35.3258440@news.sisna.com>
Source record: 75069

Ian:

AYE!!!

And being the uncouth slob I am, and holding the motto, "Whatever
works!" I get my butt kicked a lot... <frown>

John

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message
news:k+6zS+h9eKrCFA8v@ifwtech.co.uk...
> Richard Fry wrote:
>
>>> ... I am asking for comments on what I wrote --
>>_________________
>>
>>Thanks to all who responded. Now to process those responses.
>>
>>RF
>>
> One final comment: this thread shows how difficult it can be to distil
> a complex subject down to a few paragraphs, without making
> generalizations that will sometimes be incorrect.
>
> It can never be done in a single pass, so all credit for making the
> effort and for taking the comments on board.
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

955. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:18:35 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118618315.761601.139470@f14g2000cwb.googlegroups.com>
Source record: 75070

>For exactly the same reason that you need a choke on a ground plane or
>any other antenna feed with coax. <sniped>

>Danny, K6MHE

I agree with the choke needed on a ground plane. But all antennas ?
Sure you can put a choke on a OSJ won't hurt, won't help ether.
Been there, done that.

73 Al Lowe N0IMW

956. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:20:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42acc411$1_1@spool9-west.superfeed.net>
Source record: 75071

Roy Lewallen wrote:
> Turns out that the first couple of 'vettes
> weren't muscle cars at all, but gutless wonders with a small engine and
> two-speed automatic transmission -- it took a while to evolve. I don't
> recall for sure, but think it's likely those were metal.

Don't know about the body but it had virtually the same 6 cyl
engine and transmission as my uncle's 1955 Chevy Bel Aire.
Chevy introduced the V8 (350 in^3?) in 1956 and that's when
it went into the Corvette and into all those Chevys that broke
all the records that year.
--
73, Cecil http://www.qsl.net/w5dxp

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957. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:24:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42acc50b$1_1@spool9-west.superfeed.net>
Source record: 75072

Bob Miller wrote:
> By open stub, you mean there is no loop at the bottom of the "J"?

He means the bottom of the stub is the feedpoint, like this:

```
+-------------------------------------------------------------
|
FP
|
+-----------------
```

And that looks like an unbalanced feedpoint so it should result
in common-mode currents, sorta like an off center-fed dipole.
--
73, Cecil http://www.qsl.net/w5dxp

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958. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:26:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Rw3re.56$N25.3256376@news.sisna.com>
Source record: 75074

Bob:

A time back, it was pointed out to me by some individual in this thread that they could not value anything about me--without knowing my correct identity... I accepted that... hell, I am even wrong on a quite regular basis--that is a MUCH better reason for double-checking my "opinion\view\belief\etc", or, just discarding it altogether...

... but even those who promise me they are NEVER wrong, I always check--so you will not find me taking offense to others checking...

I am here to have a spot of fun, I get on the airwaves to have a spot of fun... I don't take life too seriously... I like to "play" with antennas... it is a hobby with me... a practical knowledge is all I seek--I doubt anyone will ever call me a guru--I just don't have that great a devotion...

Warmest regards,
John

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:feoun2-jhl.ln1@p400bob.lse.com.au...
> Hi Reg
>
> It is indeed very simple
>
> Once you post to this NG it is publicly available to anyone and
> anything that has an internet connection. Data about you can be
> farmed, correlated and remarketed. If you have trouble believing that
> do a Google on your callsign in NG's and see how many hits you get.
>
> Even if one posts with a callsign (which I do) it is then easy to
> cross reference that to a govt database containing home address etc
> details. I dont have an issue with people not posting their callsigns
> for this reason. If personal contact is needed it is very easy to ask
> and I have never had a problem in doing so
>
> Between me and the other experimnenter/hobbiests in this NG I have no
> problem with my identity or pride thereof. It's the "dark unknowns"
> <grin> I have the problem with.
>
> Cheers Bob VK2YQA/WA5 Longview Texas (in 2 weeks anyway!)
>
>
> Reg Edwards wrote:
>> Why do so few correspondents on newsgroups give their real names and

>> call signs?
>>
>> Why the hidden secrets?
>>
>> People should be proud of their call signs.
>>
>> Or do radio amateurs suffer from inferiority complexes.
>>
>> Back to SWR.
>> ----
>> Reg, G4FGQ
>>

959. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-12 23:33:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42acc71c$1_2@spool9-west.superfeed.net>
Source record: 75125

John Smith wrote:
> You are right on target, I would have to ask my dad, but back around
> 1960 he had a 1956 vet ... however, it did NOT seem gutless to me...

The Corvette was introduced in 1955 with Chevy's old straight
six engine. I remember it in a Mike Hammer movie, "Kiss Me Deadly".
The 1956 models got that first short stroke V8 which was the
grandfather of the engine in my daughter's 2003 Chevy Tahoe.
--
73, Cecil http://www.qsl.net/w5dxp

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960. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:13:34 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118621614.532515.33740@g49g2000cwa.googlegroups.com>
Source record: 75126

>Sorry, I didn't realize we'd been through it before. If you'll tell me
>the date, I'll look up the postings and review them.

>There are two things which can cause current on the feedline. <sniped>

I don't remember if you were involved or not Roy. It's been about 10
years ago.
One I remember is Tom Raunch (hope I spelled that right).
We argued for weeks about the OSJ until I sent him one.
Some tried modeling it, some even claimed it would not work at all.
The OSJ has been around for a long time, I did not invent it, I just
build it better.
I guess all antennas have feed line radiation and/or common mode
currents to some degree.
I suppose with the right equipment you can measure anything.
But I think most would find a big difference between an OSJ & a CSJ
Just because two antennas look similar, don't mean they work the same.

Ok, that was fun, But I have wasted enough time, I got to get back to
building Antennas.
73 Al Lowe N0IMW

961. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:20:01 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Ri4re.3104$eM6.1627@newsread3.news.atl.earthlink.net>
Source record: 75127

>
> Don't know about the body but it had virtually the same 6 cyl
> engine and transmission as my uncle's 1955 Chevy Bel Aire.
> Chevy introduced the V8 (350 in^3?) in 1956 and that's when
> it went into the Corvette and into all those Chevys that broke
> all the records that year.
> --
> 73, Cecil http://www.qsl.net/w5dxp

The 327 was not offered tuil the 1962 modle came out. The 350 engine was still later. I think it was the 1967 or 68 when the 350 engine was offered in anything. In 1955 it came out with a small V8, the 265 which was the basis of all the small block engines of that series. Also I think that was the first year they got away from the 2 speed auto transmission and offered a manual transmission. The six cylinder was basically the same as in the other cars but it was setup to produce more horespower than most other modles of that era.

962. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:21:37 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11apkcaq3mkjad7@corp.supernews.com>
Source record: 75128

Anchor wrote:

> Any suggestions on how to build a 2.4 GHz CW transmitter with a microwave
> oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?
>
> There are tons of "pringle" or coffee can antennas or similar on the web.
> For example: http://flakey.info/antenna/waveguide or
> http://www.turnpoint.net/wireless/antennas/mycoffeecan.html
>
> I suppose one need only insert the magnetron antenna into the coffee can
> where one would normally mount the N-connector feed point.
>
> A labeled diagram of a microwave magnetron can be found at:
> http://www.gallawa.com/microtech/mag_test.html
>
> I suppose the metal coffee can has superior micro shielding properties
> relative to the aluminumized cardboard pringle can.
>
> Would I be better off with plumbing copper drain pipe from the stray RF
> exposure perspective?
>
> Since microwave magnetron use a half wave power supply, can I use two
> magnetrons in the same coffee can powered from a single AC HV transformer
> with a pair of HV rectifiers to feed alternate cycles to the magnetrons?
>
> Greg, VE0ACR

The July 1989 73 had an article on using a microwave oven for ATV. It
involved keeping most of the oven intact (including interlocks), with a
blocking plate over the opening between the magnetron and the oven
cavity and an e-field probe to couple the output to coax.

Beyond that I know nothing.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

963. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:26:45 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118622405.674298.98600@z14g2000cwz.googlegroups.com>
Source record: 75129

>He means the bottom of the stub is the feedpoint, like this:
>
>+---------------------------- ----------------------------- -
>|
>FP
>|
>+-----------------
>
>And that looks like an unbalanced feedpoint so it should result
>in common-mode currents, sorta like an off center-fed dipole.

Not quite. Look closer - http://www.arrowantennas.com/j-pole.html
You assume it should result in common-mode currents.
And you know what happens when you Ass u me.
73 Al Lowe N0IMW

964. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:27:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11apkmugkffc63a@corp.supernews.com>
Source record: 75130

And he's off again. I gained a lot of peace when I put "John Smith" and Jesus as the very first two entries in my filter list some time ago. You now have the distinction of being the third -- just below Jesus.

It's really a shame -- on those rare instances where you can be coaxed into commenting without being compelled to steer the subject to your favorite obsession, you really do have a lot to offer. But the duty cycle is just too low -- it's not worth it to me. Bye.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> In the steady state, there is no test which can be devised that can
>> distinguish an antenna (including feedline, if desired) from a black
>> box containing lumped components -- a lumped component circuit(*).
>
>
> You can't distinguish between a resonant 1/2WL dipole and a dummy load
> using a field strength meter? :-) You can't distinguish between a
> dummy load impedor and a resonant dipole impedance? How about just
> looking to see if a physical impedor exists? Those two impedances even
> have different definitions in the IEEE Dictionary.
>
>> Cecil, if you feel a need to expound yet more on your theories, please
>> do so in one of the many threads you've come to dominate already,
>> start a new one, or concentrate your efforts on your forthcoming QEX
>> article. I hope you'll let us try and make an objective and hopefully
>> helpful contribution from time to time on this newsgroup without your
>> constantly attempting to steer the discussion to your theories.
>
>
> Their not my theories, Roy. For instance,
> the IEEE Dictionary distinguishes between the (virtual) feedpoint
> impedance of a resonant antenna and the impedance of an impedor,
> e.g. a dummy load. Those two impedances have *different* definitions.
> A dummy load impedor is the *cause* of the load V/I ratio. The
> resistance of a resonant 50 ohm antenna is the *effect* of the
> feedpoint (superposed-V/superposed-I) ratio. Isn't it past time
> for completely ignoring cause and effect?

965. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:39:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <dB4re.66$gF6.3934322@news.sisna.com>
Source record: 75136

Here is one guy which considers "weaponizing" one, perhaps there is data
there you can use...
http://www.nettwerked.net/EM-HERF_Weapons_p1.txt

There used to be a webpage which showed, in quite some detail, one
hooked up to a hornfeed and used to attack neighbors in a new york
apartment... I can't find it now... the picture detail was excellent
though--had thought of constructing one to goof around with back then...

Warmest regards,
John

"Anchor" <anchorelectronics@sympatico.ca> wrote in message
news:pan.2005.06.12.23.11.54.893920@sympatico.ca...
> Any suggestions on how to build a 2.4 GHz CW transmitter with a
> microwave
> oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?
>
> There are tons of "pringle" or coffee can antennas or similar on the
> web.
> For example: http://flakey.info/antenna/waveguide or
> http://www.turnpoint.net/wireless/antennas/mycoffeecan.html
>
> I suppose one need only insert the magnetron antenna into the coffee
> can
> where one would normally mount the N-connector feed point.
>
> A labeled diagram of a microwave magnetron can be found at:
> http://www.gallawa.com/microtech/mag_test.html
>
> I suppose the metal coffee can has superior micro shielding properties
> relative to the aluminumized cardboard pringle can.
>
> Would I be better off with plumbing copper drain pipe from the stray
> RF
> exposure perspective?
>
> Since microwave magnetron use a half wave power supply, can I use two
> magnetrons in the same coffee can powered from a single AC HV
> transformer
> with a pair of HV rectifiers to feed alternate cycles to the
> magnetrons?
>
> Greg, VE0ACR

966. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:39:58 UTC
From: Dan Richardson <k6mhe>
Message-ID: <n2lpa1p4e9bnlu32abvbgvv5agsa1h5rgj@4ax.com>
Source record: 75131

On 12 Jun 2005 16:18:35 -0700, "Al" <Arrow146@aol.com> wrote:

>>For exactly the same reason that you need a choke on a ground plane or
>>any other antenna feed with coax. <sniped>
>
>>Danny, K6MHE
>
>I agree with the choke needed on a ground plane. But all antennas ?
>Sure you can put a choke on a OSJ won't hurt, won't help ether.
>Been there, done that.
>
>73 Al Lowe N0IMW

Allow me to repeat: *ANY* antenna feed with coax should employee a
choke. It is just good engineering practice.

If your beloved open base j-pole is feed with coax that is any
multiple of a 1/2-wavelength you ARE GOING TO HAVE HIGH COMMON MODE
CURRENT!

So just what makes you beleive that your open base j-pole has some
magical properties that is self-decouples itself from the feed line?

73
Danny, K6MHE

967. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:41:09 UTC
From: Jer <listme@listme.dsbl.org>
Message-ID: <FC4re.42583$ya2.38156@tornado.socal.rr.com>
Source record: 75132

Duh, I had a '54' vett with a stock six-banger, that was stock from the factory with a mostly fiberglass body..

The '55' vett's had a 265 cu in v8 and went quite a bit better.. 56 vett's still had the 265 and it wasn't until 57 that they changed to the hotty 283 with fuel injection and duntov cams.. Then they really went like stink shit!

Jer

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42acc71c$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> You are right on target, I would have to ask my dad, but back around 1960
>> he had a 1956 vet ... however, it did NOT seem gutless to me...
>
> The Corvette was introduced in 1955 with Chevy's old straight
> six engine. I remember it in a Mike Hammer movie, "Kiss Me Deadly".
> The 1956 models got that first short stroke V8 which was the
> grandfather of the engine in my daughter's 2003 Chevy Tahoe.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

968. Re: Question on MFJ Telescope mast

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:45:27 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <HG4re.2837$Cr.2121@fed1read07>
Source record: 75133

Try this telescoping mast from DK9SQ via US Dealer -- Kanga
http://www.bright.net/~kanga/kanga/dk9sq/mast.htm

Lot sturdier than MFJ -- we used one for a 20M inverted vee at field day

Or a tail gate flag pole
http://www.flagsexpress.com/poles/pole_04.htm

I use the 20 footer coupled to a swimming pool pole to make a 32 foot
vertical for field day
Uses four 32 foot drooping radials. Tis flat across the entire 40 meter
band -- works on 15M of course

--
CL -- I doubt, therefore I might be !

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
news:8x2re.3235$hK3.961@newsread3.news.pas.earthlink.net...
> Hi Ed -
>
> I have never seen one of the MFJs, but I was also interested.
>
> When I asked about them at my friendly local HRO, I was told
> that they're as flexible as a fishing pole near the end, and that
> I probably wouldn't be happy if I actually tried to hold anything
> up with one. Although disappointed, I took their word for it,
> and passed.
>
> 73, Ed, W6LOL
>
> "Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
> news:Xns9671B1E0C1223spectrumhogstarbandn@207.106.93.175...
>>
>> Does anyone here have an MFJ telescoping antenna mast, model MFJ 1910?
>> I have a 30' no-name mast marketed as a flag mast for RV'ers. At full
>> extension it bends quite a bit at the top when supporting an 80M inverted
> V
>> / Dipole of #14 copperweld. My question is, does the MFJ antenna mast
>> bend a lot under similar circumstances?
>>
>>
>> Ed K7AAT
>
>

969. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 00:56:38 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <fR4re.12344$6s.11049@fed1read02>
Source record: 75134

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Why do so few correspondents on newsgroups give their real names and
> call signs?
>
> Why the hidden secrets?
>
> People should be proud of their call signs.
>
> Or do radio amateurs suffer from inferiority complexes.
>
> Back to SWR.
> ----
> Reg, G4FGQ
>
>

There have been some replies which provide good reasons (spam & crank avoidance) and some lesser reasons (fear of data correlation and/or "big brother" snooping) to hide one's identity.

OTOH, I have found that familiarity encourages and supports civility. Maybe the human psyche needs an occasional Halloween, Day of the Dead, Masquerade Ball (or whatever your local culture defines) as a safety valve. But on a daily basis, I am quite uncomfortable with being asked to talk with someone who feels the need to cloak their identity.

Thus, if you identify yourself with something like Wonkawonka or AntennaWizzard, you place yourself at a disadvantage in my opinion of you. You will have to exhibit true and consistent brilliance and honesty to climb out of my initial negative evaluation of your worth.

You have a choice to identify, and I have a choice to form an evaluation of your choices. How could anything be fairer and more fun?

--
Ed
WB6WSN
El Cajon, CA USA

970. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 01:14:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h3npa1p1m61igtt45l7lin7ht7geepb848@4ax.com>
Source record: 75135

On 12 Jun 2005 15:58:04 -0700, "redhat" <aezzat1@gmail.com> wrote:
>an error occured

Hi OM,

As I pointed out some time ago, your work is very far off track.

It would be far simpler to start with a working design and change it
slightly to observe how your input effects the results.

Simply hit the Open button and select:
VERT1.EZ
and look at ALL the characteristics. This may mean starting a
notebook (standard Engineering discipline) and logging those values.
Make a change (like shorten or lengthen the ONLY wire) and look at ALL
the characteristics. Log those values and compare to the first.

Keep doing this and eventualy you will find that
>the velocity factor of the wire
is not very significant - or better yet, discover what significance it
has (it will eventually become significant, but not practically so)
and report your results here.

73's
Richard Clark, KB7QHC

971. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 02:05:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HR5re.71$rp7.4229221@news.sisna.com>
Source record: 75139

Ed:

Yes. Much difference in ones "attack upon the world", I respect your right to having yours, please respect mine...

I always enjoy going to new places and meeting new people. I have no apprehension of people I don't know--if they are interesting I will attempt to know them--if not, they are best left as is...

My anonymity servers me quite well... I wish no recognition for my call, my name, my age, my birthright, my bloodline, etc...

I do not seek to know others identity, a nick is good enough, I will judge their words upon the words use to myself, and if the individual is able to formulate it in a method which is conductive to being understood simply (quotes of Shakespeare fails this test)... although others state different methods in handling this and, while I will refrain from judgment in using other methods, my methods have served me well for many years.

Frankly, I have nothing important to impart to anyone--I have my observations, views, beliefs, methods, etc... but I am here to pick up knowledge rather than give... I am NOT an antenna guru... I study the humble 1/2 wave vertical in great detail simply because it if of use to me... if I offer "what I think I know" and it is in error--well darn, what a perfect excuse to get the proper knowledge out, don't you think? I am sure someone will correct it...

If you think me a danger and wanting to do "ego battle" with those egos here big enough to fill a room--I am not, if you don't believe me, wait until I give you reason to reprimand me and at that time give me a good "butt kicking."

I DON'T think even the simple antenna is well understood... that is in having a "complete understanding" of it... I will use what formulas there is available and be darn thankful they work as well as they do... however, I think there is more to all this than meets the eye...

And what can I say, I believe in the ether. If that opens me up to ridicule and having fun poked at me--so be it... actually, I wish to know more about it than the metal contraptions men build to interface with the darn mysterious stuff!!! I am disappointed no books I have found deal with it in a meaningful way which has practical implications to them...

And, on my failings, I can have a "sharp tongue", but don't fear it, it is only a tool to provoke meaningful thought and discussion--I have no

real interest in abusing others with it--abusing others does nothing for me--I'd sooner have a friend than an enemy... but if ideas must be gained in an adversarial forum--again, so be it...

I am a geek that likes quiet places and to think, really, all I want to do is think and build models in my mind... I also just happen to like to experiment with antennas...

Warmest regards,
John

"Ed Price" <edprice@cox.net> wrote in message
news:fR4re.12344$6s.11049@fed1read02...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:d8gouk$1h4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> Why do so few correspondents on newsgroups give their real names and
>> call signs?
>>
>> Why the hidden secrets?
>>
>> People should be proud of their call signs.
>>
>> Or do radio amateurs suffer from inferiority complexes.
>>
>> Back to SWR.
>> ----
>> Reg, G4FGQ
>>
>>
>
> There have been some replies which provide good reasons (spam & crank
> avoidance) and some lesser reasons (fear of data correlation and/or
> "big brother" snooping) to hide one's identity.
>
> OTOH, I have found that familiarity encourages and supports civility.
> Maybe the human psyche needs an occasional Halloween, Day of the Dead,
> Masquerade Ball (or whatever your local culture defines) as a safety
> valve. But on a daily basis, I am quite uncomfortable with being asked
> to talk with someone who feels the need to cloak their identity.
>
> Thus, if you identify yourself with something like Wonkawonka or
> AntennaWizzard, you place yourself at a disadvantage in my opinion of
> you. You will have to exhibit true and consistent brilliance and
> honesty to climb out of my initial negative evaluation of your worth.
>
> You have a choice to identify, and I have a choice to form an
> evaluation of your choices. How could anything be fairer and more fun?
>
> --
> Ed

> WB6WSN
> El Cajon, CA USA
>
>

972. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 02:08:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <xU5re.72$io7.4216944@news.sisna.com>
Source record: 75140

Richard:

That was uncommonly decent of you, it is good to see one man giving
another a "hand up."

Also, it is excellent advice I failed to even think of telling him...

Warmest regards,
John

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:h3npa1p1m61igtt45l7lin7ht7geepb848@4ax.com...
> On 12 Jun 2005 15:58:04 -0700, "redhat" <aezzat1@gmail.com> wrote:
>>an error occured
>
> Hi OM,
>
> As I pointed out some time ago, your work is very far off track.
>
> It would be far simpler to start with a working design and change it
> slightly to observe how your input effects the results.
>
> Simply hit the Open button and select:
> VERT1.EZ
> and look at ALL the characteristics. This may mean starting a
> notebook (standard Engineering discipline) and logging those values.
> Make a change (like shorten or lengthen the ONLY wire) and look at ALL
> the characteristics. Log those values and compare to the first.
>
> Keep doing this and eventualy you will find that
>>the velocity factor of the wire
> is not very significant - or better yet, discover what significance it
> has (it will eventually become significant, but not practically so)
> and report your results here.
>
> 73's
> Richard Clark, KB7QHC

973. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 03:29:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6890$42acfd8d$97d55d24$16888@ALLTEL.NET>
Source record: 75137

Memory check failure, no aluminium body on a Corvette.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:yU2re.52$dK2.2542729@news.sisna.com...
> Roy:
>
> You are right on target, I would have to ask my dad, but back around
> 1960 he had a 1956 vet (if I remember the year correctly--it was a 4
> speed--again, if I remember correctly--that is really pressing my memory
> though--could easily be wrong)... it was an all aluminum body (sure

974. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 03:36:50 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <cf30c$42acff54$97d55d24$17291@ALLTEL.NET>
Source record: 75138

In 1955 the Corvette was available with either the "bluestreak" 235 CI 6 ot
the new 265 V-8 the 350 was a ways in the future :>)

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42acc411$1_1@spool9-west.superfeed.net...
> Roy Lewallen wrote:
> > Turns out that the first couple of 'vettes
> > weren't muscle cars at all, but gutless wonders with a small engine and
> > two-speed automatic transmission -- it took a while to evolve. I don't
> > recall for sure, but think it's likely those were metal.
>
> Don't know about the body but it had virtually the same 6 cyl
> engine and transmission as my uncle's 1955 Chevy Bel Aire.
> Chevy introduced the V8 (350 in^3?) in 1956 and that's when
> it went into the Corvette and into all those Chevys that broke
> all the records that year.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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975. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:07:51 UTC
From: nm5k@wt.net
Message-ID: <1118635671.616341.226940@f14g2000cwb.googlegroups.com>
Source record: 75141

What are you disagreeing with? How much DX do you work with
your NVIS antenna? Do you really think the majority of hams
are only interested in local communications on HF?

Some are...Most work only the low bands...I know many
hams who couldn't care less about dx. They only talk to
other regional "good ole boys"....
But saying that, comparing a G5RV at 50 ft, against a
dipole at 7 ft, is fairly silly. The NVIS qualities are more
due to height above ground per wavelength, than the
length of the antenna.
Overall, I think the idea of running low dipoles, or using
ground screens, and pseudo "reflectors" etc, are
generally a waste of time.. If I were working NVIS on 75m,
I'd prefer a dipole at 50ft over one at 7 ft. It will have lower
ground losses, and I'd be willing to bet the NVIS performance
would be just as good as the low antenna. But, the medium
range performance would be a good bit better. Also, you
can work dx also...I've worked dx on 75m, using a dipole
at 35 ft...It's no big deal really...Just finding the DX to talk to
is more difficult. Also...NVIS antennas are not low noise,
unless they are defective in some way...They may reduce
the reception of far off lightning, if that static arrives at
low angles.. A low dipole has great reception of noise...
Straight up....A low to medium height dipole already has
enough gain straight up. I don't really want to enhance it
further...I also want to have decent performance on longer
paths...Listen to all the BIG strappers on 75m...I bet very few
are running real low dipoles with screens...Most will be running
higher dipoles hung from towers, trees, etc...
MK

976. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:09:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad07ce$1_2@spool9-west.superfeed.net>
Source record: 75142

Ralph Mowery wrote:
> The 327 was not offered tuil the 1962 modle came out.

Yep, the 1956 Corvette V8 was 265 ci but could develop
225 hp. The 1956 Chevy V8 was the first stock Chevy that
could out drag my 1949 Chevy with a GMC truck motor.
--
73, Cecil http://www.qsl.net/w5dxp

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977. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:14:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad08fa$1_1@spool9-west.superfeed.net>
Source record: 75143

Al wrote:

>>He means the bottom of the stub is the feedpoint, like this:
>>
>>+-----------------x---
>>|
>>FP
>>|
>>+-----------------y
>>
>>And that looks like an unbalanced feedpoint so it should result
>>in common-mode currents, sorta like an off center-fed dipole.
>
> Not quite. Look closer - http://www.arrowantennas.com/j-pole.html
> You assume it should result in common-mode currents.
> And you know what happens when you Ass u me.

Would you agree this is a 2m Zepp? Zepps are known to have
common mode currents. We know the current at point 'x' is
not the same as the current at point 'y'.
--
73, Cecil http://www.qsl.net/w5dxp

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978. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:16:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad098a$1_1@spool9-west.superfeed.net>
Source record: 75144

Roy Lewallen wrote:
> It's really a shame -- on those rare instances where you can be coaxed
> into commenting without being compelled to steer the subject to your
> favorite obsession, you really do have a lot to offer. But the duty
> cycle is just too low -- it's not worth it to me. Bye.

Well, before you go, Roy, chew on this one. The s11 reflection
coefficient at the feedpoint of a 1/2WL dipole is about 0.85
--
73, Cecil http://www.qsl.net/w5dxp

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979. Re: Antenna Ground

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:18:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad09f6$1_1@spool9-west.superfeed.net>
Source record: 75145

Jer wrote:
> Duh, I had a '54' vett with a stock six-banger, that was stock from the
> factory with a mostly fiberglass body..

You're right. I was off by a year.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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980. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:22:05 UTC
From: nm5k@wt.net
Message-ID: <1118636525.879865.45180@g43g2000cwa.googlegroups.com>
Source record: 75146

in designing a monopole should i use the velocity factor of the wire
in
the equation or not?

No...It's silly...Do you check the VF of wire when you
build a dipole? It's overkill worrying....The VF of straight
wire is in the 95+ range...Not enough to worry about...

and if i want its impedance to be 50ohm should i
use a matching network or is there another way?

There is no other way. If you want to build a 1/8 wave
vertical, build it the same way you would build a mobile
vertical. If not top loaded with a hat, you should use a
loading coil at 1/2 to 3/4 up the vertical for best efficiency.
You would use a matching device of the same type used
for most mobiles. If you want to tinker with vertical design,
I'd try something like Reg's "vertload" to design the antenna.
It will tell the appx efficiency of the design, and also give you the
values needed for a matching device, which can be a simple
coil or cap depending how you set it up. Then, after that is
done, you can try modeling it. Short vertical design is quite
mature...You are not going to be able to reinvent the wheel...
MK

981. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:29:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad0ca3$1_1@spool9-west.superfeed.net>
Source record: 75147

Cecil Moore wrote:

> Roy Lewallen wrote:
>> It's really a shame -- on those rare instances where you can be coaxed
>> into commenting without being compelled to steer the subject to your
>> favorite obsession, you really do have a lot to offer. But the duty
>> cycle is just too low -- it's not worth it to me. Bye.

I apologize for barbecuing those sacred cows.

> Well, before you go, Roy, chew on this one. The s11 reflection
> coefficient at the feedpoint of a 1/2WL dipole is about 0.85
when fed with 50 ohm coax.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

982. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:40:44 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9673DCB0378DEspectrumhogstarbandn@207.106.93.175>
Source record: 75148

> What are you disagreeing with? How much DX do you work with
> your NVIS antenna? Do you really think the majority of hams
> are only interested in local communications on HF?

As you may have missed previously, my comments were directed from the standpoint of a 75M/40M operator. Personally, I don't consider a NVIS antenna a valid antenna above those bands. So, for the two bands I have in mind, Yes, I believe the majority of operators there are interested in local/intra-state communications.

Ed

983. Re: Interesting Cloud Burner Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 04:57:23 UTC
From: Buck <iam@this.site>
Message-ID: <1v3qa1h7oiicn0kclk99co7s4fhlucdqe8@4ax.com>
Source record: 75149

On Sat, 11 Jun 2005 06:39:12 GMT, William Taylor
<zach56@bellsouth.net> wrote:

>http://www.hamuniverse.com/supernvis.html
>
>The claim is that a dipole 7 feet off the ground has
>a 10db gain over a G5RV at 50 feet.
>
>Is that possible, or hype?

I'll take a stab at it. First of all, its objective is to create
nulls at low-take-off angles so shortwave broadcast stations will not
have so much noise. The antenna is a 300 ohm folded dipole that is
fed with 50 ohms but then the antenna has a reflector on the ground.
It is effectively a 2-element yagi pointed strait up (give or take a
few degrees at the user's choosing.)

I don't think a two element beam has a 10 db gain, but I don't know
the gain of a G5RV on the same frequency. Presumably, the signal
strength of local signals will improve and DX or broadcast stations
will drop.

This is known as a Near Vertical Incidence (I forget the 's') antenna.
Great for operating local districts on 160-30 meters. If the dipole
is raised high enough, it will be just a dipole, but then it will be
mis-matched to the feedline and have considerable loss.

This is my theory, correct me if I am wrong

--
73 for now
Buck
N4PGW

984. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 05:18:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <7H8re.79$NI2.5251091@news.sisna.com>
Source record: 75152

... deep within the pits of-- rec.radio.amateur.antenna.hell-- John Smith moves over on the bench, making room for Cecil...

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42ad0ca3$1_1@spool9-west.superfeed.net...
> Cecil Moore wrote:
>
>> Roy Lewallen wrote:
>>> It's really a shame -- on those rare instances where you can be
>>> coaxed into commenting without being compelled to steer the subject
>>> to your favorite obsession, you really do have a lot to offer. But
>>> the duty cycle is just too low -- it's not worth it to me. Bye.
>
> I apologize for barbecuing those sacred cows.
>
>> Well, before you go, Roy, chew on this one. The s11 reflection
>> coefficient at the feedpoint of a 1/2WL dipole is about 0.85
> when fed with 50 ohm coax.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> >100,000 Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

985. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 05:20:27 UTC
From: Buck <iam@this.site>
Message-ID: <go5qa1pknjaaocj37a88b5kh7gbsetupv1@4ax.com>
Source record: 75150

On Sun, 12 Jun 2005 07:41:09 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Why do so few correspondents on newsgroups give their real names and
>call signs?
>
>Why the hidden secrets?
>
>People should be proud of their call signs.
>
>Or do radio amateurs suffer from inferiority complexes.
>
>Back to SWR.
>----
>Reg, G4FGQ
>

I have had this nick-name longer than my real one, so I don't suppose
I am hiding my real one, I just prefer this one. On the other hand,
if you meet me on the ham bands, you may recognize me as I use the
same call sign and name there.

PS.I can only answer for myself and for those who have given me the
authority or ability.

72

--
73 for now
Buck
N4PGW

986. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 05:31:13 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <AS8re.82$rH1.4940848@news.sisna.com>
Source record: 75151

Buck:

I'd quite imagine a "buck" by any other name--still a buck....
<looking-through-rose-colored-glasses>

Warmest regards,
John

"Buck" <iam@this.site> wrote in message
news:go5qa1pknjaaocj37a88b5kh7gbsetupv1@4ax.com...
> On Sun, 12 Jun 2005 07:41:09 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Why do so few correspondents on newsgroups give their real names and
>>call signs?
>>
>>Why the hidden secrets?
>>
>>People should be proud of their call signs.
>>
>>Or do radio amateurs suffer from inferiority complexes.
>>
>>Back to SWR.
>>----
>>Reg, G4FGQ
>>
>
>
> I have had this nick-name longer than my real one, so I don't suppose
> I am hiding my real one, I just prefer this one. On the other hand,
> if you meet me on the ham bands, you may recognize me as I use the
> same call sign and name there.
>
> PS.I can only answer for myself and for those who have given me the
> authority or ability.
>
> 72
>
> --
> 73 for now
> Buck
> N4PGW

987. Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 06:08:00 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <1p9re.84$lv3.5397608@news.sisna.com>
Source record: 75155

I pictured this, I am in a spacecraft doing the speed of light, I key the xmitter and begin a long winded rant, the antenna is monopole.

Now the signal leaving the rear of the antenna appears to be leaving it at 2X the speed of light (allowing for the VF of space-ether), however, the signal off the very front, at least the width of the antenna conductor itself, cannot leave (since I am traveling at the speed of light the signal appears to just stay on the surface of the conductor)--what will happen?

Warmest regards,
John
--
Watching the cutting edge of yesterday replay--in virtual reality, right before my eyes--in real time!
Thirty year old technology--wasn't it amazing?

988. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 06:39:08 UTC
From: nm5k@wt.net
Message-ID: <1118644748.943916.304240@g49g2000cwa.googlegroups.com>
Source record: 75153

Not quite. Look closer - http://www.arrowantennas.com/j-pole.html
You assume it should result in common-mode currents.
And you know what happens when you Ass u me.

But....Common mode current on the feedline can't be avoided
no matter how the antenna is fed. I agree that the antenna is
quite usable without decoupling, and I've found that the 1/2 WL
ringo's usual "gamma loop" feed is also fairly good as far as that.
But there is no way to totally avoid all currents, without some form
of decoupling. If you believe you can, try some tests adding decoupling
sections. If you don't see an increase in performance, I would
be *very* surprised. In some cases, it's possible for the currents
to add, and produce a gain at low angles, but it's fairly unlikely.
Most of the time, the pattern is skewed upwards. It takes at least
two decoupling sections to fully decouple an elevated vertical.
To me, you have none, although maybe you could argue that your
feed of feeding qualifies as a first decoupling section...Lets say
you win, and this is the case...You still need one more, if you
want to be fully decoupled... If you believe you are now, I'd be
willing to bet you are deluding yourself.
Thats not to say the antenna doesn't work ok as is...I'm sure it
probably does, except the most retentive of users...I've used
loads of halfwaves with no decoupling...But those were all on 10m,
where it's not so critical. BTW...The results of adding decoupling
sections will vary from user to user, depending on their lines.
But if the antenna is totally decoupled, the amount of current will
be the appx same for any user, no matter feed length.
When I say total, I mean as much as practical. I don't believe you
can totally eliminate all current. There will always be a small
amount.
I doubt I would change the antenna....Would make it cost more...
I'd consider a super deluxe version for a higher price, if they wanted
full 2 section decoupling...:/ And if I went that far, I'd use a dual
5/8 design to get more gain. You'd be reinventing the isopole...:/
MK

989. Re: Question on MFJ Telescope mast

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 07:02:57 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <evdtmXEh+SrCFA7r@ifwtech.co.uk>
Source record: 75154

>"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
>news:Xns9671B1E0C1223spectrumhogstarbandn@207.106.93.175...
>>
>> Does anyone here have an MFJ telescoping antenna mast, model MFJ 1910?
>> I have a 30' no-name mast marketed as a flag mast for RV'ers. At full
>> extension it bends quite a bit at the top when supporting an 80M inverted
>V
>> / Dipole of #14 copperweld. My question is, does the MFJ antenna mast
>> bend a lot under similar circumstances?

>I have never seen one of the MFJs, but I was also interested.
>
>When I asked about them at my friendly local HRO, I was told
>that they're as flexible as a fishing pole near the end, and that
>I probably wouldn't be happy if I actually tried to hold anything
>up with one. Although disappointed, I took their word for it,
>and passed.

If the MFJ is like the DK9SQ pole, it will be very flexible at the top. One section down from the top, at about 29ft, the DK9SQ *will* hold up a G5RV - but only if the whole antenna is ultra-lightweight.

Don't even think about the typical #14 dipole with big, heavy insulators! The pole won't hold one of those above the 20-25ft level. My GM5RV/P is made of thin hookup wire with a lightweight center insulator (a small plastic box that drops over the top section). End insulators are simply the monofilament fishing line that continues on down to the tie-offs.

Obviously the pole will bend over at the top, and it's an art to get everything tied off and tensioned just right. You have to accept that the whole thing will wave around in even the slightest breeze... but it will also ride out a full gale.

If you want these poles to stay up, you have to twist each joint into place as hard as you can, and fix it with PVC tape. If you don't, the back-and-forth leverage of the wind will loosen the joints, and then the top part of the pole can slam down into the lower part causing damage.

But having said all that, these flexible lightweight poles can get a temporary inverted-V into the air in places that would otherwise be impossible.

Has anyone tried the new 40ft pole from Spiderbeam in Germany? This looks much better: http://www.spiderbeam.net then click on "Heavy duty fibreglass poles".

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

990. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 09:34:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Hqcre.88$zR5.5895276@news.sisna.com>
Source record: 75157

Ok, no takers so far, and since I am having trouble sleeping...

I remount the xmitter in the space craft...
Now the rear of the xmitter is facing the rear of the spacecraft--and
the antenna just happens to be back there at the rear of the spacecraft
too... we continue at the speed of light...

But now, the signal is shot through the coax at 2x times the speed of
light (due to its speed through the coax, combined with the fact that
the coax is traveling at the speed of light and the signal travels in an
opposite direction through that coax)... the signal now strikes that
antenna at 2x the speed of light and is able to leave the front of the
antenna at 1X the speed of light! ...or, does it?

But, suddenly I notice a problem at the front of the spacecraft and, it
is dark up there... no problem, I grab my trusty flashlight, point it at
the front of the spacecraft and turn it on... but, big problem, the
front of the spacecraft remains dark... I move the flashlight and notice
a bunch of light photons hanging in the air right where I had been
holding the flashlight... unable to overtake the speed of light I am
traveling at!!! Indeed, it is getting pretty darn bight inside this
spacecraft now, as no forward light is able to travel forward and be
reflected or absorbed...

My co-pilot suddenly says, "That is impossible! The flashlight is
traveling at the speed of light, any light it gives off has to be
traveling at 2X the speed of light and can go forward--those photons
cannot possibly be there hanging in midair!"

To which, I respond, "Nothing can go faster than the speed of light,
fool!" <grin>

(I just threw in the "fool" for effect... the co-pilot knew I was
kidding)

... maybe I can sleep now...

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:1p9re.84$Iv3.5397608@news.sisna.com...
>I pictured this, I am in a spacecraft doing the speed of light, I key
>the xmitter and begin a long winded rant, the antenna is monopole.
>
> Now the signal leaving the rear of the antenna appears to be leaving
> it at 2X the speed of light (allowing for the VF of space-ether),

> however, the signal off the very front, at least the width of the
> antenna conductor itself, cannot leave (since I am traveling at the
> speed of light the signal appears to just stay on the surface of the
> conductor)--what will happen?
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality,
> right before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

991. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 09:45:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <YAcre.89$3z5.5842010@news.sisna.com>
Source record: 75156

... by the way, since I am traveling at the speed of light--a
"reflected" current on the coax is impossible... perfect balun really...
<grin>

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Hqcre.88$zR5.5895276@news.sisna.com...
> Ok, no takers so far, and since I am having trouble sleeping...
>
> I remount the xmitter in the space craft...
> Now the rear of the xmitter is facing the rear of the spacecraft--and
> the antenna just happens to be back there at the rear of the
> spacecraft too... we continue at the speed of light...
>
> But now, the signal is shot through the coax at 2x times the speed of
> light (due to its speed through the coax, combined with the fact that
> the coax is traveling at the speed of light and the signal travels in
> an opposite direction through that coax)... the signal now strikes
> that antenna at 2x the speed of light and is able to leave the front
> of the antenna at 1X the speed of light! ...or, does it?
>
> But, suddenly I notice a problem at the front of the spacecraft and,
> it is dark up there... no problem, I grab my trusty flashlight, point
> it at the front of the spacecraft and turn it on... but, big problem,
> the front of the spacecraft remains dark... I move the flashlight and
> notice a bunch of light photons hanging in the air right where I had
> been holding the flashlight... unable to overtake the speed of light I
> am traveling at!!! Indeed, it is getting pretty darn bight inside
> this spacecraft now, as no forward light is able to travel forward and
> be reflected or absorbed...
>
> My co-pilot suddenly says, "That is impossible! The flashlight is
> traveling at the speed of light, any light it gives off has to be
> traveling at 2X the speed of light and can go forward--those photons
> cannot possibly be there hanging in midair!"
>
> To which, I respond, "Nothing can go faster than the speed of light,
> fool!" <grin>
>
> (I just threw in the "fool" for effect... the co-pilot knew I was
> kidding)
>
> ... maybe I can sleep now...
>

> Warmest regards,
> John
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:1p9re.84$Iv3.5397608@news.sisna.com...
>>I pictured this, I am in a spacecraft doing the speed of light, I key
>>the xmitter and begin a long winded rant, the antenna is monopole.
>>
>> Now the signal leaving the rear of the antenna appears to be leaving
>> it at 2X the speed of light (allowing for the VF of space-ether),
>> however, the signal off the very front, at least the width of the
>> antenna conductor itself, cannot leave (since I am traveling at the
>> speed of light the signal appears to just stay on the surface of the
>> conductor)--what will happen?
>>
>> Warmest regards,
>> John
>> --
>> Watching the cutting edge of yesterday replay--in virtual reality,
>> right before my eyes--in real time!
>> Thirty year old technology--wasn't it amazing?
>>
>>
>
>

992. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 11:24:11 UTC
From: Dave <noone@nowhere.com>
Message-ID: <lJWdnbVhMIIA8TDfRVn-sw@crocker.com>
Source record: 75158

you might want to try this on sci.physics.relativity, they like pointing out
all the errors in your logic when you start with impossible conditions.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:YAcre.89$3z5.5842010@news.sisna.com...
> ... by the way, since I am traveling at the speed of light--a "reflected"
> current on the coax is impossible... perfect balun really... <grin>
>
> John
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:Hqcre.88$zR5.5895276@news.sisna.com...
>> Ok, no takers so far, and since I am having trouble sleeping...
>>
>> I remount the xmitter in the space craft...
>> Now the rear of the xmitter is facing the rear of the spacecraft--and the
>> antenna just happens to be back there at the rear of the spacecraft
>> too... we continue at the speed of light...
>>
>> But now, the signal is shot through the coax at 2x times the speed of
>> light (due to its speed through the coax, combined with the fact that the
>> coax is traveling at the speed of light and the signal travels in an
>> opposite direction through that coax)... the signal now strikes that
>> antenna at 2x the speed of light and is able to leave the front of the
>> antenna at 1X the speed of light! ...or, does it?
>>
>> But, suddenly I notice a problem at the front of the spacecraft and, it
>> is dark up there... no problem, I grab my trusty flashlight, point it at
>> the front of the spacecraft and turn it on... but, big problem, the front
>> of the spacecraft remains dark... I move the flashlight and notice a
>> bunch of light photons hanging in the air right where I had been holding
>> the flashlight... unable to overtake the speed of light I am traveling
>> at!!! Indeed, it is getting pretty darn bight inside this spacecraft
>> now, as no forward light is able to travel forward and be reflected or
>> absorbed...
>>
>> My co-pilot suddenly says, "That is impossible! The flashlight is
>> traveling at the speed of light, any light it gives off has to be
>> traveling at 2X the speed of light and can go forward--those photons
>> cannot possibly be there hanging in midair!"
>>
>> To which, I respond, "Nothing can go faster than the speed of light,
>> fool!" <grin>
>>

>> (I just threw in the "fool" for effect... the co-pilot knew I was
>> kidding)
>>
>> ... maybe I can sleep now...
>>
>> Warmest regards,
>> John
>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:1p9re.84$Iv3.5397608@news.sisna.com...
>>>I pictured this, I am in a spacecraft doing the speed of light, I key the
>>>xmitter and begin a long winded rant, the antenna is monopole.
>>>
>>> Now the signal leaving the rear of the antenna appears to be leaving it
>>> at 2X the speed of light (allowing for the VF of space-ether), however,
>>> the signal off the very front, at least the width of the antenna
>>> conductor itself, cannot leave (since I am traveling at the speed of
>>> light the signal appears to just stay on the surface of the
>>> conductor)--what will happen?
>>>
>>> Warmest regards,
>>> John
>>> --
>>> Watching the cutting edge of yesterday replay--in virtual reality, right
>>> before my eyes--in real time!
>>> Thirty year old technology--wasn't it amazing?
>>>
>>>
>>
>>
>
>

993. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 11:29:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <D6mdnbxeL9CT8zDfRVn-rw@crocker.com>
Source record: 75159

a pringle 'can' would probably arc and burn up. i would really worry about side/rear lobes with coffee can antennas, even a minor lobe when working with kw levels at those frequencies could do some real damage in a short time... and reflections off nearby objects of the main lobe could really do a job on you. remember what those things are meant to do and be darn sure you don't end up looking like a bag of popcorn.

"Anchor" <anchorelectronics@sympatico.ca> wrote in message news:pan.2005.06.12.23.11.54.893920@sympatico.ca...
> Any suggestions on how to build a 2.4 GHz CW transmitter with a microwave
> oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?
>
> There are tons of "pringle" or coffee can antennas or similar on the web.
> For example: http://flakey.info/antenna/waveguide or
> http://www.turnpoint.net/wireless/antennas/mycoffeecan.html
>
> I suppose one need only insert the magnetron antenna into the coffee can
> where one would normally mount the N-connector feed point.
>
> A labeled diagram of a microwave magnetron can be found at:
> http://www.gallawa.com/microtech/mag_test.html
>
> I suppose the metal coffee can has superior micro shielding properties
> relative to the aluminumized cardboard pringle can.
>
> Would I be better off with plumbing copper drain pipe from the stray RF
> exposure perspective?
>
> Since microwave magnetron use a half wave power supply, can I use two
> magnetrons in the same coffee can powered from a single AC HV transformer
> with a pair of HV rectifiers to feed alternate cycles to the magnetrons?
>
> Greg, VE0ACR

994. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 11:47:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad734b$1_2@spool9-west.superfeed.net>
Source record: 75160

John Smith wrote:
> ... deep within the pits of-- rec.radio.amateur.antenna.hell-- John
> Smith moves over on the bench, making room for Cecil...

I guess some religions forbid barbecuing sacred cows.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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995. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 12:03:03 UTC
From: Anchor <anchorelectronics@sympatico.ca>
Message-ID: <pan.2005.06.13.12.03.00.480859@sympatico.ca>
Source record: 75163

On Sun, 12 Jun 2005 17:39:36 -0700, John Smith wrote:

> Here is one guy which considers "weaponizing" one, perhaps there is data
> there you can use...
> http://www.nettwerked.net/EM-HERF_Weapons_p1.txt
>
> There used to be a webpage which showed, in quite some detail, one
> hooked up to a hornfeed and used to attack neighbors in a new york
> apartment... I can't find it now... the picture detail was excellent
> though--had thought of constructing one to goof around with back then...
>
> Warmest regards,
> John

That web site is a joke, isn't it???

996. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 12:08:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad783b$1_1@spool9-west.superfeed.net>
Source record: 75161

John Smith wrote:

> I pictured this, I am in a spacecraft doing the speed of light, I key
> the xmitter and begin a long winded rant, the antenna is monopole.
>
> Now the signal leaving the rear of the antenna appears to be leaving it
> at 2X the speed of light ...

The Doppler effect doesn't change the speed of light, only
the frequency. All EM waves appear to all observers to
travel at the speed of light.

>(allowing for the VF of space-ether), however,
> the signal off the very front, at least the width of the antenna
> conductor itself, cannot leave ...

It doesn't appear that way to you. For you, time has stopped
but you don't know it. You also possess infinite mass and occupy
zero volume but you don't know it.

>(since I am traveling at the speed of
> light the signal appears to just stay on the surface of the
> conductor)--what will happen?

It would make more sense to assume that you are traveling at
1/2 the speed of light and see what happens. Future humans
may be able to do just that. Assume you have a twin brother
back on earth QSOing with you. He's transmitting in a ham
band. What frequency do you hear him on?
--
73, Cecil http://www.qsl.net/w5dxp

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997. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 12:12:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ad7928$1_1@spool9-west.superfeed.net>
Source record: 75162

John Smith wrote:
> ... by the way, since I am traveling at the speed of light--a
> "reflected" current on the coax is impossible... perfect balun really...
> <grin>

Since you are traveling at the speed of light, everything,
including your brain, stops working.
--
73, Cecil http://www.qsl.net/w5dxp

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998. Re: monopole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 12:27:45 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <pkuqa1h79eofap1p6v68ra0adcecskkmec@4ax.com>
Source record: 75164

On 12 Jun 2005 15:37:32 -0700, "redhat" <aezzat1@gmail.com> wrote:

>the ground was set to "free space" and when i selected "perfect" ground
>an error occured "one or more wires extended into or lying on the
>ground", the problem was that in the wire coordinates z was set to 0
>,when i selected a different z the problem was solved but the voltage
>is still high, the antenna will be placed 90 deg. to the ground plane
>so what should be z value? the source is placed 0% from E1
>(monopole).note: i can't upload the file rightnow

Why don't you move the source to the bottom (ground) end of the
monopole? I'm guessing that E1 is the top of the vertical.

Use "View Antenna" to see for sure. You can use Z=0 if you use
MiniNEC ground.

999. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 13:26:04 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <MPfre.46508$_o.8094@attbi_s71>
Source record: 75165

> Since you are traveling at the speed of light, everything,
> including your brain, stops working.
> --
> 73, Cecil http://www.qsl.net/w5dxp

And here I was, wondering what the problem could possibly be.

W4ZCB

1000. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 13:36:33 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <0i1ra11da9t06fahh8k7sm4mv3t34vnb3j@4ax.com>
Source record: 75166

On 12 Jun 2005 15:44:18 -0700, "Al" <Arrow146@aol.com> wrote:

>>Hm, why is that? How does an open stub prevent coupling from the antenna
>>to the feedline?
>
>>Roy Lewallen, W7EL
>
>I was hoping we would not have to go through this AGAIN.
>
>The typical J-Pole (Closed Stub) was designed to feed with open feed
>line. Because Hams insist on feeding it with coax, a Band-Aid is
>needed to choke off feed line radiation & common mode currents.
>The Open Stub J-Pole was designed to feed with coax. So it don't need
>the Band Aid.
>The difference between the two is discussed in several antenna books.
>Just ask anyone the owns one.
>(http://www.eham.net/reviews/detail/1613)
>Besides your (sic) the antenna expert, tell us why it would.

Careful Roy, you're goring a commercial ox.

Al, you have some really ingenious machinery and your products look to
be well made. But you should probably stick to machining and hire two
more folks: one to do antenna design and another to write copy and
manage your web site.

With just a cursory look I see that you sell "beems" instead of
"beams" and a claim that corner reflectors work better on packet than
do Yagis is pure snake oil.

Simply modeling your super J-pole and adding a third element to
represent the transmission line would show that the line radiates like
crazy and affects the feedpoint Z.

1001. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 14:06:39 UTC
From: Dan Richardson <k6mhe>
Message-ID: <f74ra1hquig39m9nenge9hvughr1kt30r5@4ax.com>
Source record: 75167

On 12 Jun 2005 23:39:08 -0700, nm5k@wt.net wrote:

> It takes at least
>two decoupling sections to fully decouple an elevated vertical.

That statement is generally correct, however, if you were to use a bead balun things change a bit. The reason being that on 2-meters the balun is about 10" long (about 1/8-wavelength). When model correctly, you can observe that such a balun is pretty good at choking of common mode current without resorting to adding a second one.

It works even better on 200 MHz and 440MHz.

73,
Danny, K6MHE

1002. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 14:42:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ecc8c$42ad9b4f$97d55d24$21512@ALLTEL.NET>
Source record: 75168

Same thing that will happen when you point your flashlight forward at V=C,
the light falls on the floor :>)

"John Smith" <assemblywizard@gmail.com> wrote in message
news:1p9re.84$Iv3.5397608@news.sisna.com...
> I pictured this, I am in a spacecraft doing the speed of light, I key
> the xmitter and begin a long winded rant, the antenna is monopole.
>
> Now the signal leaving the rear of the antenna appears to be leaving it
> at 2X the speed of light (allowing for the VF of space-ether), however,
> the signal off the very front, at least the width of the antenna
> conductor itself, cannot leave (since I am traveling at the speed of
> light the signal appears to just stay on the surface of the
> conductor)--what will happen?
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality, right
> before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

1003. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 14:44:57 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <47db8$42ad9bec$97d55d24$21999@ALLTEL.NET>
Source record: 75169

In John's case, 30 MPH seems to do the trick...

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42ad7928$1_1@spool9-west.superfeed.net...
> Since you are traveling at the speed of light, everything,
> including your brain, stops working.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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News==----
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1004. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:11:04 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <emhre.13$3l.448587@news.sisna.com>
Source record: 75173

Actually, standing on the earth we are already moving at over 1,000 mph.
If you point a flashlight in the direction of rotation--it has the
potential of +1,000 mph than when you turn around and point it west.

Also, the universe is expanding, and that is pushing us on at a good
clip. Funny you don't see this being taken into account anywhere except
on space launches... but I have noticed what looks like a speedier
launch in one direction of my monopole, as compared to the other...

... most notably, when my ant is at an angle 90 degrees to the combined
directions of both the rotation of the earth and the expanding universe
direction... <grin>

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:1p9re.84$Iv3.5397608@news.sisna.com...
>I pictured this, I am in a spacecraft doing the speed of light, I key
>the xmitter and begin a long winded rant, the antenna is monopole.
>
> Now the signal leaving the rear of the antenna appears to be leaving
> it at 2X the speed of light (allowing for the VF of space-ether),
> however, the signal off the very front, at least the width of the
> antenna conductor itself, cannot leave (since I am traveling at the
> speed of light the signal appears to just stay on the surface of the
> conductor)--what will happen?
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality,
> right before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

1005. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:20:08 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118676008.696020.242170@z14g2000cwz.googlegroups.com>
Source record: 75170

>With just a cursory look I see that you sell "beems" instead of
>"beams"

Look a little more and you will find more typo's I am sure.

>and a claim that corner reflectors work better on packet than
>do Yagis is pure snake oil.

I think I said long Yagi's, something to do with phase distortion. I
am just going by what customers have told me that have used both.

>Simply modeling your super J-pole and adding a third element to
>represent the transmission line would show that the line radiates like
>crazy and affects the feedpoint Z.

I never said anything about a "super J-Pole" .
Other than maybe it is super simple.

If you simply modeled the OSJ and it showed the feed line radiates like
crazy, Maybe you didn't do it right. Maybe you need to step out into
the real world.

By the way, it has a 3rd element, makes it a dual J-Pole not just a
dual band.

73 Al Lowe N0IMW

1006. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:27:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8k8l9$8lj$2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75171

There have been interesting replies to my original query.

But for some reason I cannot explain, I feel much more comfortable
when I receive a message with a signature like "Buck, N4PGW".

At least it conveys the additional information you are located
somewhere within the few million square miles of the United States of
America.

I get as much pleasure as when messages are received from New Zealand,
down-under, and what used to be the USSR and from China.

Reg, G4FGQ
The Filthy Black Country
West of Birmingham
England
Europe.

Did you know there are far more miles of canals in B'ham and the Black
Country than there are in Venice? There are also hundreds of locks.
Whereas Venice doesn't have any so far as I'm aware.

==========

"Buck" <iam@this.site> wrote in message
news:go5qa1pknjaaocj37a88b5kh7gbsetupv1@4ax.com...
> On Sun, 12 Jun 2005 07:41:09 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >Why do so few correspondents on newsgroups give their real names
and
> >call signs?
> >
> >Why the hidden secrets?
> >
> >People should be proud of their call signs.
> >
> >Or do radio amateurs suffer from inferiority complexes.
> >
> >Back to SWR.
> >----
> >Reg, G4FGQ
> >
>
>
> I have had this nick-name longer than my real one, so I don't

suppose
> I am hiding my real one, I just prefer this one. On the other hand,
> if you meet me on the ham bands, you may recognize me as I use the
> same call sign and name there.
>
> PS.I can only answer for myself and for those who have given me the
> authority or ability.
>
> 72
>
> --
> 73 for now
> Buck
> N4PGW

1007. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:27:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8k8l9$8lj$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75172

They who discuss "power radiated from the feedline", yet are unable to measure (in watts) or calculate (in watts) the MAGNITUDE of the effect, belong to a set of waffling old wives.

How is it possible to decide whether or not a choke or balun is needed, and where to locate it, unless the magnitude of what one MIGHT wish to prevent is known.

Do we always, without valid reason, just copy the practical construction details from ARRL handbooks, on the grounds that if it once worked OK for somebody else it might work for me.

But of course, you'll never get to know, having copied a very simple system which contains a choke, unless you remove the choke and observe what happens to system performance. Or alternatively, add a choke if the ARRL handbook implies that you don't need one, and then make more observations.

My guess is that in many cases hardly anything will happen or be noticed. Simply because the MAGNITUDE of the effects due to line radiation is too small to be of consequence or detected even.

If you can't measure or calculate the MAGNITUDE of the effects, stop worrying about it.

The frequency at which "radiation from the line" is mentioned in this newsgroup is out of all proportion to its importance. There's a tendency to drag it into the discussion because it is the last of the few remaining technical topics available to argue about. You have at least heard about the subject in the magazines.

The very last, of course, will be SWR. Because there is a meter which supposedly measures it but doesn't. And it is difficult to argue against meter users, such as Bird, suffering from delusions of accuracy, who are invariably convinced they are right.

Reg, G4FGQ

1008. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:29:33 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <zDhre.14$mi.445504@news.sisna.com>
Source record: 75174

Al:

In college courses I have pointed out the typos in handouts/papers my professors have provided me.

Strange, but from the reactions I received, you would almost think the professors would have rather not had it brought to their attention (I am quite sure I am mistaken on this point)--I did quickly discover it had a direct effect on my course grades, at this point I stopped being so "helpful."

I see others went ahead and developed this "science" of "being helpful" into an art... <grin>

Warmest regards,
John

"Al" <Arrow146@aol.com> wrote in message
news:1118676008.696020.242170@z14g2000cwz.googlegroups.com...
> >With just a cursory look I see that you sell "beems" instead of
>>"beams"
>
> Look a little more and you will find more typo's I am sure.
>
>>and a claim that corner reflectors work better on packet than
>>do Yagis is pure snake oil.
>
> I think I said long Yagi's, something to do with phase distortion. I
> am just going by what customers have told me that have used both.
>
>>Simply modeling your super J-pole and adding a third element to
>>represent the transmission line would show that the line radiates like
>>crazy and affects the feedpoint Z.
>
> I never said anything about a "super J-Pole" .
> Other than maybe it is super simple.
>
> If you simply modeled the OSJ and it showed the feed line radiates
> like
> crazy, Maybe you didn't do it right. Maybe you need to step out into
> the real world.
>
> By the way, it has a 3rd element, makes it a dual J-Pole not just a
> dual band.
>
> 73 Al Lowe N0IMW

>

1009. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:43:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42adaa8a$1_1@spool9-west.superfeed.net>
Source record: 75075

Al wrote:
> If you simply modeled the OSJ and it showed the feed line radiates like
> crazy, Maybe you didn't do it right. Maybe you need to step out into
> the real world.

Al, you could get a relative measure of common-mode
current by slipping a #68 toroidal pickup coil over
the coax.
--
73, Cecil http://www.qsl.net/w5dxp

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1010. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:48:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42adabce$1_1@spool9-west.superfeed.net>
Source record: 75076

John Smith wrote:

> Actually, standing on the earth we are already moving at over 1,000 mph.
> If you point a flashlight in the direction of rotation--it has the
> potential of +1,000 mph than when you turn around and point it west.

Nope, that's not true. You will measure no difference. An observer
fixed compared to your position would measure a Doppler frequency
shift but no difference in velocity.

> Also, the universe is expanding, and that is pushing us on at a good
> clip. Funny you don't see this being taken into account anywhere except
> on space launches...

But it is taken into account. Most astronomers don't believe the
red shift is pure Doppler effect.
--
73, Cecil http://www.qsl.net/w5dxp

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1011. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:51:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42adac5b$1_1@spool9-west.superfeed.net>
Source record: 75077

Reg Edwards wrote:
> If you can't measure or calculate the MAGNITUDE of the effects, stop
> worrying about it.

Does RF burns on my lip count as a measurement? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1012. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 15:57:12 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <u1ire.19$I11.482436@news.sisna.com>
Source record: 75078

... I forgot to mention, the flashlight was not aimed at an observer
here on earth--I was using to view the space shuttle and mars... I think
they may have noticed something--but "they" ain't talkin'... <grin>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42adabce$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>
>> Actually, standing on the earth we are already moving at over 1,000
>> mph. If you point a flashlight in the direction of rotation--it has
>> the potential of +1,000 mph than when you turn around and point it
>> west.
>
> Nope, that's not true. You will measure no difference. An observer
> fixed compared to your position would measure a Doppler frequency
> shift but no difference in velocity.
>
>> Also, the universe is expanding, and that is pushing us on at a good
>> clip. Funny you don't see this being taken into account anywhere
>> except on space launches...
>
> But it is taken into account. Most astronomers don't believe the
> red shift is pure Doppler effect.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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1013. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 16:01:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <F5ire.20$cS6.420988@news.sisna.com>
Source record: 75079

Reg:

Well, I am a bit embarrassed there... don't really like mentioning where I live, but will part with that information... I live in "The Land of the Loonies"... <frown>

... otherwise known as "California" USA... near the state capitol here--Sacramento...

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d8k8l9$8lj$2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> There have been interesting replies to my original query.
>
> But for some reason I cannot explain, I feel much more comfortable
> when I receive a message with a signature like "Buck, N4PGW".
>
> At least it conveys the additional information you are located
> somewhere within the few million square miles of the United States of
> America.
>
> I get as much pleasure as when messages are received from New Zealand,
> down-under, and what used to be the USSR and from China.
> ----
> Reg, G4FGQ
> The Filthy Black Country
> West of Birmingham
> England
> Europe.
>
> Did you know there are far more miles of canals in B'ham and the Black
> Country than there are in Venice? There are also hundreds of locks.
> Whereas Venice doesn't have any so far as I'm aware.
>
> ==========
>
> "Buck" <iam@this.site> wrote in message
> news:go5qa1pknjaaocj37a88b5kh7gbsetupv1@4ax.com...
>> On Sun, 12 Jun 2005 07:41:09 +0000 (UTC), "Reg Edwards"
>> <g4fgq.regp@ZZZbtinternet.com> wrote:
>>
>> >Why do so few correspondents on newsgroups give their real names

> and
>> >call signs?
>> >
>> >Why the hidden secrets?
>> >
>> >People should be proud of their call signs.
>> >
>> >Or do radio amateurs suffer from inferiority complexes.
>> >
>> >Back to SWR.
>> >----
>> >Reg, G4FGQ
>> >
>>
>>
>> I have had this nick-name longer than my real one, so I don't
> suppose
>> I am hiding my real one, I just prefer this one. On the other hand,
>> if you meet me on the ham bands, you may recognize me as I use the
>> same call sign and name there.
>>
>> PS.I can only answer for myself and for those who have given me the
>> authority or ability.
>>
>> 72
>>
>> --
>> 73 for now
>> Buck
>> N4PGW
>
>

1014. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 16:02:26 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118678546.128278.177880@g44g2000cwa.googlegroups.com>
Source record: 75080

<Sniped>
>I don't believe you can totally eliminate all current. There will always be a small
>amount.

Agreed, but it is small enough I don't think most people could see a
difference in performance if it had a choke or not.
All I am saying, to say the antenna won't work with out a choke is just
wrong.

>I doubt I would change the antenna....Would make it cost more...
>I'd consider a super deluxe version for a higher price, if they wanted
>full 2 section decoupling...:/ And if I went that far, I'd use a dual
>5/8 design to get more gain. You'd be reinventing the isopole...:/
>MK

I have an "Isopole" here in the shop, it works good, maybe one of the
best
5/8 wave antennas I have ever tested. I think it could be built a
little better.
I have seen a lot of them that were broke.
But that is comparing apples to oranges
The OSJ is a simple 1/2 wave antenna that has 0 dBd gain.
No magic.
Again, I just think it is wrong to tell someone the antenna won't work
with out a choke.

73 Al Lowe N0IMW

1015. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 16:30:46 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <lfoj6Kh2SbrCFAu2@ifwtech.co.uk>
Source record: 75081

Reg Edwards wrote:
>
>They who discuss "power radiated from the feedline", yet are unable to
>measure (in watts) or calculate (in watts) the MAGNITUDE of the
>effect, belong to a set of waffling old wives.
>

Those who take no precautions to prevent their feedline from becoming part of the antenna, belong to a set of people who don't even know what their antenna IS.

There's a part you call "the antenna", and another part you call "the feedline". Wishful thinking will not stop RF current from flowing directly from one to the other.

>How is it possible to decide whether or not a choke or balun is
>needed, and where to locate it, unless the magnitude of what one MIGHT
>wish to prevent is known.
>
Try a clamp-on RF current meter, a little modeling... or even a little common sense.

There's a place called "the feedpoint" where the antenna and the feedline are connected directly together. Might that be a good location for a choke to keep them separate? Yes, it almost certainly would.

Chokes may also be needed at other locations, but it's hard to justify anywhere else as your *first* choice. (The exception is the Carolina Windom and similar antennas where part of the feedline is intended to radiate. But even there, they put a good choke at the point where they want RF currents on the feedline to stop.)

Queen Elizabeth 1 of England had the good sense to take a bath every six months "whether I need it or not". If you don't know whether your feedline smells of RF, then follow her excellent advice and use a choke.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1016. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 16:42:28 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <UHire.62644$tt5.40100@edtnps90>
Source record: 75084

"Anchor" <anchorelectronics@sympatico.ca> wrote in message
news:pan.2005.06.12.23.11.54.893920@sympatico.ca...
> Any suggestions on how to build a 2.4 GHz CW transmitter with a microwave
> oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?
>
> There are tons of "pringle" or coffee can antennas or similar on the web.
> For example: http://flakey.info/antenna/waveguide or
> http://www.turnpoint.net/wireless/antennas/mycoffeecan.html
>
> I suppose one need only insert the magnetron antenna into the coffee can
> where one would normally mount the N-connector feed point.
>
> A labeled diagram of a microwave magnetron can be found at:
> http://www.gallawa.com/microtech/mag_test.html
>
> I suppose the metal coffee can has superior micro shielding properties
> relative to the aluminumized cardboard pringle can.
>
> Would I be better off with plumbing copper drain pipe from the stray RF
> exposure perspective?
>
> Since microwave magnetron use a half wave power supply, can I use two
> magnetrons in the same coffee can powered from a single AC HV transformer
> with a pair of HV rectifiers to feed alternate cycles to the magnetrons?
>
> Greg, VE0ACR

I once looked at a microwave oven on a spectrum analyzer (Loosely coupled
near the door seal). The signal was spread over 100s of MHz. It also
appeared to be pulsed. The spectrum, however, did not look like the
expected
Sa(x) distribution. Magnetrons are not noted for their stability, and are
probably not suitable for CW. I have played with tunable 500 mW klystrons,
and they can drift 10s of MHz (at 12 GHz), in a very short period of time.

73,

Frank

1017. Microwave oven magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 16:47:40 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <MMire.62645$tt5.58331@edtnps90>
Source record: 75083

I once looked at a microwave oven on a spectrum analyzer (Loosely coupled near the door seal). The signal was spread over 100s of MHz. It also appeared to be pulsed. The spectrum, however, did not look like the expected Sa(x) distribution. Magnetrons are not noted for their stability, and are
probably not suitable for CW. I have played with tunable 500 mW klystrons, and they can drift 10s of MHz (at 12 GHz), in a very short period of time.

73,

Frank

PS I often post responses, and never see them. That is why I started a new thread. Anybody else get the same problem?

1018. Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 16:48:54 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <WNire.62646$tt5.15975@edtnps90>
Source record: 75082

Most of my posts never make it to the NG. What am I doing wrong?

Frank

1019. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:33:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Mrjre.28$i04.1155133@news.sisna.com>
Source record: 75094

Dave said:
"... all the errors in your logic when you start with impossible
conditions."

I certainly hope you don't mean "going the speed of light" as an "error"
of mine, we have already move "stuff" faster than that...

This article:
http://news.bbc.co.uk/1/hi/sci/tech/2049048.stm

claims the "teleportation" of a laser beam... now that IS occurring at
greater than the speed of light--else the beam would be gone before you
could get it moved!!!

... some of us need to remain current (I include myself in that
statement--I slip behind quickly)...

The far reaching repercussions of all this will not be realized for
decades...

John
"Dave" <noone@nowhere.com> wrote in message
news:lJWdnbVhMIlA8TDfRVn-sw@crocker.com...
> you might want to try this on sci.physics.relativity, they like
> pointing out all the errors in your logic when you start with
> impossible conditions.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:YAcre.89$3z5.5842010@news.sisna.com...
>> ... by the way, since I am traveling at the speed of light--a
>> "reflected" current on the coax is impossible... perfect balun
>> really... <grin>
>>
>> John
>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:Hqcre.88$zR5.5895276@news.sisna.com...
>>> Ok, no takers so far, and since I am having trouble sleeping...
>>>
>>> I remount the xmitter in the space craft...
>>> Now the rear of the xmitter is facing the rear of the
>>> spacecraft--and the antenna just happens to be back there at the
>>> rear of the spacecraft too... we continue at the speed of light...
>>>
>>> But now, the signal is shot through the coax at 2x times the speed
>>> of light (due to its speed through the coax, combined with the fact

>>> that the coax is traveling at the speed of light and the signal
>>> travels in an opposite direction through that coax)... the signal
>>> now strikes that antenna at 2x the speed of light and is able to
>>> leave the front of the antenna at 1X the speed of light! ...or,
>>> does it?
>>>
>>> But, suddenly I notice a problem at the front of the spacecraft and,
>>> it is dark up there... no problem, I grab my trusty flashlight,
>>> point it at the front of the spacecraft and turn it on... but, big
>>> problem, the front of the spacecraft remains dark... I move the
>>> flashlight and notice a bunch of light photons hanging in the air
>>> right where I had been holding the flashlight... unable to overtake
>>> the speed of light I am traveling at!!! Indeed, it is getting
>>> pretty darn bight inside this spacecraft now, as no forward light is
>>> able to travel forward and be reflected or absorbed...
>>>
>>> My co-pilot suddenly says, "That is impossible! The flashlight is
>>> traveling at the speed of light, any light it gives off has to be
>>> traveling at 2X the speed of light and can go forward--those photons
>>> cannot possibly be there hanging in midair!"
>>>
>>> To which, I respond, "Nothing can go faster than the speed of light,
>>> fool!" <grin>
>>>
>>> (I just threw in the "fool" for effect... the co-pilot knew I was
>>> kidding)
>>>
>>> ... maybe I can sleep now...
>>>
>>> Warmest regards,
>>> John
>>>
>>> "John Smith" <assemblywizard@gmail.com> wrote in message
>>> news:1p9re.84$Iv3.5397608@news.sisna.com...
>>>>I pictured this, I am in a spacecraft doing the speed of light, I
>>>>key the xmitter and begin a long winded rant, the antenna is
>>>>monopole.
>>>>
>>>> Now the signal leaving the rear of the antenna appears to be
>>>> leaving it at 2X the speed of light (allowing for the VF of
>>>> space-ether), however, the signal off the very front, at least the
>>>> width of the antenna conductor itself, cannot leave (since I am
>>>> traveling at the speed of light the signal appears to just stay on
>>>> the surface of the conductor)--what will happen?
>>>>
>>>> Warmest regards,
>>>> John
>>>> --
>>>> Watching the cutting edge of yesterday replay--in virtual reality,
>>>> right before my eyes--in real time!

>>>> Thirty year old technology--wasn't it amazing?
>>>>
>>>>
>>>
>>>
>>
>>
>
>

1020. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:35:40 UTC
From: "mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com>
Message-ID: <1118684140.848522.252160@g43g2000cwa.googlegroups.com>
Source record: 75085

Gentlemen,

Thank you for your responses. I appreciate the assistance.

It appears that I need to provide a bit more information to give you more insight into the circumstances I am faced with. I had hoped to keep both the question and responses as uncomplicated as possible. However, given the direction that a couple of responses have taken I see the need for expanded information.

It is true that I have substantial management experience, but it lies in a very different industry. In fact, for 11-years I owned a consumer electronics engineering/manufacturing company with sales in many foreign countries. During that time my company never borrowed any money and never carried any debt. Nevertheless, the time came to close the company and I did so. While it was not the easiest decision to make, it was the right one and the right time to do it.

I took a job last August driving school bus for a local barn for a large foreign-owned company, and shortly thereafter an opening for an operations clerk (glorified secretary), became available and I took it. (Yes, it's been humbling, but I have little room for ego.) It turns out that not only am I new in my position (as well as to the transportation industry), but the dispatcher and operations manager for the particular barn I work in are new in their positions as well. That is not to say that they are new to the company or to the industry. The operations manager has 9-years with the company.

I believe that part of my job is to help my superiors be successful and to look good to theirs. While I am hoping that other doors of opportunity will open for me, I have a responsibility to be as good an "operations clerk" as possible.

In this particular circumstance, I have come in long after the horse has escaped, as have my two immediate superiors. The issue with the communications amongst the 40 busses at this location is one that the three of us are attempting to clean up.

In terms of the rate charged, our mechanic gets about $15 per hour, while I get $9. Local auto dealers charge $45-$65 an hour. Therefore, using this as a reference $80 just seemed a bit steep. That said, if that is customary for UHF work then I will accept that as I said. Given the AP that I've seen, it seems clear that there is no service contract in place.

While the repairs made to the repeater did get channel 1 working again, it has a high static level with most but not all busses. A couple of

busses sound relatively clear, while most others are nearly unintelligeable. Channel 2 (direct) generally sounds much better across the board. However, even then many of the busses have problems. This is what leads me to suspect various antenna tuning issues. Therefore, my question about the feasibility of doing that in-house. I would much prefer to pay $15 an hour than $80 for the same work, but only of it makes sense to do so.

I hope that this provides more of the information that you gentlemen need to help me determine the most prudent course of action. I would like to be able to make a reasonably intelligent and informed recommendation to my superior. Thank you again for your assistance.

Mike

1021. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:43:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <fBjre.29$jL4.1491017@news.sisna.com>
Source record: 75092

```
... the next breakthrough I expect from progressive antenna
manufacturers is a "teleportation antenna", where the signal is received
on the other side of the universe at the same instant it is transmitter
here... sure hope someone is listening out there--and has the antennas'
counterpart...

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Mrjre.28$i04.1155133@news.sisna.com...
> Dave said:
> "... all the errors in your logic when you start with impossible
> conditions."
>
> I certainly hope you don't mean "going the speed of light" as an
> "error" of mine, we have already move "stuff" faster than that...
>
> This article:
> http://news.bbc.co.uk/1/hi/sci/tech/2049048.stm
>
> claims the "teleportation" of a laser beam... now that IS occurring at
> greater than the speed of light--else the beam would be gone before
> you could get it moved!!!
>
> ... some of us need to remain current (I include myself in that
> statement--I slip behind quickly)...
>
> The far reaching repercussions of all this will not be realized for
> decades...
>
> John
> "Dave" <noone@nowhere.com> wrote in message
> news:lJWdnbVhMIlA8TDfRVn-sw@crocker.com...
>> you might want to try this on sci.physics.relativity, they like
>> pointing out all the errors in your logic when you start with
>> impossible conditions.
>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:YAcre.89$3z5.5842010@news.sisna.com...
>>> ... by the way, since I am traveling at the speed of light--a
>>> "reflected" current on the coax is impossible... perfect balun
>>> really... <grin>
>>>
>>> John
>>>
```

>>> "John Smith" <assemblywizard@gmail.com> wrote in message
>>> news:Hqcre.88$zR5.5895276@news.sisna.com...
>>>> Ok, no takers so far, and since I am having trouble sleeping...
>>>>
>>>> I remount the xmitter in the space craft...
>>>> Now the rear of the xmitter is facing the rear of the
>>>> spacecraft--and the antenna just happens to be back there at the
>>>> rear of the spacecraft too... we continue at the speed of light...
>>>>
>>>> But now, the signal is shot through the coax at 2x times the speed
>>>> of light (due to its speed through the coax, combined with the fact
>>>> that the coax is traveling at the speed of light and the signal
>>>> travels in an opposite direction through that coax)... the signal
>>>> now strikes that antenna at 2x the speed of light and is able to
>>>> leave the front of the antenna at 1X the speed of light! ...or,
>>>> does it?
>>>>
>>>> But, suddenly I notice a problem at the front of the spacecraft
>>>> and, it is dark up there... no problem, I grab my trusty
>>>> flashlight, point it at the front of the spacecraft and turn it
>>>> on... but, big problem, the front of the spacecraft remains dark...
>>>> I move the flashlight and notice a bunch of light photons hanging
>>>> in the air right where I had been holding the flashlight... unable
>>>> to overtake the speed of light I am traveling at!!! Indeed, it is
>>>> getting pretty darn bight inside this spacecraft now, as no forward
>>>> light is able to travel forward and be reflected or absorbed...
>>>>
>>>> My co-pilot suddenly says, "That is impossible! The flashlight is
>>>> traveling at the speed of light, any light it gives off has to be
>>>> traveling at 2X the speed of light and can go forward--those
>>>> photons cannot possibly be there hanging in midair!"
>>>>
>>>> To which, I respond, "Nothing can go faster than the speed of
>>>> light, fool!" <grin>
>>>>
>>>> (I just threw in the "fool" for effect... the co-pilot knew I was
>>>> kidding)
>>>>
>>>> ... maybe I can sleep now...
>>>>
>>>> Warmest regards,
>>>> John
>>>>
>>>> "John Smith" <assemblywizard@gmail.com> wrote in message
>>>> news:1p9re.84$Iv3.5397608@news.sisna.com...
>>>>>I pictured this, I am in a spacecraft doing the speed of light, I
>>>>>key the xmitter and begin a long winded rant, the antenna is
>>>>>monopole.
>>>>>
>>>>> Now the signal leaving the rear of the antenna appears to be

>>>>> leaving it at 2X the speed of light (allowing for the VF of
>>>>> space-ether), however, the signal off the very front, at least the
>>>>> width of the antenna conductor itself, cannot leave (since I am
>>>>> traveling at the speed of light the signal appears to just stay on
>>>>> the surface of the conductor)--what will happen?
>>>>>
>>>>> Warmest regards,
>>>>> John
>>>>> --
>>>>> Watching the cutting edge of yesterday replay--in virtual reality,
>>>>> right before my eyes--in real time!
>>>>> Thirty year old technology--wasn't it amazing?
>>>>>
>>>>>
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>

1022. Re: Microwave oven magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:46:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <4Ejre.30$sz4.1475690@news.sisna.com>
Source record: 75093

... well, sounds like a great jamming device for when the sw stations go GHz...

John

"Frank" <ve6cb@nospam.telus.net> wrote in message news:MMire.62645$tt5.58331@edtnps90...
>I once looked at a microwave oven on a spectrum analyzer (Loosely
>coupled
> near the door seal). The signal was spread over 100s of MHz. It also
> appeared to be pulsed. The spectrum, however, did not look like the
> expected Sa(x) distribution. Magnetrons are not noted for their
> stability, and are
> probably not suitable for CW. I have played with tunable 500 mW
> klystrons,
> and they can drift 10s of MHz (at 12 GHz), in a very short period of
> time.
>
> 73,
>
> Frank
>
> PS I often post responses, and never see them. That is why I started
> a new thread. Anybody else get the same problem?
>

1023. Re: Microwave oven magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:54:33 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11ari2gb46mj970@corp.supernews.com>
Source record: 75086

Frank wrote:

> I once looked at a microwave oven on a spectrum analyzer (Loosely coupled
> near the door seal). The signal was spread over 100s of MHz. It also
> appeared to be pulsed. The spectrum, however, did not look like the
> expected Sa(x) distribution. Magnetrons are not noted for their stability,
> and are
> probably not suitable for CW. I have played with tunable 500 mW klystrons,
> and they can drift 10s of MHz (at 12 GHz), in a very short period of time.
>
> 73,
>
> Frank
>
> PS I often post responses, and never see them. That is why I started a new
> thread. Anybody else get the same problem?
>
>
How long do you wait -- your response is there just fine.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1024. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:56:01 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11ari58342dlta4@corp.supernews.com>
Source record: 75089

Frank wrote:

snip
>
>
> I once looked at a microwave oven on a spectrum analyzer (Loosely coupled
> near the door seal). The signal was spread over 100s of MHz. It also
> appeared to be pulsed. The spectrum, however, did not look like the
> expected
> Sa(x) distribution. Magnetrons are not noted for their stability, and are
> probably not suitable for CW. I have played with tunable 500 mW klystrons,
> and they can drift 10s of MHz (at 12 GHz), in a very short period of time.
>
> 73,
>
> Frank
>
>
In the article I quoted above they tune the magnetron frequency by
varying the voltage to the magnetron. I wouldn't be surprised if the
oven's DC to the magnetron was filtered lightly or not at all.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1025. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 17:57:47 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11ari8hp9qv64de@corp.supernews.com>
Source record: 75088

Bill Turner wrote:

> On Mon, 13 Jun 2005 10:48:46 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Most astronomers don't believe the
>>red shift is pure Doppler effect.
>
Correct. Much of it appears to be from the expansion of the universe.
The effects can be shown to be different.
>
> ____
>
> I'm not an astronomer but I've wondered about that too. Perhaps the red
> shift from distant objects is just simply caused by the photons
> gradually losing energy after a few billion years. A lower energy photon
> means a longer wavelength, i.e. a red shift.

That was actually posited in the 1920's, and tested -- the answer was
"nope".
>
> The lost energy could explain the "background radiation" of the cosmos.
>
> I think God likes playing with our minds. I would if I were him. :-)
>

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1026. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 18:07:13 UTC
From: dplatt@radagast.org
Message-ID: <11ariqht1i7t434@corp.supernews.com>
Source record: 75090

In article <42acc50b$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

>> By open stub, you mean there is no loop at the bottom of the "J"?

>He means the bottom of the stub is the feedpoint, like this:
>
>+--
>|
>FP
>|
>+-----------------
>
>And that looks like an unbalanced feedpoint so it should result
>in common-mode currents, sorta like an off center-fed dipole.

If I recall correctly, Cebik has some discussion and modelling of such open-sleeve J-pole designs in his "Tales and Technicals" section. Start at http://www.cebik.com/vhf/jp1.html and go down about half-way.

The version of the "non-standard J-pole" which Cebik models is fed at bottom center, in a dimensionally-symmetrical way. His current plot seems to show equal currents at this feedpoint, and this would seem to make the use of a choke or balun on the feedline somewhat less significant than with a standard J-pole.

Cebik's model would need to be modified somewhat apply to the Arrow open-sleeve J-pole, as the Arrow is fed at the very base of the one element rather than halfway between the two.

Anybody care to model up the Arrow, with all three elements included, with and without a separate wire representing the outside of the coax?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1027. Re: Microwave oven magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 18:10:17 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <d_jre.62660$tt5.36375@edtnps90>
Source record: 75091

>> 73,
>>
>> Frank
>>
>> PS I often post responses, and never see them. That is why I started a
>> new thread. Anybody else get the same problem?
> How long do you wait -- your response is there just fine.

Obviously not long enough. Usually when I post the message it is there instantly. In some recent posts they have never appeared, even days after. This last one took a couple of hours.

Thanks,

Frank

1028. Comet CHA250b - Any Comments Yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 18:21:48 UTC
From: Dave <dave@somehere.net>
Message-ID: <uajra1ljchraov8fuqukvimdl46jrsvvil@4ax.com>
Source record: 75087

I was just wondering if anyone had any comments on Comets new vertical, the CHA250B that was reviewed in this months CQ.

A reprint of the review can be found at:

http://www.benelec.com.au/pdf/Comet-CHA250B-Review.pdf

Seems a little pricey at over $430 (AES) but then again, a good screwdriver costs almost that much.

I wonder what kind of "Matching Network" it uses that it can be so broadbanded?

Dave - WK8F

1029. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 18:40:43 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <mvira1t9j9uojie4gdtd1g543n5rkilkse@4ax.com>
Source record: 75095

On 13 Jun 2005 08:20:08 -0700, "Al" <Arrow146@aol.com> wrote:

>>With just a cursory look I see that you sell "beems" instead of
>>"beams"
>
>Look a little more and you will find more typo's I am sure.

Let me tell you a little war story and see what you think.

About 20 years ago my boss, a newly minted PhD, got a job teaching a Senior/Graduate level course on Microwave Measurements Theory and Practice at the U of AZ. At the time the U's equipment was abysmal so he got permission to bring the kids into my lab at Hughes for the lab portion of the class.

I got the job of devising the experiments, setting up the gear and grading the lab notebooks. The kids could absolutely not see straight when I graded their grammar. Their cry was, "This is an engineering course, not an English course."

My reply was that they were prepping themselves for a job in industry (actually a few of them already worked at Hughes) and I wrote memos and reports every day, that if poorly written would reflect badly on me.

Your web site is your place of business...fill it up with typos, bad grammar and bogus claims and your business can suffer. On second thought, considering your client base, maybe they'll never notice.

>
>>and a claim that corner reflectors work better on packet than
>>do Yagis is pure snake oil.
>
>I think I said long Yagi's, something to do with phase distortion. I
>am just going by what customers have told me that have used both.

Aha. So all I have to do is buy one of your antennas and write and tell you how awful it works and you'll put that on your web site.

>
>>Simply modeling your super J-pole and adding a third element to
>>represent the transmission line would show that the line radiates like
>>crazy and affects the feedpoint Z.
>
>I never said anything about a "super J-Pole" .

Sorry, a facetious remark that escaped you.

>Other than maybe it is super simple.
>
>If you simply modeled the OSJ and it showed the feed line radiates like
>crazy, Maybe you didn't do it right. Maybe you need to step out into
>the real world.
>
>By the way, it has a 3rd element, makes it a dual J-Pole not just a
>dual band.

No, I modeled the OSJVHF as depicted here:

http://www.arrowantennas.com/inst/igif/ijmurs1.gif

You claim 150-162 MHz with < 1.5:1 SWR. I modeled it as follows.

I saw the SWR vary from a low of 1.4:1 at 150 MHz to a high of almost
7:1 at 162 MHz.

Here's the file:

```
****************************************************************************
EZNEC+ ver. 4.0

Created from MultiNEC 6/13/2005 11:25:41 AM

--------------- ANTENNA DESCRIPTION ---------------

Frequency = 150 MHz
Wire Loss: Aluminum (6061-T6) -- Resistivity = 4E-08 ohm-m, Rel. Perm.
= 1

--------------- WIRES ---------------

No. End 1 Coord. (in) End 2 Coord. (in)
Dia (in) Segs Insulation
Conn. X Y Z Conn. X Y Z
Diel C Thk(in)
1 W4E1 0, 0, 0 W2E1 0, 0, 18
0.375 13 1 0
2 W1E2 0, 0, 18 0, 0, 54
0.375 26 1 0
3 W4E2 0, 5, 0 0, 5, 18
0.375 13 1 0
4 W1E1 0, 0, 0 W3E1 0, 5, 0
0.375 4 1 0

Total Segments: 56

-------------- SOURCES --------------

No. Specified Pos. Actual Pos. Amplitude Phase
Type
Wire # % From E1 % From E1 Seg (V/A) (deg.)
1 1 0.00 3.85 1 1 0 SI

No loads specified
```

No transmission lines specified

Ground type is Free Space

****

Where did I go wrong?

1030. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 18:51:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <GvCdnSqyJaRfSDDfRVn-gA@crocker.com>
Source record: 75096

"John Smith" <assemblywizard@gmail.com> wrote in message
news:fBjre.29$jL4.1491017@news.sisna.com...
> ... the next breakthrough I expect from progressive antenna manufacturers
> is a "teleportation antenna", where the signal is received on the other
> side of the universe at the same instant it is transmitter here... sure
> hope someone is listening out there--and has the antennas' counterpart...
>

its already been patented.

1031. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 18:51:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nekra1lgro9nfg4s4hl0efj787map7o27c@4ax.com>
Source record: 75097

On 13 Jun 2005 10:35:40 -0700, "mccall.mike.nospam@gmail.com"
<mccall.mike@gmail.com> wrote:

>While the repairs made to the repeater did get channel 1 working again,
>it has a high static level with most but not all busses. A couple of
>busses sound relatively clear, while most others are nearly
>unintelligeable. Channel 2 (direct) generally sounds much better across
>the board. However, even then many of the busses have problems. This is
>what leads me to suspect various antenna tuning issues.

Hi Mike,

Your last sentence is what is called looking for your lost keys at
night, beneath the only streetlight. It's not that you lost them
there, it is simply your only working option. You may appreciate how
poor this strategy actually succeeds in the real world.

Static is not a normal indication of good operation. That much rings
true. However, tuning antennas is improvement by degree, not by leaps
and bounds - unless something very obviously wrong is quite visually
evident with the antenna. You may even have to accept the possibility
that this system never worked very well to begin with.

You say a couple of busses work well, and this in its own right tends
to remove the repeater from the list of problems - but your
description of problems is still slim. You say nothing of terrain,
service area (how many square miles, blocks, or whatever), or pattern
of coverage. Unintelligible is another fuzzy word to describe
communications. Is this because of static? distortion? other noise?
weak signal? Is this static: ignition noise? road noise? power line
noise?

FM communications rarely presents you with noise problems unless your
power level (from the repeater) is seriously low or your receiver is
seriously mistuned, or its antenna situation is seriously mangled
(have you looked?). Receivers don't get mistuned typically, and
antennas are quite robust. You already offer that point to point comm
on ch 2 is a mixed bag. Start by using what field medics call triage.
That is separate the well from the infirmed, and the dead from those
who need help.

In the end, you can spend far more at $15/hr accomplishing nearly no
good results than you would with an hour's time from a good tech.
Have you tried talking to him? I bet no more than 5 minutes of
conversation would reveal much.

73's
Richard Clark, KB7QHC

1032. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 19:22:44 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8kmek$4rv$1@news.service.uci.edu>
Source record: 75098

Cecil Moore wrote:

> John Smith wrote:
>
>> ... deep within the pits of-- rec.radio.amateur.antenna.hell-- John
>> Smith moves over on the bench, making room for Cecil...
>
>
> I guess some religions forbid barbecuing sacred cows.

Thankfully, nature forbids flying cows - and pigs. :-)

Squelch on.

ac6xg

1033. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 19:56:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8koeb$2vt$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75099

> Reg Edwards wrote:
> > If you can't measure or calculate the MAGNITUDE of the effects,
stop
> > worrying about it.
>
> Does RF burns on my lip count as a measurement? :-)

==========

Not unless your yelp indicated how may watts the microphone was
radiating at the time. ;o)

Reg

1034. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 19:57:49 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <kp6DXWt9UerCFA9$@ifwtech.co.uk>
Source record: 75104

Dave Platt wrote:
>
>>> By open stub, you mean there is no loop at the bottom of the "J"?
>
>>He means the bottom of the stub is the feedpoint, like this:
>>
>>+---
>>>
>>FP
>>>
>>+-----------------
>>
>>And that looks like an unbalanced feedpoint so it should result
>>in common-mode currents, sorta like an off center-fed dipole.
>
>If I recall correctly, Cebik has some discussion and modelling of such
>open-sleeve J-pole designs in his "Tales and Technicals" section. Start
>at http://www.cebik.com/vhf/jp1.html and go down about half-way.
>
>The version of the "non-standard J-pole" which Cebik models is fed at
>bottom center, in a dimensionally-symmetrical way. His current plot
>seems to show equal currents at this feedpoint, and this would seem to
>make the use of a choke or balun on the feedline somewhat less
>significant than with a standard J-pole.

An antenna model without a feedline will *force* equal and opposite
currents at the feedpoint - it is always fed through the perfect balun!

Add an un-choked feedline to the model (another thick wire, representing
the coax shield) at either side of the feedpoint, and see where the
current goes now. If you don't use a choke on a real-life antenna,
there's nothing to stop the current going wherever it likes.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1035. Re: Microwave oven magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:01:42 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <YZ8M7XumYerCFA5w@ifwtech.co.uk>
Source record: 75103

Frank wrote:
>>> 73,
>>>
>>> Frank
>>>
>>> PS I often post responses, and never see them. That is why I started a
>>> new thread. Anybody else get the same problem?
>> How long do you wait -- your response is there just fine.
>
>Obviously not long enough. Usually when I post the message it is there
>instantly. In some recent posts they have never appeared, even days after.
>This last one took a couple of hours.

Must be all those people out there with microwave ovens and Pringles
cans...

Competition for this year's Darwin Awards is going to be so hot, they're
trying to kill themselves two ways at once.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1036. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:03:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ade76f$1_2@spool9-west.superfeed.net>
Source record: 75100

Bill Turner wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Most astronomers don't believe the red shift is pure Doppler effect.
>
> I'm not an astronomer but I've wondered about that too. Perhaps the red
> shift from distant objects is just simply caused by the photons
> gradually losing energy after a few billion years. A lower energy photon
> means a longer wavelength, i.e. a red shift.

Consider that if the velocity of space is slowing down, the
volume of space would necessarily be expanding according to
the theory of relativity and photons would indeed lose energy.
The saddle model of the universe seems most likely to me because
of that slowing down process that will eventually lead to collapse
and another big bang.

> I think God likes playing with our minds. I would if I were him. :-)

Shame on you (and Him).
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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1037. Re: Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:05:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ade7ee$1_2@spool9-west.superfeed.net>
Source record: 75101

Frank wrote:
> Most of my posts never make it to the NG. What am I doing wrong?

Trying to post? :-) My news-server has a limited time slot for
me to respond to what I am reading. If I take longer than about
3 minutes to compose a reply, the news-server will not accept it.
--
73, Cecil http://www.qsl.net/w5dxp

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1038. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:12:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ade985$1_1@spool9-west.superfeed.net>
Source record: 75102
Body handling: Binary attachment payload not displayed: LAST.EZ

Dave Platt wrote:
> Anybody care to model up the Arrow, with all three elements included,
> with and without a separate wire representing the outside of the coax?

I did for a 2m version. Not only common-mode current on the
feedline but common-mode standing waves considerably modifying
the radiation pattern. It is (hopefully) attached.
--
73, Cecil http://www.qsl.net/w5dxp

[One or more binary attachments are retained only in the source text.]

1039. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:18:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42adeb03$1_2@spool9-west.superfeed.net>
Source record: 75105

Jim Kelley wrote:

> Cecil Moore wrote:
>> I guess some religions forbid barbecuing sacred cows.
>
> Thankfully, nature forbids flying cows - and pigs. :-)

Hey Jim, welcome back. I have a thread waiting for you. It's titled
"Thin Film Example" and asks you to explain where the energy and
the momentum in the thin-film internal reflected wave goes. Enjoy. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1040. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:26:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42adecde$1_1@spool9-west.superfeed.net>
Source record: 75106

Roy Lewallen wrote:
> It's really a shame -- on those rare instances where you can be coaxed
> into commenting without being compelled to steer the subject to your
> favorite obsession, you really do have a lot to offer. But the duty
> cycle is just too low -- it's not worth it to me. Bye.

Translation: If you agree with him you are the greatest. If you
disagree with him you are lower than the lowest layer of whale
$hit in the deepest part of the ocean. Reminds me of the upper
classmen at Texas A&M. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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1041. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 20:56:21 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118696181.678834.294030@o13g2000cwo.googlegroups.com>
Source record: 75107

>Aha. So all I have to do is buy one of your antennas and write and
>tell you how awful it works and you'll put that on your web site.

Sure, or post it yourself on e-ham.net for the whole world to see.
But Please base your test on the real antenna, not a computer model.
And when your done send back the antenna and I will refund your money.
Just like it says on the web page.

73 Al Lowe N0IMW Arrow Antenna

1042. Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:29:32 UTC
From: ik3umt <ik3umt@ir3ip.net>
Message-ID: <1118698172.833773.197950@g44g2000cwa.googlegroups.com>
Source record: 75108

Hi all,

What's the delay (in degrees) 1/10 lambda coax (for a given freq.)
introduces considering its velocity factor ??

1043. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:32:30 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <ZfusaHxutfrCFAJU@ifwtech.co.uk>
Source record: 75110

Cecil Moore wrote:
>Roy Lewallen wrote:
>> It's really a shame -- on those rare instances where you can be
>>coaxed into commenting without being compelled to steer the subject
>>to your favorite obsession, you really do have a lot to offer. But
>>the duty cycle is just too low -- it's not worth it to me. Bye.
>
>Translation: If you agree with him you are the greatest. If you
>disagree with him you are lower than the lowest layer of whale
>$hit in the deepest part of the ocean.

And there's the problem: whatever somebody actually says, you'll
translate it into what it suits you to have them say.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1044. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:42:44 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <p5nre.51$Ar4.3040439@news.sisna.com>
Source record: 75109

I would think a 1KW or greater magnetron run off a non-filtered and particularly dirty, but rectified dc supply (you could even feed a ramp or triangle dc power wave to the magnetron to cause frequency sweep) and into a sloppy waveguide exhibiting multiple resonant frequencies would knock out all cell phone and wireless communications on shf+ freqs for blocks if not miles... you would probably start jamming the cell towers for miles around and have every "pirate transmitter" hunter in America on your tail... in a large city/metro area you would cause havoc to break out--this WOULD BE ONE SERIOUS OFFENSE!!! If caught, you would learn to call prison your home!

And Bruce, in the cell next to you, would fall in love with you!

Not to mention the danger of exposure to the freqs in question--this would be best left alone...

John

"Anchor" <anchorelectronics@sympatico.ca> wrote in message
news:pan.2005.06.12.23.11.54.893920@sympatico.ca...
> Any suggestions on how to build a 2.4 GHz CW transmitter with a
> microwave
> oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?
>
> There are tons of "pringle" or coffee can antennas or similar on the
> web.
> For example: http://flakey.info/antenna/waveguide or
> http://www.turnpoint.net/wireless/antennas/mycoffeecan.html
>
> I suppose one need only insert the magnetron antenna into the coffee
> can
> where one would normally mount the N-connector feed point.
>
> A labeled diagram of a microwave magnetron can be found at:
> http://www.gallawa.com/microtech/mag_test.html
>
> I suppose the metal coffee can has superior micro shielding properties
> relative to the aluminumized cardboard pringle can.
>
> Would I be better off with plumbing copper drain pipe from the stray
> RF
> exposure perspective?
>
> Since microwave magnetron use a half wave power supply, can I use two
> magnetrons in the same coffee can powered from a single AC HV

> transformer
> with a pair of HV rectifiers to feed alternate cycles to the
> magnetrons?
>
> Greg, VE0ACR

1045. INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:45:19 UTC
From: Christopher O'Callaghan <d.ocallaghan@iolfree.ie>
Message-ID: <d8kuphpib1@reader01.news.esat.net>
Source record: 75111

MICHEAL JACKSON CLEARED OF ALL CHARGES

1046. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:49:40 UTC
From: dplatt@radagast.org
Message-ID: <11arvrkh0c2mf3b@corp.supernews.com>
Source record: 75113

In article <kp6DXWt9UerCFA9$@ifwtech.co.uk>,
Ian White GM3SEK <g3sek@ifwtech.co.uk> wrote:

>>The version of the "non-standard J-pole" which Cebik models is fed at
>>bottom center, in a dimensionally-symmetrical way. His current plot
>>seems to show equal currents at this feedpoint, and this would seem to
>>make the use of a choke or balun on the feedline somewhat less
>>significant than with a standard J-pole.
>
>An antenna model without a feedline will *force* equal and opposite
>currents at the feedpoint - it is always fed through the perfect balun!

Cebik's plot of currents in the "standard" J-pole shows unequal
currents all the way down to the bottom, and he notes this in his text
and asserts the need for a choke.

He doesn't say whether his models do or do not include a feedline.

>Add an un-choked feedline to the model (another thick wire, representing
>the coax shield) at either side of the feedpoint, and see where the
>current goes now. If you don't use a choke on a real-life antenna,
>there's nothing to stop the current going wherever it likes.

Agreed. The results are likely to be quite variable depending on the
feedline distance to the nearest ground. Seems to me that the worst
case would result from a small integral multiple of 1/2 wavelength, no?

My guess is that in most simple J-pole installations, the feedline
radiation and the resulting disturbance of the antenna's omni pattern
are probably not going to be worth worrying about too much. Nearby
buildings, trees, etc. are likely to result in larger differences
in the far-field pattern than any quirks in the antenna's own pattern.

As an alternative to using a choke on the feedline, what sort of
results might one get with a standard J-pole by using a half-wave
coaxial balun and tapping up a bit further on the elements?

An arrangement of this sort might solve two problems at once. One of
the problems I've noticed with making the usual plumber's-delight
copper J-pole for 440, is that the 50-ohm matching points are down
quite close to the bottom shorting-bar. If one makes attachment
clamps out of copper-pipe support straps (as is suggested in many of
the sets of plans I've seen), and if the J-pole is made from 1/2"
copper pipe with elbow and T fittings, it's difficult or impossible to
achieve a good match - the attachment clamps can't be slid far enough
down on the pipes to reach the match point, before they hit the elbow
fittings.

Using a coaxial 4:1 balun would allow the attachment points to be a
bit further up.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1047. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:50:18 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <uKadnQfUtJ0-YjDfRVn-qw@comcast.com>
Source record: 75112

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:nekra1lgro9nfg4s4hl0efj787map7o27c@4ax.com...
> On 13 Jun 2005 10:35:40 -0700, "mccall.mike.nospam@gmail.com"
> <mccall.mike@gmail.com> wrote:
>
>
Richard has covered many of your concerns.

>> In terms of the rate charged, our mechanic gets about $15 per hour, while
>> I get $9.

With the proper tools, replacement materials, correct knowledge and a
motivated/productive worker(s) (less than your $15/hour mechanic) - you can
improve the operation of this system.

Did you know that many stereo installation workers (e.g. Best Buy, Fry's
stereo shops) and even some LMR shops make about this same wage range?
It is usually an apprentice or entry level position for LMR shops !

So, how can you make it happen?

Richard gave an excellent FIRST step
> "Start by using what field medics call triage."

My Dad and Elmer's taught me 35 years ago that you need to quickly separate
the "wheat from the chaff".
Some of your "problem radios" in buses may actually be "bad radios" AND "bad
antennas". IF a radio has a shorted coax, the final RF transistors inside
the radio may have been damaged (like running an engine with no "oil
warning" light -- damage is or has occurred and you don't know it !)
There is no easy way that you will know this without diagnostic equipment.

> While the repairs made to the repeater did get channel 1 working again,
> it has a high static level with most but not all busses. A couple of
> busses sound relatively clear, while most others are nearly
> unintelligible.

While a number of problems can cause high static levels -- I would FIRST
suspect a broken shield in the antenna coax -- due to rough "installs and
reinstalls" from buses -- so that ignition noise from the bus engine is
being picked up by the radio.

Now, you still need to have a sit down conversation (for research and
business relationship purposes) with your local LMR. The purpose of this
meeting (about 30 minutes) is to introduce yourself and come away with the
following accomplishments. Something like this:

1. Establish a business relationship with the owner or manager of this business. Who is he/she? How long in business? Did they originally install and design this system for the company?
You just handed him a check for services -- and he/she should be happy to do this.

2. Outline -- at a high level -- your problem, which is:
+ Due to regular replacement of buses, your staff has to remove and install 40 radios very 12 to 24 months.

+ You have recently joined the company and discovered that the knowledge to do this work properly has been lost (due to employee turnover).

+ The company needs to regain sufficient knowledge to perform this work at "odd hours" or on "short notice".

+ You would like a proposal from this LMR company:
Cost to perform this changeout service per bus (at their facility OR at your facility - likely 2 prices here) - and any discounts for guaranteed volume of work (per bus) for a given time period.
(This service should include assurance of both the radio and antenna)

3. Ask the company if they would be willing to have 2 of your staff members "shadow" his install technicians. I know of many LMR that are restricted from doing this by their business insurers (similar restrictions exist for many insurance policies at automotive and truck garages - you may have such a restriction at your own bus garage
Your staff likely knows "buses" better than his LMR techs - and joint knowledge may be required for proper power routing to radio and antenna placement on the bus. No one has mentioned this - but the placement of a UHF antenna on a large bus is a KEY DECISION for proper operation.

AFTER, you get his written or verbal proposal, I would suggest that you propose to your management to try this out on the 2 bus radio installs - for you suspect that there are several issues at work in those instances.

Select the worst 2 bus radios --- preferably to be removed and installed in 2 brand new buses. This is what I refer to as a "BOOT STRAP" upgrade - taking the worst and making it the best.
NEW BUS - GOOD RADIO, POSITIVE Driver comments about these NEW BUSES - immediate quality improvement -- easier to continue program -- you get "buy in".

You will likely find the following reported to you by the LMR company -- as they have the "UHF bus radios" on the bench.

1. Bad coax that needs replacing
2. New whip required for antenna or "recutting"
3. You may require "noise suppression" on the power lead from the battery due to engine noise (e.g. spark plug, ignition system)
4. Damage or failure of the radio -- if you have no maintenance agreement -- this is break fix at a bench rate -- the alternatives are NO RADIO, FIX RADIO or REPLACE RADIO

Lastly, although you are upgrading and changing buses on a regular schedule (and tires) - where is the yearly budget allocation for the communication system? Did you know that if you handle the accounting properly -- you can include these radios in the overall capital depreciation of the buses?
IF you did not know this (kick your accountant in the ass for me) - that is pretty basic.

Greg
w9gb

1048. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:54:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae017a$1_1@spool9-west.superfeed.net>
Source record: 75115

Al wrote:
> And when your done send back the antenna and I will refund your money.
> Just like it says on the web page.

Hey Al, if I send the antenna back to you, will you refund
my money? What will the bank do with a $00.00 refund?
Your antenna certainly works as advertised, and like the
Zepp after which it was patterned. But I don't know of any
real-world antenna that is immune to common-mode problems.
--
73, Cecil http://www.qsl.net/w5dxp

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1049. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:55:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ghnre.54$dO4.3185725@news.sisna.com>
Source record: 75114

Cecil:

I should have mentioned the 11th Commandment and saved others...

11) Thou shalt not disagree with God.

... hey, did you bring that bottle of wine with ya, it is hot down here?

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42adecde$1_1@spool9-west.superfeed.net...
> Roy Lewallen wrote:
>> It's really a shame -- on those rare instances where you can be
>> coaxed into commenting without being compelled to steer the subject
>> to your favorite obsession, you really do have a lot to offer. But
>> the duty cycle is just too low -- it's not worth it to me. Bye.
>
> Translation: If you agree with him you are the greatest. If you
> disagree with him you are lower than the lowest layer of whale
> $hit in the deepest part of the ocean. Reminds me of the upper
> classmen at Texas A&M. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> News==----
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1050. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 21:57:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae023c$1_1@spool9-west.superfeed.net>
Source record: 75116

ik3umt wrote:
> What's the delay (in degrees) 1/10 lambda coax (for a given freq.)
> introduces considering its velocity factor ??

Well, let's see. 1/10 of 360 degrees = 36 degrees.
What am I missing?
--
73, Cecil http://www.qsl.net/w5dxp

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1051. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:16:50 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <mBnre.3869$jX6.586@newsread2.news.pas.earthlink.net>
Source record: 75117

Goody. Were his antennas charged with anything?

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:d8kuphpib1@reader01.news.esat.net...
> MICHEAL JACKSON CLEARED OF ALL CHARGES
>
>
>

1052. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:17:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae06f3$1_2@spool9-west.superfeed.net>
Source record: 75118

Ian White GM3SEK wrote:

> Cecil Moore wrote:
>
>> Roy Lewallen wrote:
>>
>>> It's really a shame -- on those rare instances where you can be
>>> coaxed into commenting without being compelled to steer the subject
>>> to your favorite obsession, you really do have a lot to offer. But
>>> the duty cycle is just too low -- it's not worth it to me. Bye.
>>
>> Translation: If you agree with him you are the greatest. If you
>> disagree with him you are lower than the lowest layer of whale
>> $hit in the deepest part of the ocean.
>
> And there's the problem: whatever somebody actually says, you'll
> translate it into what it suits you to have them say.

Defending your friend even when he is wrong is admirable but
why is your translation better than mine? Incidentally, that was
humor based on my time at Texas A&M during the 1950's. Freshmen
had to admit to upper-classmen that they were lower than the
lowest ... You (and Roy) absolutely hate anyone who disagrees
with you and engage in hazing (ad hominem attacks) to try to chase
such a person away from the newsgroup. Why do you fear the facts?
You two guys consider yourselves to be such omniscient gurus and
never admit a mistake except maybe for an occasional typo.

Einstein is rolling over in his grave laughing at Roy's assertion
that photonic energy can "slosh around" in the transmission line.
Photonic energy always travels at the speed of light obeying the
laws of conservation of energy and momentum. (Shades of the court
that convicted Galileo to house arrest. If you think you are
capable of convicting me to house arrest, come on down to Madison
County, TX and meet all my cousins in law-enforcement. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1053. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:19:33 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <UDnre.57$%x4.3071084@news.sisna.com>
Source record: 75119

Yes, he is quite obviously as innocent as OJ... with his money, I think we knew that right off... still, it would interesting hearing how the jury arrived at that conclusion. It is almost like they were angry at the prosecutor and sending him a message with their verdict--as I expected them to find him guilty of at least the misdemeanor of furnishing wine to the kids...

John

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message news:d8kuphpib1@reader01.news.esat.net...
> MICHEAL JACKSON CLEARED OF ALL CHARGES
>
>
>

1054. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:27:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae094f_1@spool9-west.superfeed.net>
Source record: 75120

John Smith wrote:
> Yes, he is quite obviously as innocent as OJ...

Which proves that $500,000 lawers are better than $50,000
lawyers. Why are we surprised?
--
73, Cecil http://www.qsl.net/w5dxp

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1055. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:27:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11as23iq4taglc3@corp.supernews.com>
Source record: 75121

It depends.

First, ONLY IF THE TRANSMISSION LINE IS TERMINATED IN ITS CHARACTERISTIC IMPEDANCE: If the coax is 1/10 *electrical* wavelength, the delay is 36 degrees (360 * 1/10). If it's 1/10 *physical* wavelength (that is, the physical length of the line is 1/10 of a free space wavelength), the delay is 36/VF degrees where VF is the velocity factor.

IF THE TRANSMISSION LINE ISN'T TERMINATED IN ITS CHARACTERISTIC IMPEDANCE, the delay of voltage and current won't be the same and, depending on the load impedance, both can be very different from the delay when the line is terminated in its characteristic impedance. The voltage and current delays can be known only if the characteristic impedance of the line, the impedance of the load, and the electrical length of the line are known(*).

(*) Actually, you only need to know the ratio of the load impedance to the line's characteristic impedance and not their actual values.

Roy Lewallen, W7EL

ik3umt wrote:
> Hi all,
>
> What's the delay (in degrees) 1/10 lambda coax (for a given freq.)
> introduces considering its velocity factor ??
>

1056. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:49:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <083sa1lk66skao6vnpap8rrtc6id0i1n9s@4ax.com>
Source record: 75122

On Mon, 13 Jun 2005 17:17:39 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Shades of the court that convicted Galileo to house arrest.
There ya' go again.
Having problems dropping your balls off the Tower of Pisa?

1057. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:52:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <e7ore.639$Pa5.124@newssvr21.news.prodigy.com>
Source record: 75123

Cecil Moore wrote:
> Ian White GM3SEK wrote:
>
>> Cecil Moore wrote:
>>
>>> Roy Lewallen wrote:
>>>
>>>> It's really a shame -- on those rare instances where you can be
>>>> coaxed into commenting without being compelled to steer the subject
>>>> to your favorite obsession, you really do have a lot to offer. But
>>>> the duty cycle is just too low -- it's not worth it to me. Bye.
>>>
>>>
>>> Translation: If you agree with him you are the greatest. If you
>>> disagree with him you are lower than the lowest layer of whale
>>> $hit in the deepest part of the ocean.
>>
>>
>> And there's the problem: whatever somebody actually says, you'll
>> translate it into what it suits you to have them say.
>
>
> Defending your friend even when he is wrong is admirable but
> why is your translation better than mine? Incidentally, that was
> *humor* based on my time at Texas A&M during the 1950's. Freshmen
> had to admit to upper-classmen that they were lower than the
> lowest ... You (and Roy) absolutely hate anyone who disagrees
> with you and engage in hazing (ad hominem attacks) to try to chase
> such a person away from the newsgroup. Why do you fear the facts?
> You two guys consider yourselves to be such omniscient gurus and
> never admit a mistake except maybe for an occasional typo.
>
> Einstein is rolling over in his grave laughing at Roy's assertion
> that photonic energy can "slosh around" in the transmission line.
> Photonic energy always travels at the speed of light obeying the
> laws of conservation of energy and momentum. (Shades of the court
> that convicted Galileo to house arrest. If you think you are
> capable of convicting me to house arrest, come on down to Madison
> County, TX and meet all my cousins in law-enforcement. :-)

I guess people are getting sick and tired of your second-rate debating technique, Cecil. I've seen Roy admit to mistakes time and again, while the number of times you've admitted being wrong are essentially zero. If you want to get psychological about it, I think anyone could make

a good case that you're projecting your own failings onto other
people.
Like a few others on this newsgroup, I'm looking forward to
your piece in QEX. I have a theory, that people who develop theories of
energy - in your case, power - and then defend them as strongly and
hysterically, as you do, are closet perpetual motion enthusiasts.
It will be interesting to see whether or not my admittedly
crackpot (but not as crackpot as your ideas) theory is true in
your case.
73,
Tom Donaly, KA6RUH

1058. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 22:54:01 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <d8ore.3887$jX6.1455@newsread2.news.pas.earthlink.net>
Source record: 75124

Hey Al,

Don't let the nay-sayers in this NG bother you, and don't waste
your time arguing with them.

Some of them can't stand the thought that any antenna which differs
from their personal pet(s) might be good. Others can't grasp the
idea that when model predictions and actual results differ, it's the
results that count. Still others can't seem to understand that effects
too small to measure usually do not matter in the real world.

Your antenna is beautifully made, very reasonably priced, and
you are (apparently) making a successful small business with it.
Your customers are delighted, and refer their friends. You are
starting to attract imitators. How many of these accomplishments
can the nay-sayers claim?

Keep up the good work... the XYL and I love our three OSJs!
And they are now pretty much standard in our ARES/RACES
organization. NO complaints heard to date.

73, Ed, W6LOL

"Al" <Arrow146@aol.com> wrote in message
news:1118678546.128278.177880@g44g2000cwa.googlegroups.com...
<Sniped>
>I don't believe you can totally eliminate all current. There will always be
a small
>amount.

Agreed, but it is small enough I don't think most people could see a
difference in performance if it had a choke or not.
All I am saying, to say the antenna won't work with out a choke is just
wrong.

>I doubt I would change the antenna....Would make it cost more...
>I'd consider a super deluxe version for a higher price, if they wanted
>full 2 section decoupling...:/ And if I went that far, I'd use a dual
>5/8 design to get more gain. You'd be reinventing the isopole...:/
>MK

I have an "Isopole" here in the shop, it works good, maybe one of the
best
5/8 wave antennas I have ever tested. I think it could be built a
little better.
I have seen a lot of them that were broke.
But that is comparing apples to oranges

The OSJ is a simple 1/2 wave antenna that has 0 dBd gain.
No magic.
Again, I just think it is wrong to tell someone the antenna won't work
with out a choke.

73 Al Lowe N0IMW

1059. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:14:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Zqore.67$N%4.3330080@news.sisna.com>
Source record: 75175

I think this guy:
http://www.synchronizeduniverse.com/
and his collegues are about to bring us to a new renaissance of technology...

He is one of the few brave scientists with the cajones to step forward and say there is truth in the enigmas, aberrations and anomalies which have been witnessed for decades now--and ignored...

Undoubtably, if you think you knew the answers--you are going to have to rethink that attitude...

Much of this will cause changes in our "antenna religion" we now practice it today--perhaps even forcing us to construct a "scientific antenna theory" to hold the new redefined theory which is rising on the horizon.

If the ancient Gods of "antenna religion" were upset before--their state is soon to rise to a much greater level of anxiety... soon I expect "antenna zealots" to be running wild in the streets attempting to slay the blasphemous "antenna new agers."

Pays to keep an open mind...

Warmest regards,
John

1060. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:20:58 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ctore.95035$8S5.49192@bignews3.bellsouth.net>
Source record: 75176

If the tranmission line between the transmitter and the antenna has a velocity factor greater than unity, then you'll be able to hear yourself before you say it. That could be useful for politicians.

1061. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:29:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11as5m3o194jv4d@corp.supernews.com>
Source record: 75178

But all hollow waveguides have a velocity factor greater than unity. Why haven't the politicians taken advantage of it?

Roy Lewallen, W7EL

Hal Rosser wrote:
> If the tranmission line between the transmitter and the antenna has a
> velocity factor greater than unity, then you'll be able to hear yourself
> before you say it. That could be useful for politicians.
>
>

1062. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:29:11 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <WAore.95119$8S5.77675@bignews3.bellsouth.net>
Source record: 75177

Now if my spacecraft pulls up alongside, and I <<stomp it>> would you see my dust?
(by the way, you have to use sub-space communication at that speed, since there are laws against using electromagnetic devices near the speed of light.)
And - do gravity waves travel faster than light ? Is that how to keep in touch with the folks back home while on those space jaunts ?
;-)

"John Smith" <assemblywizard@gmail.com> wrote in message news:1p9re.84$Iv3.5397608@news.sisna.com...
> I pictured this, I am in a spacecraft doing the speed of light, I key
> the xmitter and begin a long winded rant, the antenna is monopole.
>
> Now the signal leaving the rear of the antenna appears to be leaving it
> at 2X the speed of light (allowing for the VF of space-ether), however,
> the signal off the very front, at least the width of the antenna
> conductor itself, cannot leave (since I am traveling at the speed of
> light the signal appears to just stay on the surface of the
> conductor)--what will happen?
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality, right
> before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

1063. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:39:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae1a34_2@spool9-west.superfeed.net>
Source record: 75179

Richard Clark wrote:
> On Mon, 13 Jun 2005 17:17:39 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>Shades of the court that convicted Galileo to house arrest.
>
> There ya' go again.

Yep, it keeps coming back to that regarding closed minds
incapable thinking an original thought.

> Having problems dropping your balls off the Tower of Pisa?

Yep, apparently I'm trying to drop them off the wrong side. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1064. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:43:53 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <IOore.95261$8S5.88995@bignews3.bellsouth.net>
Source record: 75180

I agree. The question assumes the coax is 1/10 wavelength considering VF. -
so 36 degrees is a slam-dunk.
But 'delay' infers there is another signal to be compared to for the delay.
If you compare the signal on one end of the coax to the signal on the other
end of the coax, then there's your delay.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42ae023c$1_1@spool9-west.superfeed.net...
> ik3umt wrote:
> > What's the delay (in degrees) 1/10 lambda coax (for a given freq.)
> > introduces considering its velocity factor ??
>
> Well, let's see. 1/10 of 360 degrees = 36 degrees.
> What am I missing?
> --
> 73, Cecil http://www.qsl.net/w5dxp

1065. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:46:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HVore.71$R25.3356716@news.sisna.com>
Source record: 75184

LOL Hal!!!

Yanno, there are rules and regulations covering spacecraft developing
the Horse Power to pass the speed of light (and I am jealous of your
hotrod!!!)--I may just have to turn you in to the "universal speed
cops!" <grin>

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:WAore.95119$8S5.77675@bignews3.bellsouth.net...
> Now if my spacecraft pulls up alongside, and I <<stomp it>> would you
> see my
> dust?
> (by the way, you have to use sub-space communication at that speed,
> since
> there are laws against using electromagnetic devices near the speed of
> light.)
> And - do gravity waves travel faster than light ? Is that how to keep
> in
> touch with the folks back home while on those space jaunts ?
> ;-)
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:1p9re.84$Iv3.5397608@news.sisna.com...
>> I pictured this, I am in a spacecraft doing the speed of light, I key
>> the xmitter and begin a long winded rant, the antenna is monopole.
>>
>> Now the signal leaving the rear of the antenna appears to be leaving
>> it
>> at 2X the speed of light (allowing for the VF of space-ether),
>> however,
>> the signal off the very front, at least the width of the antenna
>> conductor itself, cannot leave (since I am traveling at the speed of
>> light the signal appears to just stay on the surface of the
>> conductor)--what will happen?
>>
>> Warmest regards,
>> John
>> --
>> Watching the cutting edge of yesterday replay--in virtual reality,
>> right
>> before my eyes--in real time!
>> Thirty year old technology--wasn't it amazing?

>>
>>
>
>

1066. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:49:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dm6sa1t41v2otuml9g2jk2sa2cnakhiiik@4ax.com>
Source record: 75182

On Mon, 13 Jun 2005 18:39:47 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> Having problems dropping your balls off the Tower of Pisa?
>Yep, apparently I'm trying to drop them off the wrong side.
Explains your outrageous gaffs. Did they deflect, reflect, or
diffract?

1067. Re: Microwave oven magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:50:06 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <xUore.95322$8S5.51339@bignews3.bellsouth.net>
Source record: 75181

That's right - use those magnetrons - the cell phones are too slow.
Folks actually hold them right next to their ear and transmit.

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message
news:YZ8M7XumYerCFA5w@ifwtech.co.uk...
> Frank wrote:
> >>> 73,
> >>>
> >>> Frank
> >>>
> >>> PS I often post responses, and never see them. That is why I started
a
> >>> new thread. Anybody else get the same problem?
> >> How long do you wait -- your response is there just fine.
> >
> >Obviously not long enough. Usually when I post the message it is there
> >instantly. In some recent posts they have never appeared, even days
after.
> >This last one took a couple of hours.
>
> Must be all those people out there with microwave ovens and Pringles
> cans...
>
> Competition for this year's Darwin Awards is going to be so hot, they're
> trying to kill themselves two ways at once.
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

1068. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:51:49 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7Wore.95340$8S5.48297@bignews3.bellsouth.net>
Source record: 75183

Good point - maybe they're not privy to that info

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11as5m3o194jv4d@corp.supernews.com...
> But all hollow waveguides have a velocity factor greater than unity. Why
> haven't the politicians taken advantage of it?
>
> Roy Lewallen, W7EL
>
> Hal Rosser wrote:
> > If the tranmission line between the transmitter and the antenna has a
> > velocity factor greater than unity, then you'll be able to hear yourself
> > before you say it. That could be useful for politicians.
> >
> >

1069. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-13 23:57:42 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <F%ore.95397$8S5.52567@bignews3.bellsouth.net>
Source record: 75185

But on previous threads, I thought you said that speed was not a valid unit
for measure because speed depends on time, which depends on the spin of the
earth on its axis.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:1p9re.84$Iv3.5397608@news.sisna.com...
> I pictured this, I am in a spacecraft doing the speed of light, I key
> the xmitter and begin a long winded rant, the antenna is monopole.
>
> Now the signal leaving the rear of the antenna appears to be leaving it
> at 2X the speed of light (allowing for the VF of space-ether), however,
> the signal off the very front, at least the width of the antenna
> conductor itself, cannot leave (since I am traveling at the speed of
> light the signal appears to just stay on the surface of the
> conductor)--what will happen?
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality, right
> before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

1070. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 00:09:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae2125$1_2@spool9-west.superfeed.net>
Source record: 75186

Tom Donaly wrote:
> I guess people are getting sick and tired of your second-rate debating
> technique, Cecil. I've seen Roy admit to mistakes time and again, while
> the number of times you've admitted being wrong are essentially zero.

Typically biased, Tom. I have admitted I was wrong at a rate of
at least three to one compared to Roy. I feel sorry for you if you
agree with Roy that when a 50 ohm SWR meter reads 4:1, the system
is Z0-matched to 50 ohms. I feel sorry for you if you insist a lumped
circuit analysis is appropriate for a distributed network problem.
I feel sorry for you if you insist that EM waves can exist without
their associated ExH energy. I feel sorry for you if you deny that
interference plays any part in transmission line matching.

How about Roy's assertion that photonic energy "sloshes" back and
forth in a transmission line? I don't recall Einstein ever saying
such was even possible. Do you really believe that photonic energy
"sloshes" back and forth? If so, I've got some "Ocean Front Property
in Arizona" reserved especially for you.

You guys have a good old boys network going here that ignores the
laws of physics and reminds me of the Spanish Inquisition. Sorry,
once in history was once too many.
--
73, Cecil http://www.qsl.net/w5dxp

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1071. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 00:10:55 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <igpre.74$WL7.3555486@news.sisna.com>
Source record: 75187

Hal:

You got me wrong, while the false perception of time IS encouraged by "speed" (movement actually)... the reverse is NOT proof of time--I do accept the fact that movement is real... movement is NOT dependent on time... the "religious belief" in time is dependent on the mis-interpretation of movement...

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message news:F%ore.95397$8S5.52567@bignews3.bellsouth.net...
> But on previous threads, I thought you said that speed was not a valid
> unit
> for measure because speed depends on time, which depends on the spin
> of the
> earth on its axis.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:1p9re.84$Iv3.5397608@news.sisna.com...
>> I pictured this, I am in a spacecraft doing the speed of light, I key
>> the xmitter and begin a long winded rant, the antenna is monopole.
>>
>> Now the signal leaving the rear of the antenna appears to be leaving
>> it
>> at 2X the speed of light (allowing for the VF of space-ether),
>> however,
>> the signal off the very front, at least the width of the antenna
>> conductor itself, cannot leave (since I am traveling at the speed of
>> light the signal appears to just stay on the surface of the
>> conductor)--what will happen?
>>
>> Warmest regards,
>> John
>> --
>> Watching the cutting edge of yesterday replay--in virtual reality,
>> right
>> before my eyes--in real time!
>> Thirty year old technology--wasn't it amazing?
>>
>>
>
>

1072. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 00:13:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ae2207$1_2@spool9-west.superfeed.net>
Source record: 75188

Hal Rosser wrote:
> Now if my spacecraft pulls up alongside, and I <<stomp it>> would you see my
> dust?

Nope, your foot cannot move when you are traveling at the
speed of light. Neither can dust. Time stands still so
absolutely nothing happens.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1073. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 00:32:08 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <cApre.49207$on1.46155@clgrps13>
Source record: 75189

"John Smith" <assemblywizard@gmail.com> wrote in message
news:p5nre.51$Ar4.3040439@news.sisna.com...
>I would think a 1KW or greater magnetron run off a non-filtered and
>particularly dirty, but rectified dc supply (you could even feed a ramp or
>triangle dc power wave to the magnetron to cause frequency sweep) and into
>a sloppy waveguide exhibiting multiple resonant frequencies would knock out
>all cell phone and wireless communications on shf+ freqs for blocks if not
>miles... you would probably start jamming the cell towers for miles around
>and have every "pirate transmitter" hunter in America on your tail... in a
>large city/metro area you would cause havoc to break out--this WOULD BE ONE
>SERIOUS OFFENSE!!! If caught, you would learn to call prison your home!
>
> And Bruce, in the cell next to you, would fall in love with you!
>
> Not to mention the danger of exposure to the freqs in question--this would
> be best left alone...

Interesting paper concerning microwave magnetrons at
http://www-personal.engin.umich.edu/~mcjz/papers/neculaes_tps04.pdf

Mention is made of magnetron cavity Qs in excess of 200. The spectral width of such a source, at the 3 dB points, would therefore be about 12 MHz. Not really suitable for CW, but far better than my observations. Comments about poor power supplies are probably correct.

It is interesting to note that the spectral purity of oven magnetrons is of concern with regards to interference to the 2.4 GHz ISM band.

There are techniques for the stabilization of magnetrons when used for Moving Target Indication (MTI) on RADAR systems.

The fact is it is very easy to build a high stability synthesizer -- with spectral widths of the order of 1 or 2 Hz -- at 2.4 GHz. Amplification is another matter, since a 2.4 GHz TWT probably costs around $7,000.

73,

Frank

1074. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 01:06:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <66bsa1lujaorgttm6ptqckkq1e8tvcllqq@4ax.com>
Source record: 75190

On Mon, 13 Jun 2005 19:09:25 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>You guys have a good old boys network going here that ignores the
>laws of physics
C'mon, now, you couldn't even get diffraction working right and you
couldn't even compute the math on reflection. If we are good ol'
boys, that must make you the hayseed of physics.

1075. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 01:14:35 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <%bqre.800$Pa5.509@newssvr21.news.prodigy.com>
Source record: 75191

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> I guess people are getting sick and tired of your second-rate debating
>> technique, Cecil. I've seen Roy admit to mistakes time and again, while
>> the number of times you've admitted being wrong are essentially zero.
>
>
> Typically biased, Tom. I have admitted I was wrong at a rate of
> at least three to one compared to Roy. I feel sorry for you if you
> agree with Roy that when a 50 ohm SWR meter reads 4:1, the system
> is Z0-matched to 50 ohms. I feel sorry for you if you insist a lumped
> circuit analysis is appropriate for a distributed network problem.
> I feel sorry for you if you insist that EM waves can exist without
> their associated ExH energy. I feel sorry for you if you deny that
> interference plays any part in transmission line matching.
>
> How about Roy's assertion that photonic energy "sloshes" back and
> forth in a transmission line? I don't recall Einstein ever saying
> such was even possible. Do you really believe that photonic energy
> "sloshes" back and forth? If so, I've got some "Ocean Front Property
> in Arizona" reserved especially for you.
>
> You guys have a good old boys network going here that ignores the
> laws of physics and reminds me of the Spanish Inquisition. Sorry,
> once in history was once too many.

Vintage Moore. As I said, Cecil, people are finally getting tired
of your silly postings. Now you've been plonked. Next you'll be
replonked, again and again until all your posts go unread.
Maybe you can convince yourself you're an unrecognized genius.
It's always good to have that to fall back on.
73,
Tom Donaly, KA6RUH

1076. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 01:18:09 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118711889.120696.254650@g44g2000cwa.googlegroups.com>
Source record: 75192

>Hey Al,
>
>Don't let the nay-sayers in this NG bother you, and don't waste
>your time arguing with them.
>
>Some of them can't stand the thought that any antenna which differs
>from their personal pet(s) might be good. Others can't grasp the
>idea that when model predictions and actual results differ, it's the
>results that count. Still others can't seem to understand that effects
>too small to measure usually do not matter in the real world.
>
>Your antenna is beautifully made, very reasonably priced, and
>you are (apparently) making a successful small business with it.
>Your customers are delighted, and refer their friends. You are
>starting to attract imitators. How many of these accomplishments
>can the nay-sayers claim?

>Keep up the good work... the XYL and I love our three OSJs!
>And they are now pretty much standard in our ARES/RACES
>organization. NO complaints heard to date.

Thanks, Ed, W6LOL

You are absolutely right.
There is an old saying "You can't please all the people all the time".
That's why I put the Money Back Guarantee on everything I sell.
The return rate is less than 1 in 1,000 units sold. That's good enough
for me.

That's it, I am done. Thanks for all the fun. 73 Al Lowe N0IMW

1077. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:03:18 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <4kesa1l0mmpq7dptre6plru2hmumsrrj17@4ax.com>
Source record: 75193

On Mon, 13 Jun 2005 18:07:13 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>In article <42acc50b$1_1@spool9-west.superfeed.net>,
>Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>> By open stub, you mean there is no loop at the bottom of the "J"?
>
>>He means the bottom of the stub is the feedpoint, like this:
>>
>>+---
>>|
>>FP
>>|
>>+-----------------
>>
>>And that looks like an unbalanced feedpoint so it should result
>>in common-mode currents, sorta like an off center-fed dipole.
>
>If I recall correctly, Cebik has some discussion and modelling of such
>open-sleeve J-pole designs in his "Tales and Technicals" section.
>Start at http://www.cebik.com/vhf/jp1.html and go down about half-way.
>
>The version of the "non-standard J-pole" which Cebik models is fed at
>bottom center, in a dimensionally-symmetrical way. His current plot
>seems to show equal currents at this feedpoint, and this would seem to
>make the use of a choke or balun on the feedline somewhat less
>significant than with a standard J-pole.

But he says, "However, since the currents on either side of the
feedpoint are not balanced, a choke balun is mandatory to suppress
unwanted currents on the feedline."

>
>Cebik's model would need to be modified somewhat apply to the Arrow
>open-sleeve J-pole, as the Arrow is fed at the very base of the one
>element rather than halfway between the two.

That's how I modeled it, although it makes very little difference in
the results.

>
>Anybody care to model up the Arrow, with all three elements included,
>with and without a separate wire representing the outside of the coax?

Done, before you asked.[g]

1078. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:07:55 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <1_qre.87$FY1.4012159@news.sisna.com>
Source record: 75194

Al:

This room is less about antennas than it is about egos, hero worship, and the "good ole boys club."

I have seen egos here large enough to chase all the air from the room--leaves one breathless... a couple of these guys are even "LEGENDS IN THEIR OWN MINDS!", now that's gotta count for something!

Perhaps we will eventually get some 25 to 45 year olds in here and restore some progressive thinking, discussion, debate and argument which civilized men can conduct in productive ways... those who have had their day in the sun (or 15 minutes of fame) will eventually move on.

Right now, there is little point in fighting the "status quo" here--they turn like a pack of wild dogs in attack if even someone poses an original thought, or explores an unconventional path... one poor long tall drink of water from Texas is taking his lickings for this now.

It does have the effect of chasing off fresh new minds which would be of interest to us who would enjoy group participation--rather than a lecture by a dinosaur (and I can say that even being close to "dinosaur age" myself.)

Hang in there OM... if you have measured those swr's and know your product, people will give it a go...

... the construction seems well done and should provide service for many years...

Should be more than satisfactory for someone just wanting to get on the band(s) and not become an antenna guru. Heck, with an L-Match on it a guy might be surprised how wide that bandwidth can become...

Warmest regards,
John

"Al" <Arrow146@aol.com> wrote in message
news:1118711889.120696.254650@g44g2000cwa.googlegroups.com...
>Hey Al,
>
>Don't let the nay-sayers in this NG bother you, and don't waste
>your time arguing with them.
>
>Some of them can't stand the thought that any antenna which differs
>from their personal pet(s) might be good. Others can't grasp the
>idea that when model predictions and actual results differ, it's the

>results that count. Still others can't seem to understand that effects
>too small to measure usually do not matter in the real world.
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>Your antenna is beautifully made, very reasonably priced, and
>you are (apparently) making a successful small business with it.
>Your customers are delighted, and refer their friends. You are
>starting to attract imitators. How many of these accomplishments
>can the nay-sayers claim?

>Keep up the good work... the XYL and I love our three OSJs!
>And they are now pretty much standard in our ARES/RACES
>organization. NO complaints heard to date.

Thanks, Ed, W6LOL

You are absolutely right.
There is an old saying "You can't please all the people all the time".
That's why I put the Money Back Guarantee on everything I sell.
The return rate is less than 1 in 1,000 units sold. That's good enough
for me.

That's it, I am done. Thanks for all the fun. 73 Al Lowe N0IMW

1079. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:12:01 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <04fsa151mspevmrmonup21pendcebobnb8@4ax.com>
Source record: 75195

On Mon, 13 Jun 2005 22:45:19 +0100, "Christopher O'Callaghan"
<d.ocallaghan@iolfree.ie> wrote:

>MICHEAL JACKSON CLEARED OF ALL CHARGES

Excuse me, but "Cleared of all charges" or "Not guilty" are not the
same as "innocent".

1080. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:18:08 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <z7rre.90$ob2.4159611@news.sisna.com>
Source record: 75196

Wes:

I disagree, and as tough as it is, I am an American first with real respect for the forefathers...

... and a person suspicious to Jackson's motives and actions second...

Truth is, you run the gauntlet and face a jury of your peers--if found innocent, YOU ARE!!!

Any man who would deny that is worse than the criminal which may go free...

To sum it up short and sweet--forefathers believed it is better to let a hundred guilty men go free than to convict one innocent man... you can read Jefferson's, Washington's and Franklins' personal writings to verify this is correct...

Warmest regards,
John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message news:04fsa151mspevmrmonup21pendcebobnb8@4ax.com...
> On Mon, 13 Jun 2005 22:45:19 +0100, "Christopher O'Callaghan"
> <d.ocallaghan@iolfree.ie> wrote:
>
>>MICHEAL JACKSON CLEARED OF ALL CHARGES
>
> Excuse me, but "Cleared of all charges" or "Not guilty" are not the
> same as "innocent".
>

1081. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:28:22 UTC
From: Adelphia <dboley@adelphia.net>
Message-ID: <XPudneWyup5T3TPfRVn-hQ@adelphia.com>
Source record: 75197

Regardless, the law simply says that he is not guilty of the charges AS PRESENTED. Innocence is a nice thought but not factual. If double jeopardy did not exist his so-called "innocence" might be turned into a guilty verdict. So, once again for the stubborn of thought - he is not innocent. Rather he is NOT GUILTY OF THE CHARGES AS PRESENTED. The jury has already said that they did not believe the PRESENTATION OF THE CHARGES beyond a reasonable doubt.Let his publicity machine proclaim "innocence". They will do a masterful job and lure loving teens into expensive concerts.

In the meantime let his antenna wire wrap around his.......

"John Smith" <assemblywizard@gmail.com> wrote in message
news:z7rre.90$ob2.4159611@news.sisna.com...
> Wes:
>
> I disagree, and as tough as it is, I am an American first with real
> respect for the forefathers...
>
> ... and a person suspicious to Jackson's motives and actions second...
>
> Truth is, you run the gauntlet and face a jury of your peers--if found
> innocent, YOU ARE!!!
>
> Any man who would deny that is worse than the criminal which may go
> free...
>
> To sum it up short and sweet--forefathers believed it is better to let a
> hundred guilty men go free than to convict one innocent man... you can
> read Jefferson's, Washington's and Franklins' personal writings to verify
> this is correct...
>
> Warmest regards,
> John
>
> "Wes Stewart" <n7ws_@*yahoo.com> wrote in message
> news:04fsa151mspevmrmonup21pendcebobnb8@4ax.com...
>> On Mon, 13 Jun 2005 22:45:19 +0100, "Christopher O'Callaghan"
>> <d.ocallaghan@iolfree.ie> wrote:
>>
>>>MICHEAL JACKSON CLEARED OF ALL CHARGES
>>
>> Excuse me, but "Cleared of all charges" or "Not guilty" are not the
>> same as "innocent".
>>
>

>

1082. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:32:00 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <2irre.119598$J25.88003@bignews6.bellsouth.net>
Source record: 75198

OK - I stand corrected again.
So movement IS real, but time is not real. Speed depends on movement over a distance in a measured time - so the 'speed of light' does not exist.
But it MUST exist - Einstein squared it.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:igpre.74$WL7.3555486@news.sisna.com...
> Hal:
>
> You got me wrong, while the false perception of time IS encouraged by
> "speed" (movement actually)... the reverse is NOT proof of time--I do
> accept the fact that movement is real... movement is NOT dependent on
> time... the "religious belief" in time is dependent on the
> mis-interpretation of movement...
>
> Warmest regards,
> John
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:F%ore.95397$8S5.52567@bignews3.bellsouth.net...
> > But on previous threads, I thought you said that speed was not a valid
> > unit
> > for measure because speed depends on time, which depends on the spin
> > of the
> > earth on its axis.
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:1p9re.84$Iv3.5397608@news.sisna.com...
> >> I pictured this, I am in a spacecraft doing the speed of light, I key
> >> the xmitter and begin a long winded rant, the antenna is monopole.
> >>
> >> Now the signal leaving the rear of the antenna appears to be leaving
> >> it
> >> at 2X the speed of light (allowing for the VF of space-ether),
> >> however,
> >> the signal off the very front, at least the width of the antenna
> >> conductor itself, cannot leave (since I am traveling at the speed of
> >> light the signal appears to just stay on the surface of the
> >> conductor)--what will happen?
> >>
> >> Warmest regards,
> >> John
> >> --
> >> Watching the cutting edge of yesterday replay--in virtual reality,

> >> right
> >> before my eyes--in real time!
> >> Thirty year old technology--wasn't it amazing?
> >>
> >>
> >
> >
>
>

1083. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:45:28 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <8vgsa11imkcllaoigmdg2mbjlj6p2cjqkc@4ax.com>
Source record: 75199

On Mon, 13 Jun 2005 22:28:22 -0400, "Adelphia" <dboley@adelphia.net>
wrote:

>In the meantime let his antenna wire wrap around his.......

Hey, how 'bout the blond-headed lady who released a white dove with
each proclamation of "Not guilty"?

I've seen it all, now...

bob
k5qwg

1084. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:52:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <KDrre.93$dc2.4198542@news.sisna.com>
Source record: 75200

The movement of light, mainly since it is so stable (however, light may not move at the same speed in all corners of the universe--and under all conditions) can be used to provide the human mind with the belief in the myth of time...

Time to us is the rotation of the earth, measured in 1/24 units of a full revolution, and fractions thereof.

Also, wwv and wwvh use atomic clocks, they count how many atomic particles are lost in decay of radioactive elements to provide the myth of time...

... hourglasses use the rate of sand falling through a narrow opening...

... clocks count the spinning of a gear or the frequency of a quartz vibration...

... time is movement/change... you cannot hold time in a bottle--you CANNOT measure time--you only measure movement...

... formulas which use time in them are just incomplete at the present time, eventually a more accurate formula will be developed in many of these cases...

... those formulas which incorporate the movement of light might be correct... that movement is real at least... (well, I think it is real <grin>)

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:2irre.119598$J25.88003@bignews6.bellsouth.net...
> OK - I stand corrected again.
> So movement IS real, but time is not real. Speed depends on movement
> over a
> distance in a measured time - so the 'speed of light' does not exist.
> But it MUST exist - Einstein squared it.
>
>
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> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:igpre.74$WL7.3555486@news.sisna.com...
>> Hal:
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>> You got me wrong, while the false perception of time IS encouraged by
>> "speed" (movement actually)... the reverse is NOT proof of time--I do

>> accept the fact that movement is real... movement is NOT dependent
>> on
>> time... the "religious belief" in time is dependent on the
>> mis-interpretation of movement...
>>
>> Warmest regards,
>> John
>>
>> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
>> news:F%ore.95397$8S5.52567@bignews3.bellsouth.net...
>> > But on previous threads, I thought you said that speed was not a
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>> > unit
>> > for measure because speed depends on time, which depends on the
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>> > of the
>> > earth on its axis.
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>> > "John Smith" <assemblywizard@gmail.com> wrote in message
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>> >> I pictured this, I am in a spacecraft doing the speed of light, I
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>> >> the xmitter and begin a long winded rant, the antenna is monopole.
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>> >>
>> >>
>> >
>> >
>>
>>
>
>

1085. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:56:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ZHrre.95$X63.4422757@news.sisna.com>
Source record: 75201

... as I said, I fear men with no, respect for and, devotion to
following the constitution as much as the criminals themselves--perhaps
even more...

Still, Jackson would not get within a mile of my children... (course
they are all grown now), I recommend others make sure of the same...

Warmest regards,
John

"Adelphia" <dboley@adelphia.net> wrote in message
news:XPudneWyup5T3TPfRVn-hQ@adelphia.com...
> Regardless, the law simply says that he is not guilty of the charges
> AS PRESENTED. Innocence is a nice thought but not factual. If double
> jeopardy did not exist his so-called "innocence" might be turned into
> a guilty verdict. So, once again for the stubborn of thought - he is
> not innocent. Rather he is NOT GUILTY OF THE CHARGES AS PRESENTED. The
> jury has already said that they did not believe the PRESENTATION OF
> THE CHARGES beyond a reasonable doubt.Let his publicity machine
> proclaim "innocence". They will do a masterful job and lure loving
> teens into expensive concerts.
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> In the meantime let his antenna wire wrap around his.......
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> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:z7rre.90$ob2.4159611@news.sisna.com...
>> Wes:
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>> I disagree, and as tough as it is, I am an American first with real
>> respect for the forefathers...
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>> ... and a person suspicious to Jackson's motives and actions
>> second...
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>> Truth is, you run the gauntlet and face a jury of your peers--if
>> found innocent, YOU ARE!!!
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>> Any man who would deny that is worse than the criminal which may go
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>> To sum it up short and sweet--forefathers believed it is better to
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>> you can read Jefferson's, Washington's and Franklins' personal
>> writings to verify this is correct...

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>> Warmest regards,
>> John
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>>> On Mon, 13 Jun 2005 22:45:19 +0100, "Christopher O'Callaghan"
>>> <d.ocallaghan@iolfree.ie> wrote:
>>>
>>>>MICHEAL JACKSON CLEARED OF ALL CHARGES
>>>
>>> Excuse me, but "Cleared of all charges" or "Not guilty" are not the
>>> same as "innocent".
>>>
>>
>>
>
>

1086. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 02:57:30 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <uIrre.818$Pa5.363@newssvr21.news.prodigy.com>
Source record: 75202

Was that a white dove or a bleached pigeon?
KM6AB

Bob Miller wrote:
> On Mon, 13 Jun 2005 22:28:22 -0400, "Adelphia" <dboley@adelphia.net>
> wrote:
>
>
>>In the meantime let his antenna wire wrap around his.......
>
>
> Hey, how 'bout the blond-headed lady who released a white dove with
> each proclamation of "Not guilty"?
>
> I've seen it all, now...
>
> bob
> k5qwg
>
>

1087. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 03:00:21 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <7Lrre.96$uA2.4301985@news.sisna.com>
Source record: 75203

Mike:

Small turkeys?

John

"Mike" <km6ab@REMOVETHIS.pacbell.net> wrote in message
news:uIrre.818$Pa5.363@newssvr21.news.prodigy.com...
> Was that a white dove or a bleached pigeon?
> KM6AB
>
> Bob Miller wrote:
>> On Mon, 13 Jun 2005 22:28:22 -0400, "Adelphia" <dboley@adelphia.net>
>> wrote:
>>
>>
>>>In the meantime let his antenna wire wrap around his.......
>>
>>
>> Hey, how 'bout the blond-headed lady who released a white dove with
>> each proclamation of "Not guilty"?
>>
>> I've seen it all, now...
>>
>> bob
>> k5qwg
>>

1088. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 03:18:34 UTC
From: Buck <iam@this.site>
Message-ID: <21jsa1hlmk2ud1djsf51j1iuqn56qt1dlh@4ax.com>
Source record: 75204

On Wed, 08 Jun 2005 12:23:50 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>On Wed, 08 Jun 2005 12:52:01 -0400, Buck <iam@this.site> wrote:
>
>>Pardon me while I learn from this discussion.
>
>Hold on Buck.
>
>So far there has been very little "learning" to be done from this
>discussion.
>
>I dislike getting personal but I strongly suggest that you reject
>anything Fred has put forth. Some of what he says is correct, but for
>the most part you are being led astray. Since you don't yet have the
>skills to separate the good from the BS, the safest thing to do is
>ignore it all.
>
>For example he has suggested that an all-band antenna can be nothing
>more than a 130' dipole fed through 100' of 450 ohm line to which you
>connect a 50 ohm coax and "your rig will be happy."
>
>Let's examine this premise, shall we.
>
>If you don't already have it, download the free version of EZNEC.
>
>www.eznec.com
>
>If you have MS Excel do the following. If you don't skip down below
>the dotted line.
>

I haven't been ignoring this thread, I have been trying to figure out
eznec. I have managed to make it display a dipole and a two element
beam. I'll need to learn the more advanced features.

I'll try what you say If I can understand the program well enough to
do so.

--
73 for now
Buck
N4PGW

1089. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 04:08:57 UTC
From: nm5k@wt.net
Message-ID: <1118722137.607388.157900@g43g2000cwa.googlegroups.com>
Source record: 75205

Again, I just think it is wrong to tell someone the antenna won't work
with out a choke.

Well, obviously I've never said that. But I have done many
tests with 1/2 waves with and without decoupling sections.
They were always improved with the extra section.
I just mainly wanted to clarify that no matter how the
antenna is fed, or no matter the SWR, which is totally
irrelevant, you still have to contend with the spillover
currents. The only cure for that is a decoupling section,
choke, or whatever.
As far as I know, the isopole was electrically the best
dual 5/8 ever built as far as decoupling the line. I've
never heard of any competing designs beating it.
The ringo ranger II is slightly inferior.
But the isopole is also pretty ugly...Looks like a missile...
I'm not saying it doesn't work ok now. I'm sure it does.
I'm just saying it would likely work a bit better with it, and
be more stable as far as common mode currents
per users at different sites. I agree. I don't think you
should change it...There are other designs if you want
higher performance..Anyone wanting to further
decouple the line can add their own chokes, etc..
The ringo ranger II was cushcrafts answer to the isopole.
Before that, they sold the ringo ranger. It was basically
fed the same way as the J pole, except using the gamma
loop. Like the version you use, the gamma loop ain't
half bad at decoupling the line in itself. It was fairly usable
as is, and many used it for a few years...Then the isopole
came out, with basically the same dual 5/8 design, but
with decoupling. It just tore the ringo ranger a new one...
Smoked it....Cushcraft knew they had a major problem.
So they designed a decoupling section to add below the
regular ringo ranger. Made a *huge* difference in performance
for most users. I know myself, I tested it with and without the
decoupling section, just out of curiosity. On local repeaters,
the average difference was 3-4 S units, using an icom 22u.
And thats totally reciprical. On VHF/UHF, I've found that
decoupling is generally more important to low angle gain,
that any gains from element lengths, or collinears, etc...
A well decoupled 1/4 wave ground plane can easily match or
beat a poorly decoupled much taller ringo ranger with no section...
Myself....I prefer a small yagi....:/ I have a three el for FM,
vertical...

Smokes any vertical....MK

1090. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 04:33:41 UTC
From: nm5k@wt.net
Message-ID: <1118723621.030322.304090@g43g2000cwa.googlegroups.com>
Source record: 75206

Don't let the nay-sayers in this NG bother you, and don't waste
your time arguing with them.

At this point, I don't consider my thoughts, arguing....
Just stating the fairly obvious...Don't ignore spillover
currents if you want superior performance from an elevated
vertical on VHF/UHF.

Some of them can't stand the thought that any antenna which differs
from their personal pet(s) might be good.

I could care less...He didn't invent the J pole...

Others can't grasp the
idea that when model predictions and actual results differ, it's the
results that count.

The actual results count...I could care less about the models.
I've tested all this in the real world, with real antennas.

Still others can't seem to understand that effects
too small to measure usually do not matter in the real world.

Total BS in most cases....I seen the lack of decoupling totally
ruin otherwise decent antennas... I've personally tested and
seen easy 3-4 s unit differences in the same exact antenna , with
and without the decoupling section connected.
Decoupling is critical to high performance on VHF/UHF.
All the best designs include it.

Your antenna is beautifully made, very reasonably priced, and
you are (apparently) making a successful small business with it.
Your customers are delighted, and refer their friends.

Yes, I agree. I know many people that use his arrow yagi's
for SAT work...Just because his J pole doesn't have a decoupling
device doesn't mean he doesn't build good antennas...Not that many
people decouple J poles...I've never understood why...But there it
is...

You are
starting to attract imitators.

The J pole has been imitated numerous times....
Or are you talking about arrows?

How many of these accomplishments
can the nay-sayers claim?

Ugh....I'm not in the antenna biz...But If I were....but If I were....
I would decouple *all* my VHF/UHF verticals.
Myself, I doubt I would even sell a J pole...
I'm not particularly fond of the design...
I would sell a super duper isopole II.....
Decoupling out the ying yang...
And yes, I'm sure it would cost more than $39.00...
MK

1091. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 04:38:28 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7037c$42ae5f48$97d55d24$574@ALLTEL.NET>
Source record: 75207

The biggest problem I have run into with your J-pole is that it sets up a lot of wind vibration noise at 70 MPH when mounted on the roof of my Subaru. :>)

"Al" <Arrow146@aol.com> wrote in message news:1118678546.128278.177880@g44g2000cwa.googlegroups.com...
<Sniped>
>I don't believe you can totally eliminate all current. There will always be a small
>amount.

Agreed, but it is small enough I don't think most people could see a difference in performance if it had a choke or not.
All I am saying, to say the antenna won't work with out a choke is just wrong.

>I doubt I would change the antenna....Would make it cost more...
>I'd consider a super deluxe version for a higher price, if they wanted
>full 2 section decoupling...:/ And if I went that far, I'd use a dual
>5/8 design to get more gain. You'd be reinventing the isopole...:/
>MK

I have an "Isopole" here in the shop, it works good, maybe one of the best
5/8 wave antennas I have ever tested. I think it could be built a little better.
I have seen a lot of them that were broke.
But that is comparing apples to oranges
The OSJ is a simple 1/2 wave antenna that has 0 dBd gain.
No magic.
Again, I just think it is wrong to tell someone the antenna won't work with out a choke.

73 Al Lowe N0IMW

1092. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 04:52:21 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <9Ftre.111$ew5.6182023@news.sisna.com>
Source record: 75211

nm5k:

I agree with you on some you say, and on some of it disagree...

Some, like me, care most about getting something up you can use and/or tinker with... and I work with computer models all day, I like to get my hands dirty...

Others want it to be perfect "on paper"...

This is not a case of one being right over the other--and no matter what their goal--I would like to accept it as a valid goal without question.

It helps to try to formulate answers to help the particular person in question towards obtaining their goals--as opposed to impressing them with ones personal knowledge--well, unless that is what they wish and/or that is acceptable to them.

There are men with good sound knowledge here, I do not question that--just sometimes they could present it in a manner which is more pleasant and tolerant... either way I will accept it, however I think some of the "faint at heart" are chased away...

And in any case, it does not hurt to know the fine details of something--take the balun/choke and feedline currents for example--heck, you can run with the currents... and, if you ever get tired and wonder what it would be like to run without them, doesn't hurt to have gained the knowledge to quickly wind a current balun and chuck it in the line...

Warmest regards,
John

<nm5k@wt.net> wrote in message
news:1118723621.030322.304090@g43g2000cwa.googlegroups.com...
> Don't let the nay-sayers in this NG bother you, and don't waste
> your time arguing with them.
>
> At this point, I don't consider my thoughts, arguing....
> Just stating the fairly obvious...Don't ignore spillover
> currents if you want superior performance from an elevated
> vertical on VHF/UHF.
>
> Some of them can't stand the thought that any antenna which differs
> from their personal pet(s) might be good.
>
> I could care less...He didn't invent the J pole...

>
>
> Others can't grasp the
> idea that when model predictions and actual results differ, it's the
> results that count.
>
> The actual results count...I could care less about the models.
> I've tested all this in the real world, with real antennas.
>
> Still others can't seem to understand that effects
> too small to measure usually do not matter in the real world.
>
> Total BS in most cases....I seen the lack of decoupling totally
> ruin otherwise decent antennas... I've personally tested and
> seen easy 3-4 s unit differences in the same exact antenna , with
> and without the decoupling section connected.
> Decoupling is critical to high performance on VHF/UHF.
> All the best designs include it.
>
> Your antenna is beautifully made, very reasonably priced, and
> you are (apparently) making a successful small business with it.
> Your customers are delighted, and refer their friends.
>
> Yes, I agree. I know many people that use his arrow yagi's
> for SAT work...Just because his J pole doesn't have a decoupling
> device doesn't mean he doesn't build good antennas...Not that many
> people decouple J poles...I've never understood why...But there it
> is...
>
> You are
> starting to attract imitators.
>
> The J pole has been imitated numerous times....
> Or are you talking about arrows?
>
> How many of these accomplishments
> can the nay-sayers claim?
>
> Ugh....I'm not in the antenna biz...But If I were....but If I were....
> I would decouple *all* my VHF/UHF verticals.
> Myself, I doubt I would even sell a J pole...
> I'm not particularly fond of the design...
> I would sell a super duper isopole II.....
> Decoupling out the ying yang...
> And yes, I'm sure it would cost more than $39.00...
> MK
>

1093. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 04:53:28 UTC
From: nm5k@wt.net
Message-ID: <1118724808.848624.275180@z14g2000cwz.googlegroups.com>
Source record: 75208

This room is less about antennas than it is about egos, hero worship,
and the "good ole boys club."

Speak for yourself....I rarely deviate from the topic of
the NG...On the other hand....That John Smith/Bret dude
often goes off on weird tangents.......

Hang in there OM... if you have measured those swr's and know your
product, people will give it a go...

SWR has absolutely nothing to do with common mode
currents..
Even someone just wanting to get on the band(s) should
be aware of that. It's for their own good. MK

1094. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 05:10:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <bFtre.112$tL5.6323346@news.sisna.com>
Source record: 75209

... what is never GOOD is having another tell one WHAT IS GOOD for
them... if you do that in normal life, expect to get told off as often
as here...

John

<nm5k@wt.net> wrote in message
news:1118724808.848624.275180@z14g2000cwz.googlegroups.com...
> This room is less about antennas than it is about egos, hero worship,
> and the "good ole boys club."
>
> Speak for yourself....I rarely deviate from the topic of
> the NG...On the other hand....That John Smith/Bret dude
> often goes off on weird tangents.......
>
>
> Hang in there OM... if you have measured those swr's and know your
> product, people will give it a go...
>
> SWR has absolutely nothing to do with common mode
> currents..
> Even someone just wanting to get on the band(s) should
> be aware of that. It's for their own good. MK
>

1095. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 06:29:21 UTC
From: nm5k@wt.net
Message-ID: <1118730561.957745.213910@g14g2000cwa.googlegroups.com>
Source record: 75210

what is never GOOD is having another tell one WHAT IS GOOD for
them... if you do that in normal life, expect to get told off as often
as here...

What is good is talking to people that don't
have their heads up their rearend.
All I'm doing is stating fairly simple facts.
If you choose to ignore them, fine with me...
But don't start with your goofball behavior pattern
just because I'm trying to clarify that *no* type of feed on an
elevated vertical is capable of fully decoupling the antenna
on it's own.

I quote from Al's first post....
"One think you may have missed, the original post was about a Arrow
Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub
type like the copper pipe ones. The OSJ does not need a choke, it does
not have a problem with feedline radiation or a problem with Common
Mode Currents. "

That statement is *false* if you want the best performance.
That type of antenna is most certainly able to suffer from
feedline radiation. Sure, it may be better decoupled from
the line using his method vs another, but that does not deal
with spillover currents. There must be a 2nd decoupling device to
deal with those currents. The antenna does include that as
sold.

If you think I really give a hoot about Arrow antennas, or Al,
or whoever, you are sadly mistaken. He would have never
heard from me if he hadn't said that his J pole can't suffer from
common mode problems.
I'm a dumbass compared to many of these people, and even I
know thats a silly statement to make, unless you like holes in your
toes.
Oh...And I can't ever recall ever being "told off" on any post, on
any NG...I don't have the behavior patterns, hyperactivity, etc,
that you seem to exhibit. So I don't attract the attention that people
like you do. The only people that ever get me going are smartasses.
I have run across 4-5 real® smartasses on my journey through the
internet.
They tried to tell me off, but I quickly showed them that that was an
effort in futility. I'm rated a black belt when it comes to
smartasses.
You wanna be #6 on the list? Go ahead...Make my day....

At this point, I don't consider you a full fledged smartass...
You are like a 9 year old that is hyperactive from gorging on
chocolate, that turned out to actually be coated preluden pills...
So I cut you a bit of slack...So far.....Don't push your luck...

You would have never heard from me, except that your post struck
me as overall BS...As usual....
Note...

This room is less about antennas than it is about egos, hero worship,
and the "good ole boys club."

Only people that are defensive, or are trying to cover something up,
or trying to claim some silly nonsense would feel this way.
All people have ego's to varying degrees.
Best to ignore....
I would never worship a man.
I don't belong to any clubs, but I reckon if I did, I would
prefer a bunch of good ole boys, over a bunch of anal
retentive "girly men" who constantly feel victimized
by the world in general...
MK

1096. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 06:36:25 UTC
From: dplatt@radagast.org
Message-ID: <11asun9rb8lrde4@corp.supernews.com>
Source record: 75212

In article <4kesa1l0mmpq7dptre6plru2hmumsrrj17@4ax.com>,
Wes Stewart <n7ws_@*yahoo.com> wrote:

>But he says, "However, since the currents on either side of the
>feedpoint are not balanced, a choke balun is mandatory to suppress
>unwanted currents on the feedline."

Whups, you're right. I though that this particular section of his
text was referring to the standard J-pole, but in re-reading it I see
that it's referring to the nonstandard/open-sleeve version.

>>Cebik's model would need to be modified somewhat apply to the Arrow
>>open-sleeve J-pole, as the Arrow is fed at the very base of the one
>>element rather than halfway between the two.
>
>That's how I modeled it, although it makes very little difference in
>the results.

Since it's only an inch or so, that makes good sense.

>>Anybody care to model up the Arrow, with all three elements included,
>>with and without a separate wire representing the outside of the coax?
>
>Done, before you asked.[g]

That's what the Howard/Fine/Howard team used to call "Super Service!"

:-)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1097. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 07:00:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11at04p2cpfio48@corp.supernews.com>
Source record: 75213

> . . .
> Again, I just think it is wrong to tell someone the antenna won't work
> with out a choke.
>
> 73 Al Lowe N0IMW

I agree entirely. In fact, I think it's wrong to tell someone that an antenna won't "work", regardless of how good or bad it is. The only exception I'd make is if the person has some very well-defined criteria about what constitutes "working" and what doesn't, but very few people do. Most hams want to talk to someone, and most antennas will allow them to do that, with a minimum of fuss, optimizing, or knowledge -- that is, most antennas "work". Once that basic need is met, durability, construction quality, and customer support rightfully become the most important items in choosing a commercial antenna.

Just about any antenna can be made to work better in a technical sense (for example, higher gain in some direction). But a technical improvement that doesn't cause any improvement in operational use isn't an improvement at all. If the repeater you want to talk to is full quieting in both directions, no technical improvement in the antenna will improve your ability to communicate, so there's no point in putting forth the effort. Who cares if your car can go 120 or 140 MPH if you never drive it over 70? [Considering the giant immaculate scratch-free four-wheel drive vehicles overpopulating the suburban roads, I'm afraid that's not a good example.]

On the other hand, if you're trying to operate under marginal conditions, even a small technical improvement in the antenna performance translates to an enhanced ability to communicate. That's where it pays to know something about how antennas work, and where it can be worth the time and trouble to make the improvements. I have to say, though, it's sometimes discouraging when suggestions about how an antenna can be improved are interpreted as saying an antenna "doesn't work" without the improvements. It's awfully hard to penetrate through the binary way of thinking most people seem to be stuck with.

It's really a shame that some manufacturers of good, serviceable, durable antennas feel they have to create some special and magical quality to convince people to buy their products. But I guess that's the reality of the marketplace. Works for cars, works for medicine, must work for antennas too.

Roy Lewallen, W7EL

1098. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 08:01:15 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <u2XxABLL7orCFA87@ifwtech.co.uk>
Source record: 75214

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>
>> Cecil Moore wrote:
>>
>>> Roy Lewallen wrote:
>>>
>>>> It's really a shame -- on those rare instances where you can be
>>>>coaxed into commenting without being compelled to steer the subject
>>>>to your favorite obsession, you really do have a lot to offer. But
>>>>the duty cycle is just too low -- it's not worth it to me. Bye.
>>>
>>> Translation: If you agree with him you are the greatest. If you
>>> disagree with him you are lower than the lowest layer of whale
>>> $hit in the deepest part of the ocean.
>> And there's the problem: whatever somebody actually says, you'll
>>translate it into what it suits you to have them say.
>
>Defending your friend even when he is wrong is admirable but
>why is your translation better than mine?

I didn't offer a "translation" of anybody else's words into something
they didn't say.

And I most certainly would NOT defend Roy Lewallen if he were wrong. He
would hate that... and in the same situation, so would I.

>You (and Roy) absolutely hate anyone who disagrees
>with you and engage in hazing (ad hominem attacks) to try to chase
>such a person away from the newsgroup. Why do you fear the facts?
>You two guys consider yourselves to be such omniscient gurus and
>never admit a mistake except maybe for an occasional typo.

I don't hate you in the slightest, Cecil. I just hate sloppy thinking.

This is not an ego thing. It's all about defending the bedrock of basic
scientific principles and logic. If Roy or I appear rigid and
unyielding, that's because neither of us is prepared to give way if it
means breaking those basic principles.

THE most basic principle of physical science is that every bit of true
knowledge is a piece of a huge jigsaw puzzle that fits together with
everything else that's true. If it doesn't fit in with every other
piece, then it ain't true.

The absolute fascination of science - and science-based engineering - is in understanding *how* they fit... and very occasionally, finding a few new small pieces.

Antennas and transmission lines are bloody difficult, and complex in every sense, so it's sometimes hard to see how the pieces fit. But that makes it MORE important to hold fast to the underlying knowledge that they do fit... if we could but figure out how.

The wrong way is to say: "This big puzzle is too hard, so I'll make up my own little patch over here, and who cares if it doesn't fit?" Well I care! I also care if other people are being led astray by the loudest voice or the most prolific poster.

But that principle is a hard taskmaster. It means that every notion has to be tested to see if it fits. It means being prepared to throw away a dozen pet theories before lunchtime, if they fail to fit into that big jigsaw puzzle. It means that getting it right is vastly more important than "winning" an argument, or being the last man still posting when a thread dies out.

Roy and I agree on a lot of things - so much so, it must often seem like collusion. But it isn't - it's just another result of those basic underlying principles. They are exactly the same in Oxford as in Oregon, so if each of us gets it right independently, then we're inevitably led to the same conclusions.

Anybody can make mistakes; and if that happens, Roy has often said he wants to be corrected. So do I. If he and I don't agree on something, the most important thing to either of us is to understand why. Give either of us a convincing argument - namely an argument that fits in correctly with the rest of scientific knowledge - then we'll gladly agree and be happier for it.

In contrast, I have lots of disagreements with Reg! But they are all about judgement calls, such as the best methods to use, or what other people do or don't need to be told. We approach those topics very differently, and may never agree; but I don't recall ever having fundamentally disagreed with Reg on basic principles, and don't ever expect that to happen.

And finally: yes, I have met Roy Lewallen. When my vacation flight in 2000 passed through Portland, we naturally made it our business to take a look at each other! What you see here is the same guy when you meet him. I am pleased to count him as a friend; but more important than friendship is his uncompromising intellectual honesty about trying to deal only in true facts.

Well, there it is. Cecil, if you still see any of this as an ego thing, or merely "defending a friend"... then you haven't understood a single word.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)

http://www.ifwtech.co.uk/g3sek

1099. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 08:36:44 UTC
From: nm5k@wt.net
Message-ID: <1118738204.459594.36000@o13g2000cwo.googlegroups.com>
Source record: 75215

As an alternative to using a choke on the feedline, what sort of
results might one get with a standard J-pole by using a half-wave
coaxial balun and tapping up a bit further on the elements?

Still don't think that would clean up spillover currents...
If I were to use a J pole, and wanted decoupling, I would
add a 1/4 wave coax section below the feed, and then
have a set of radials at that point. They can be grounded
to the mast, or left free, as long as they are connected to
the shield. The 1/4 wave of coax is physical length, not
electrical. But I've found in testing, it's not all that critical.
Of course, he wouldn't be able to claim "no radials" at that
point, but it would be pretty well decoupled. This is the same
basic design cushcraft used with the ringo ranger. In that case,
the coax length was 50 inches long, to a set of 20 inch radials.
They used the longer length due to the dual 5/8 design.
They actually seem to claim that 50 inches of coax as a 3rd
radiating element, but I don't quite see it that way. If that were
truly the case, it would beat the isopole.
The comparison between the isopole and the ringo ranger 2
show how important decoupling is. They are both appx dual
5/8 designs. No real difference in element length.
The isopoles improved decoupling is what make it the winner
when you compare the two head to head.
A sleeve would also be easy to use with a J pole...
Actually, I sort of prefer the center fed 1/2 wave "sleeve"
dipole vertical, with a 2nd lower decoupling sleeve, over the
usual J pole design. MK

1100. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 09:00:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8m6c8$im0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 75216

Ian, not wishing to be classed amongst the old wives you have very carefully avoided talking about "power radiated from feedlines". You have shifted to using clamp-on ammeters.

But people who DO discuss things in such terms are unable to justify the use of chokes by quantifying the power actually radiated and setting limits on what power level is acceptable or is not acceptable. If they can't measure or calculate the power level then they know nothing about what they are are talking.

Refer to what Lord Kelvin said about measurements.

Can you suggest an acceptable level of amps as measured on a clamp-on ammeter?

Reg, G4FGQ

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message news:lfoj6Kh2SbrCFAu2@ifwtech.co.uk...
> Reg Edwards wrote:
> >
> >They who discuss "power radiated from the feedline", yet are unable to
> >measure (in watts) or calculate (in watts) the MAGNITUDE of the
> >effect, belong to a set of waffling old wives.
> >
>
> Those who take no precautions to prevent their feedline from becoming
> part of the antenna, belong to a set of people who don't even know what
> their antenna IS.
>
> There's a part you call "the antenna", and another part you call "the
> feedline". Wishful thinking will not stop RF current from flowing
> directly from one to the other.
>
> >How is it possible to decide whether or not a choke or balun is
> >needed, and where to locate it, unless the magnitude of what one MIGHT
> >wish to prevent is known.
> >

> Try a clamp-on RF current meter, a little modeling... or even a
little
> common sense.
>
> There's a place called "the feedpoint" where the antenna and the
> feedline are connected directly together. Might that be a good
location
> for a choke to keep them separate? Yes, it almost certainly would.
>
> Chokes may also be needed at other locations, but it's hard to
justify
> anywhere else as your *first* choice. (The exception is the Carolina
> Windom and similar antennas where part of the feedline is intended
to
> radiate. But even there, they put a good choke at the point where
they
> want RF currents on the feedline to stop.)
>
> Queen Elizabeth 1 of England had the good sense to take a bath every
six
> months "whether I need it or not". If you don't know whether your
> feedline smells of RF, then follow her excellent advice and use a
> choke.
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

1101. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 09:51:38 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <0i$3FPTqiqrCFA$W@ifwtech.co.uk>
Source record: 75218

Dave Platt wrote:
>In article <kp6DXWt9UerCFA9$@ifwtech.co.uk>,
>Ian White GM3SEK <g3sek@ifwtech.co.uk> wrote:
>
>>>The version of the "non-standard J-pole" which Cebik models is fed at
>>>bottom center, in a dimensionally-symmetrical way. His current plot
>>>seems to show equal currents at this feedpoint, and this would seem to
>>>make the use of a choke or balun on the feedline somewhat less
>>>significant than with a standard J-pole.
>>
>>An antenna model without a feedline will *force* equal and opposite
>>currents at the feedpoint - it is always fed through the perfect balun!
>
>Cebik's plot of currents in the "standard" J-pole shows unequal
>currents all the way down to the bottom, and he notes this in his text
>and asserts the need for a choke.
>
>He doesn't say whether his models do or do not include a feedline.
>
If they did, the configuration of the feedline would become another
important variable which he couldn't fail to mention. Also the drawings
show no feedline.

>>Add an un-choked feedline to the model (another thick wire, representing
>>the coax shield) at either side of the feedpoint, and see where the
>>current goes now. If you don't use a choke on a real-life antenna,
>>there's nothing to stop the current going wherever it likes.
>
>Agreed. The results are likely to be quite variable depending on the
>feedline distance to the nearest ground. Seems to me that the worst
>case would result from a small integral multiple of 1/2 wavelength, no?
>
That's right. At the point where the coax shield connects to the
antenna, the current will divide three ways, between the antenna, the
inside of the shield, and the outside of the shield. The split will
depend on the ratio of the impedances in each of those three directions.

If the impedance for current flowing down the outside of the shield is
low (which any multiple of 1/2 wavelength grounded at the bottom will
achieve) then away the current will go - there's nothing to stop it.

A feedline choke creates a high impedance against current flow down the
outside, so the current from the inside of the shield flows almost
exclusively into the antenna.

Even if you choke a J-pole at the feedpoint, there will also be induced currents further down the feedline because the antenna and the feedline are usually installed in a straight line. But that doesn't override the need to choke the feedline at the most obvious place.

>My guess is that in most simple J-pole installations, the feedline
>radiation and the resulting disturbance of the antenna's omni pattern
>are probably not going to be worth worrying about too much. Nearby
>buildings, trees, etc. are likely to result in larger differences
>in the far-field pattern than any quirks in the antenna's own pattern.
>
Most people using J-poles won't worry, that is true... but that's mostly because J-poles are used in relatively undemanding applications where you either hit the repeater or packet node, or you don't.

In defence of Al, if the J-pole is mounted directly on a car roof, then there's no point in attempting to choke the feedpoint. But if it's mounted on a mast, the mast and feedline will radiate. How much will depend on the exact installation, and is pretty well unknown unless you can measure the actual RF currents.

>As an alternative to using a choke on the feedline, what sort of
>results might one get with a standard J-pole by using a half-wave
>coaxial balun and tapping up a bit further on the elements?
>
That is a workable feed method, but the half-wave balun is a voltage balun. The antenna is asymmetrical, so the balun is acting as center-tapped voltage source which is trying to push equal currents into the unequal impedances on either side of the feedpoint. That will never quite succeed, so there will always be some out-of-balance current left over.

Like all voltage baluns, the half-wave coax type doesn't do anything directly to *prevent* the out-of-balance current from flowing away on the outside of the feedline. On the contrary, there is a hard-wired connection that will *allow* such currents to flow.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1102. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 09:56:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ataetlnceg3d3@corp.supernews.com>
Source record: 75217

Reg Edwards wrote:
> Ian, not wishing to be classed amongst the old wives you have very
> carefully avoided talking about "power radiated from feedlines". You
> have shifted to using clamp-on ammeters.
>
> But people who DO discuss things in such terms are unable to justify
> the use of chokes by quantifying the power actually radiated and
> setting limits on what power level is acceptable or is not acceptable.
> If they can't measure or calculate the power level then they know
> nothing about what they are are talking.

That's not really quite true. Can you or anyone else tell how many watts is radiated from each element of a Yagi? How? Then how do you know which elements are important an which are not?

Roy Lewallen, W7EL

1103. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 10:19:10 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <OjSpVcVe8qrCFA5t@ifwtech.co.uk>
Source record: 75219

Reg Edwards wrote:
>
>Ian, not wishing to be classed amongst the old wives you have very
>carefully avoided talking about "power radiated from feedlines". You
>have shifted to using clamp-on ammeters.
>
>But people who DO discuss things in such terms are unable to justify
>the use of chokes by quantifying the power actually radiated and
>setting limits on what power level is acceptable or is not acceptable.
>If they can't measure or calculate the power level then they know
>nothing about what they are are talking.
>
>Refer to what Lord Kelvin said about measurements.
>
>Can you suggest an acceptable level of amps as measured on a clamp-on
>ammeter?

No. Reg knows perfectly well that the RF current is only one part of a
much bigger picture.

An acceptable level is one that:

1. Does NOT make the microphone bite your lips (or does not leave
lasting scars :-)

2. Does NOT cause your transmitter to act up because there's too much RF
current flowing through your station, trying to find "ground"

3. Does NOT cause RFI to your family and neighbours

4. Does NOT cause unpredictable changes in transmitter loading

5. Does NOT lead to unacceptable pickup of interference when you're
trying to receive.

So that "acceptable level" depends entirely on each individual's
particular station layout, how they operate, where they live, what kinds
of consumer electronics the family and neighbours use, how they are
installed... and how much that individual ham cares about getting along
with the family and the neighbours.

Every case is totally individual. That is why every individual needs to
do his own thinking and make his own decisions.

The only "old wives' tale" is that somebody else can do it for you, or
tell you from 5000 miles away what does or doesn't matter.

You don't actually need to measure amps in order to make those decisions. Basically it's all about simple practical things like the list above.

Where the RF current meter really helps is if you decide you do have an RFI problem. Then it lets you *see* how well you're managing to fix it. Too much of RFI investigation work is like groping in the dark. The RF current meter is like taking a blindfold off.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1104. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 13:02:00 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <k9lta198c7fa4mm1t3s2d7ecdbat425u52@4ax.com>
Source record: 75220

On 13 Jun 2005 23:29:21 -0700, nm5k@wt.net wrote:

> what is never GOOD is having another tell one WHAT IS GOOD for
>them... if you do that in normal life, expect to get told off as often
>as here...
>
>What is good is talking to people that don't
>have their heads up their rearend.
>All I'm doing is stating fairly simple facts.
>If you choose to ignore them, fine with me...
>But don't start with your goofball behavior pattern
>just because I'm trying to clarify that *no* type of feed on an
>elevated vertical is capable of fully decoupling the antenna
>on it's own.
>
>
>I quote from Al's first post....
>"One think you may have missed, the original post was about a Arrow
>Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub
>type like the copper pipe ones. The OSJ does not need a choke, it does
>not have a problem with feedline radiation or a problem with Common
>Mode Currents. "
>
>That statement is *false* if you want the best performance.
>That type of antenna is most certainly able to suffer from
>feedline radiation. Sure, it may be better decoupled from
>the line using his method vs another, but that does not deal
>with spillover currents. There must be a 2nd decoupling device to
>deal with those currents. The antenna does include that as
>sold.
>
>If you think I really give a hoot about Arrow antennas, or Al,
>or whoever, you are sadly mistaken. He would have never
>heard from me if he hadn't said that his J pole can't suffer from
>common mode problems.
>I'm a dumbass compared to many of these people, and even I
>know thats a silly statement to make, unless you like holes in your
>toes.
>Oh...And I can't ever recall ever being "told off" on any post, on
>any NG...I don't have the behavior patterns, hyperactivity, etc,
>that you seem to exhibit. So I don't attract the attention that people
>like you do. The only people that ever get me going are smartasses.
>I have run across 4-5 realï¿½ smartasses on my journey through the
>internet.

>They tried to tell me off, but I quickly showed them that that was an
>effort in futility. I'm rated a black belt when it comes to
>smartasses.
>You wanna be #6 on the list? Go ahead...Make my day....
>At this point, I don't consider you a full fledged smartass...
>You are like a 9 year old that is hyperactive from gorging on
>chocolate, that turned out to actually be coated preluden pills...
>So I cut you a bit of slack...So far.....Don't push your luck...
>
>You would have never heard from me, except that your post struck
>me as overall BS...As usual....
>Note...
>
>This room is less about antennas than it is about egos, hero worship,
>and the "good ole boys club."
>
>Only people that are defensive, or are trying to cover something up,
>or trying to claim some silly nonsense would feel this way.
>All people have ego's to varying degrees.
>Best to ignore....
>I would never worship a man.
>I don't belong to any clubs, but I reckon if I did, I would
>prefer a bunch of good ole boys, over a bunch of anal
>retentive "girly men" who constantly feel victimized
>by the world in general...
>MK

Well said.

1105. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 13:42:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aedfaa$1_1@spool9-west.superfeed.net>
Source record: 75221

Tom Donaly wrote:
> Vintage Moore.

Yep, focusing on technical errors.

Vintage Donaly: Ignoring technical errors
and focusing on personalities.
--
73, Cecil http://www.qsl.net/w5dxp

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1106. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 13:52:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aee1f7$1_1@spool9-west.superfeed.net>
Source record: 75222

Adelphia wrote:
> Regardless, the law simply says that he is not guilty of the charges AS
> PRESENTED. Innocence is a nice thought but not factual.

It is a legal fact that he is legally innocent until
proven legally guilty. I am legally innocent of not
wearing a seat belt yesterday (I didn't get caught).
--
73, Cecil http://www.qsl.net/w5dxp

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1107. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 13:55:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aee2c8$1_1@spool9-west.superfeed.net>
Source record: 75223

Hal Rosser wrote:
> So movement IS real, but time is not real.

In Barbour's book, "The End of Time", both time and
movement are illusions. Change is real.
--
73, Cecil http://www.qsl.net/w5dxp

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1108. antenna voltage - between what two points?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 14:02:54 UTC
From: Don Gillies <gilliesd@bigpond.net.au>
Message-ID: <isBre.16703$F7.14708@news-server.bigpond.net.au>
Source record: 75224

In all the antenna books I have read there are copious diagrams of voltage distributions along the various types of antenna, but as far as I can see, none of them has explained where the two points are that the voltage is being measured between. Can anyone enlighten me on this please?

DG

1109. Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 14:33:25 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <veqta1dll54ver8ss8umjskvhb5m04p1sm@4ax.com>
Source record: 74975

In a response to a CB antenna question on the rec.outdoors.rv-travel
someone posted a link to

http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm

Talk about snake oil salesmen.

1110. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 14:48:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8mqn2jhl1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74977

> That's not really quite true. Can you or anyone else tell how many
watts
> is radiated from each element of a Yagi? How? Then how do you know
which > elements are important an which are not?
>
> Roy Lewallen, W7EL

==========

Neither you, I or anybody else knows. But, as usual, you have put
your finger on the source of the trouble. It's a descriptive language
problem.

To speak in terms which most people understand, when Cecil acquired
his burn the injury was just as likely to come from the antenna as it
was from the feedline.
Actually, it came from the PA via the tuner.

It is not entirely unrelated to the confusion about standing waves
caused by referring to the so-called SWR meter as an SWR meter, when
it doesn't do anything of the sort and, in any case, there is no line
in a position on which SWR can be measured.

Reg, G4FGQ

1111. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 14:48:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8mqn3jhl2@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74976

Ian said -
> In contrast, I have lots of disagreements with Reg! But they are all
> about judgement calls, such as the best methods to use, or what
other
> people do or don't need to be told. We approach those topics very
> differently, and may never agree; but I don't recall ever having
> fundamentally disagreed with Reg on basic principles,
==========

That's because we are always right. And are both peace-loving
Englishmen.
Thank you for allowing us to make use of your USA arena/battlefield.

Reg, G4FGQ

1112. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 15:13:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aef51c$1_2@spool9-west.superfeed.net>
Source record: 74978

Ian White GM3SEK wrote:
> And I most certainly would NOT defend Roy Lewallen if he were wrong. He
> would hate that... and in the same situation, so would I.

I apologize for exaggerating yesterday's situation through
hyperbole, a character flaw in my tongue-in-cheek dark humor.
"Shirley, you jest" is a hint.

> Well, there it is. Cecil, if you still see any of this as an ego thing,
> or merely "defending a friend"... then you haven't understood a single
> word.

And here's your chance to back up those elegant words.
Here's a repeat of Roy's example:

100v
source--x----1/2WL 50 ohm feedline----+--200 ohm load
50 ohm

A 50 ohm SWR meter measures 4:1 at point 'x'. Roy says:
"But there's a Z0 match at the source in my example."
What do you say?
--
73, Cecil http://www.qsl.net/w5dxp

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1113. Re: antenna voltage - between what two points?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 15:18:51 UTC
From: richardharrison@webtv.net
Message-ID: <18511-42AEF55B-28@storefull-3252.bay.webtv.net>
Source record: 74979

Don Gillies wrote:
"---none of these has explained where the two points are that the voltage is being measured between."

Kraus calls the potentials near and far from antennas "retarded potentials", involving t-r/c, where t is time, r is distance from the origin, and c is the speed of light in free space.

On the conductor itself, the origin would seem logical as a reference point for antenna voltage. Antennas are often considered as extensions of the feedline,

Feedpoint rms voltage is simply the potential between the wires at that point. Instantaneous volts depend on phase along the antenna, impedance, reflection, mutual coupling, radiation, and loss.

Best regards, Richard Harrison, KB5WZI

1114. Solarcon A-99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 15:24:16 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835 42AF04B063@zetnet.co.uk>
Source record: 74982

Hi Guys, Just been to the web site for the info on the Solarcon A-99.

What I now need to know is how to remove the internals intact. Question is; how is the wire at the radiating end terminated in the metal housing, is it soldered in or machined in? at the centre or the side? Obviously the short length of coax is soldered in at the PL239 end. All the joints in the first section are loose now, so I just need to remove the internals to see what's happening. I don't have continuity here but surely I should, even if shunt fed!! I don't want to pull too hard in case I end up damaging the coils Etc. I just fancy playing on 10 or 15/P if it tunes up decent enough and the bands open. Any Idea's. Cheers and TIA Dave

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

1115. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 15:31:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42aef957$1_2@spool9-west.superfeed.net>
Source record: 74980

Ian White GM3SEK wrote:
> Where the RF current meter really helps is if you decide you do have an
> RFI problem. Then it lets you *see* how well you're managing to fix it.
> Too much of RFI investigation work is like groping in the dark. The RF
> current meter is like taking a blindfold off.

And the "RF current meter" doesn't have to be expensive or
complicated. A before/after relative current value may be
all one needs. I use a toroid with ten turns feeding a
1N34A curcuit and a DC voltmeter with very short leads. It
was "calibrated" using forward current into a 50 ohm load.

Simple measurements like this are covered in, "Baluns,
What They Do And How They Do It", by Roy, W7EL, in the
ARRL Antenna Compendium, Vol 1, article available at:

http://www.eznec.com/Amateur/Articles/
--
73, Cecil http://www.qsl.net/w5dxp

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1116. Re: antenna voltage - between what two points?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 16:04:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af0117$1_1@spool9-west.superfeed.net>
Source record: 74981

Don Gillies wrote:
> In all the antenna books I have read there are copious diagrams of voltage
> distributions along the various types of antenna, but as far as I can see,
> none of them has explained where the two points are that the voltage is
> being measured between. Can anyone enlighten me on this please?

:-) You need a virtual ground to obtain those voltages. Actually,
they are deduced to exist because P=ExH and we can measure the
antenna current associated with a certain power level. Some purists
say that if a voltage cannot be measured, it doesn't exist. Some
detectives deduce its existence based on the laws of physics.
--
73, Cecil http://www.qsl.net/w5dxp

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1117. Re: Comet CHA250b - Any Comments Yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 16:29:49 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11au1dmj0lutgc3@corp.supernews.com>
Source record: 74983

Dear Dave also in MI:
The bracket (at the bottom of the antenna) appears to include three
attachments to the antenna. The picture seems to indicate that the highest
attachment is insulated from the antenna proper.
If you know, are either of the other two attachments insulated?

It is difficult to believe that a passive antenna with no moving parts
is able to present an impedance of about 50 ohms over three octaves without
using resistance to swamp the reactance.

It will be interesting to learn what is inside.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Dave" <dave@somehere.net> wrote in message
news:uajra1ljchraov8fuqukvimdl46jrsvvil@4ax.com...
> I was just wondering if anyone had any comments on Comets new
> vertical, the CHA250B that was reviewed in this months CQ.
>
> A reprint of the review can be found at:
>
> http://www.benelec.com.au/pdf/Comet-CHA250B-Review.pdf
>
> Seems a little pricey at over $430 (AES) but then again, a good
> screwdriver costs almost that much.
>
> I wonder what kind of "Matching Network" it uses that it can be so
> broadbanded?
>
> Dave - WK8F

1118. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 16:38:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <4KDre.139$if7.12428312@news.sisna.com>
Source record: 74984

... actually, those commas are used correctly...

"respect for and" <<== can be removed from sentence, leaving:

"as I said, I fear men with no <removed here> devotion to following the constitution as much as the criminals themselves--perhaps even more..."

.. which is a sentence able to stand by itself, I was a math/science degree and even I took enough english to be able to command the language that well, I pity the man/men who lacks even that much ability--certainly would hope he was NOT an english major!

Funny how some men try to gain respect through character assassinations and finding fault with others and/or their methods--and then become angry when corrected, poked fun at, ignored, and disrespected--then become even angrier when kind men attempt to point out how they are being viewed in "the real word", the world outside of their "personal experience" where they sit and view themselves as "LEGENDS IN THEIR OWN MINDS!"

You just gotta keep a sense of humor here! <grin>

Warmest regards,
John

"Bill Turner" <noway@nohow.com> wrote in message news:efcta11jtihp7hapgal26u82c2uo2vhqdl@4ax.com...
> On Mon, 13 Jun 2005 19:56:57 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>... as I said, I fear men with no, respect for and, devotion to
>>following the constitution as much as the criminals
>>themselves--perhaps
>>even more...
>
> ____
>
> I fear men who have no idea how to use, commas.
>
> --
> BT
>

1119. Re: Solarcon A-99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 16:45:09 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <cfKdnVD3EdwDlDLfRVn-pw@comcast.com>
Source record: 74985

"Dave Piggin" <d.piggin@zetnet.co.uk> wrote in message
news:313030303837383542AF04B063@zetnet.co.uk...
> Hi Guys, Just been to the web site for the info on the Solarcon A-99.
>
> What I now need to know is how to remove the internals intact. Question
> is; how is the wire at the radiating end terminated in the metal
> housing, is it soldered in or machined in? at the centre or the side?
> Obviously the short length of coax is soldered in at the PL239 end. All
> the joints in the first section are loose now, so I just need to remove
> the internals to see what's happening. I don't have continuity here but
> surely I should, even if shunt fed!! I don't want to pull too hard in
> case I end up damaging the coils Etc. I just fancy playing on 10 or 15/P
> if it tunes up decent enough and the bands open. Any Idea's. Cheers and
> TIA Dave
>
Dave -

The "EXPOSED" web site has that photo

A few years ago KG6AOH wrote 2 articles on the disassembly "EXPOSED"
of the IMAX 2000 and Solarcon Antron 99 antennas. I do not believe that he
currently has a website with this information.

Solarcon Antron 99 EXPOSED (Adobe Acrobat document) -
useful for education in how antenna is constructed and possible repairs - if
required
http://www.kb8ygc.com/a99.pdf

Solarcon Products
Tencom, LTD
7134 Railroad Street
Holland, OH 43528
1-800-445-3991
USA

w9gb

1120. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 16:54:50 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <xZDre.143$vz.12601482@news.sisna.com>
Source record: 74986

... however, I should point out... I write in a very relaxed style here in the newsgroup, my works will not be published, I will not be graded on them, and my ego will fit in an aspirin bottle... I do this for fun and recreation, why would I make a chore of it?

... MUCH DIFFERENT than those who write here thinking men are hanging on their every word and, think their words are studied and enjoyed immensely by devoted readers, and egos so delicate as to have been made from thin glass and shatter at the slightest "rough handling"--leaving them as temper tantrum throwing children striking out at anything or anyone in reach in an attempt to soothe heal those broken fragments back!

One thing which does exist here: men as transparent as the thinnest negligee on the curviest redhead--quite revealing in nature and able to be read in the dimmest of light.

Warmest regards,
John

"John Smith" <assemblywizard@gmail.com> wrote in message news:4KDre.139$if7.12428312@news.sisna.com...
> ... actually, those commas are used correctly...
>
> "respect for and" <<== can be removed from sentence, leaving:
>
> "as I said, I fear men with no <removed here> devotion to following
> the constitution as much as the criminals themselves--perhaps even
> more..."
>
> .. which is a sentence able to stand by itself, I was a math/science
> degree and even I took enough english to be able to command the
> language that well, I pity the man/men who lacks even that much
> ability--certainly would hope he was NOT an english major!
>
> Funny how some men try to gain respect through character
> assassinations and finding fault with others and/or their methods--and
> then become angry when corrected, poked fun at, ignored, and
> disrespected--then become even angrier when kind men attempt to point
> out how they are being viewed in "the real word", the world outside of
> their "personal experience" where they sit and view themselves as
> "LEGENDS IN THEIR OWN MINDS!"
>
> You just gotta keep a sense of humor here! <grin>
>

> Warmest regards,
> John
>
>
>
> "Bill Turner" <noway@nohow.com> wrote in message
> news:efcta11jtihp7hapgal26u82c2uo2vhqdl@4ax.com...
>> On Mon, 13 Jun 2005 19:56:57 -0700, "John Smith"
>> <assemblywizard@gmail.com> wrote:
>>
>>>... as I said, I fear men with no, respect for and, devotion to
>>>following the constitution as much as the criminals
>>>themselves--perhaps
>>>even more...
>>
>> --
>>
>> I fear men who have no idea how to use, commas.
>>
>> --
>> BT
>>
>
>

1121. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:12:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <jeEre.144$ll1.12719209@news.sisna.com>
Source record: 75012

... my gawd, you go into far too much verbiage for far too simple of explanation(s) of your personal, views, beliefs and offerings... I do choose to ignore them and toss 'me into "what nm5k likes" bucket--which frankly, "charlotte--I don't give a damn."

... if the only time you hear these complaints are from me, no need to worry, if others point out your nature is less than desirable (and new members--not the good ole boys here who are into the "mutual admiration societies", "legends of their own mind(s) clubs) then you may want to use it to your advantage--or not...

John

<nm5k@wt.net> wrote in message
news:1118730561.957745.213910@g14g2000cwa.googlegroups.com...
what is never GOOD is having another tell one WHAT IS GOOD for them... if you do that in normal life, expect to get told off as often as here...

What is good is talking to people that don't
have their heads up their rearend.
All I'm doing is stating fairly simple facts.
If you choose to ignore them, fine with me...
But don't start with your goofball behavior pattern
just because I'm trying to clarify that *no* type of feed on an
elevated vertical is capable of fully decoupling the antenna
on it's own.

I quote from Al's first post....
"One think you may have missed, the original post was about a Arrow Antenna J-Pole. This is an Open Stub type J-Pole, Not a Closed Stub type like the copper pipe ones. The OSJ does not need a choke, it does not have a problem with feedline radiation or a problem with Common Mode Currents. "

That statement is *false* if you want the best performance.
That type of antenna is most certainly able to suffer from
feedline radiation. Sure, it may be better decoupled from
the line using his method vs another, but that does not deal
with spillover currents. There must be a 2nd decoupling device to
deal with those currents. The antenna does include that as
sold.

If you think I really give a hoot about Arrow antennas, or Al,
or whoever, you are sadly mistaken. He would have never
heard from me if he hadn't said that his J pole can't suffer from

common mode problems.
I'm a dumbass compared to many of these people, and even I
know thats a silly statement to make, unless you like holes in your
toes.
Oh...And I can't ever recall ever being "told off" on any post, on
any NG...I don't have the behavior patterns, hyperactivity, etc,
that you seem to exhibit. So I don't attract the attention that people
like you do. The only people that ever get me going are smartasses.
I have run across 4-5 real smartasses on my journey through the
internet.
They tried to tell me off, but I quickly showed them that that was an
effort in futility. I'm rated a black belt when it comes to
smartasses.
You wanna be #6 on the list? Go ahead...Make my day....
At this point, I don't consider you a full fledged smartass...
You are like a 9 year old that is hyperactive from gorging on
chocolate, that turned out to actually be coated preluden pills...
So I cut you a bit of slack...So far.....Don't push your luck...

You would have never heard from me, except that your post struck
me as overall BS...As usual....
Note...

This room is less about antennas than it is about egos, hero worship,
and the "good ole boys club."

Only people that are defensive, or are trying to cover something up,
or trying to claim some silly nonsense would feel this way.
All people have ego's to varying degrees.
Best to ignore....
I would never worship a man.
I don't belong to any clubs, but I reckon if I did, I would
prefer a bunch of good ole boys, over a bunch of anal
retentive "girly men" who constantly feel victimized
by the world in general...
MK

1122. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:13:01 UTC
From: Buck <iam@this.site>
Message-ID: <h6vta11kkn6rkchpc9hivkr2hl78l7rdja@4ax.com>
Source record: 74987

On Wed, 08 Jun 2005 14:16:06 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>On Wed, 08 Jun 2005 12:23:50 -0700, Wes Stewart <n7ws_@*yahoo.com>
>wrote:
>[snip}
>
>>Under "Qualifier" scroll the dropdown menu to either "Generic 450 ohm
>>window" or if you more more realistic numbers you can select one of
>>the Wireman Ladder line types. (Ignore "wet" ones.)
>
>This should of course read, "...if you want more realistic..."
>

I am not sure what I just did or saw. I had several colored graphs charted and one gray. The gray didn't seem to move around, but the colored ones sure did. I am afraid I didn't see what you were trying to show me. I believe the colors were the different feed lines, capacitors, etc used in the feedline shown. I tried removing them and only leaving the feedline I chose to use. I don't know if I did something wrong or not, but the gray line appeared to be the antenna and it never appeared to move. The feedline markers moved radically.

I haven't thought a lot about the losses in ladder-type feedline, but I do understand how the losses in coax can reduce High SWR by reducing both the outgoing and incoming reflected signals in the coax. This may make the antenna desirable to the rig, but it doesn't do any good for the operator who is trying to reach or copy that weak signal. It may well be that the Twin-lead has the same effect. I often read that one of the advantages of the twin-lead is that it can handle higher SWR without the higher losses of coax.

I seem to have been seeing a lot about the technology of the twin-lead tuning technology, but then I can't be sure it wasn't from the same people here on this forum. I'll continue to look into it to see what I might learn.

I was able to get past whatever block I had on learning to use EZNEC, so at least some good came from this discussion. Hopefully, I'll learn more and can model this antenna and others I read about.

Thanks very much for taking the time to address this with me.

73,
Buck
N4PGW

--
73 for now
Buck
N4PGW

1123. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:16:23 UTC
From: Buck <iam@this.site>
Message-ID: <a34ua19ucgji68vb97hj3n6pv9m5grs931@4ax.com>
Source record: 74989

On Thu, 09 Jun 2005 06:23:44 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> The G5RV is a twenty meter antenna, isn't it? It needs a tuner on all
>> other bands if I am not mistaken.
>
>The G5RV needs a tuner on all bands. Acceptable SWRs are
>very rare without a tuner. The G5RV is 1.5WL long on
>20m. The resonant feedpoint impedance on 20m is in excess
>of 100 ohms giving a 50 ohm SWR in excess of 2:1 so a
>tuner is required, even on 20m. However, I have done to
>a G5RV what Fred has done to a 1/2WL 80m dipole. The
>matching section on my G5RV is a variable length between
>22' and 38'. My G5RV has an SWR below 1.5:1 on all eight
>HF bands. I'm going to write it up one of these days.

This is interesting. I remember reading where the G5RV originated as
a gain dipole for 20 meters. I hadn't looked at it as a 1.5wl dipole.
I have always used 1.5wl dipoles for 15 (40 meters) and had low SWR on
the 15 meter band without a matching network. Am i missing something
or is the coax stealing enough power to reduce the SWR?

--
73 for now
Buck
N4PGW

1124. Re: antenna voltage - between what two points?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:17:26 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1118769446.302963.126250@g44g2000cwa.googlegroups.com>
Source record: 74988

Don Gillies wrote:
> In all the antenna books I have read there are copious diagrams of voltage
> distributions along the various types of antenna, but as far as I can see,
> none of them has explained where the two points are that the voltage is
> being measured between. Can anyone enlighten me on this please?
>
> DG

I'm curious what antenna books those might be. I've seen plenty of books that show current distributions on conductors in an antenna, and plenty that show electric and magnetic field strengths, but darned few that show "voltage distributions along..." antennas.

It makes plenty of sense to talk about electric field strengths, and if you know them, you can calculate the potential between any two points you wish _when_measured_along_a_particular_path_. But the potential ("voltage") between two points in general depends on the path along which you measure it. In particular, if you're in the presence of a time-varying magnetic field (which would be the case around an antenna), the potential depends strongly on the path you take.

Cheers,
Tom

1125. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:19:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1293$1_2@spool9-west.superfeed.net>
Source record: 74990

Bill Turner wrote:
> If you know of an actual law which states the above, please quote it.

I don't know of any actual USA law that states a citizen is
presumed guilty until proven innocent.

Legally, innocence must be presumed until guilt is proven
in order to avoid violation of due process and civil rights.
If the verdict is "not guilty" the presumption of innocence
legally continues (at least until the civil trial).
--
73, Cecil http://www.qsl.net/w5dxp

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1126. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:20:12 UTC
From: Buck <iam@this.site>
Message-ID: <1d4ua1pvbuj32il3di34qvmv541rdi7t41@4ax.com>
Source record: 74991

On Thu, 09 Jun 2005 08:52:39 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>I showed you in detail how to answer your own questions. Did you not
>read my post?

I read it and did it. It just took time for me to do so. I posted a
reply to it today.

Thanks

--
73 for now
Buck
N4PGW

1127. Re: Comet CHA250b - Any Comments Yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:24:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af13cb$1_2@spool9-west.superfeed.net>
Source record: 74992

J. Mc Laughlin wrote:
> It is difficult to believe that a passive antenna with no moving parts
> is able to present an impedance of about 50 ohms over three octaves without
> using resistance to swamp the reactance.
>
> It will be interesting to learn what is inside.

I can come close with a ladder-line length selector but
I can't hide it inside.
--
73, Cecil http://www.qsl.net/w5dxp

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1128. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:25:09 UTC
From: Buck <iam@this.site>
Message-ID: <ck4ua1l61cldre7pbub520kuqt7r4o2d4e@4ax.com>
Source record: 74993

On Thu, 9 Jun 2005 00:27:26 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>No buck, the line is always longer than 1/2 wave. It is a matching section
>from what is at the antenna to 50 ohms, and then 1/2 wave from that point.
>
>"Buck" <iam@this.site> wrote in message
>news:k58ea11bjn63qoqhfavn2slms81vku7tvq@4ax.com...
>> Pardon me while I learn from this discussion.
>>
>> The 450 ohm antenna is designed to be tuned by using exactly 1/2
>> electrical wave lengths to match both the transmitter and antenna.
>> This should mean that any differing feedline should work equally as
>> well (except for the losses) if I am correct....
<<<SNIP>>>

On Wed, 08 Jun 2005 20:41:58 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> Pardon me while I learn from this discussion.
>>
>> The 450 ohm antenna is designed to be tuned by using exactly 1/2
>> electrical wave lengths to match both the transmitter and antenna.
>> This should mean that any differing feedline should work equally as
>> well (except for the losses) if I am correct....
>
>What you are missing is that first piece of matching section
>which can be any length less than 1/2WL. After that first
>piece of matching section, you could indeed switch to a
>different characteristic impedance. Congratulations, you
>have just invented the G5RV. :-)

Fred, I believe that you and Cecil are 180 degrees out of phase. Did
someone make a type-O?

--
73 for now
Buck
N4PGW

1129. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:27:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1472$1_2@spool9-west.superfeed.net>
Source record: 74994

John Smith wrote:
> ... my ego will fit in an aspirin bottle...

Is that one of the aspirin bottles from Sam's? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1130. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:30:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1538$1_1@spool9-west.superfeed.net>
Source record: 74995

Buck wrote:
> I seem to have been seeing a lot about the technology of the twin-lead
> tuning technology, but then I can't be sure it wasn't from the same
> people here on this forum. I'll continue to look into it to see what
> I might learn.

The "twin-lead tuning technology" is based on the laws of
physics, not the approval of the gurus on this newsgroup.
--
73, Cecil http://www.qsl.net/w5dxp

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1131. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:33:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <RxEre.147$P12.12813373@news.sisna.com>
Source record: 75001

Cecil:

Cecil, really, I know you have a worthwhile humor... and it is
appreciated... <grin>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42af1472$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> ... my ego will fit in an aspirin bottle...
>
> Is that one of the aspirin bottles from Sam's? :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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1132. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:33:44 UTC
From: Buck <iam@this.site>
Message-ID: <dt4ua1dvja2u8ttptekfss9flsanlg4pat@4ax.com>
Source record: 74996

On Thu, 09 Jun 2005 11:38:22 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> I am a little confused, so bare with me.....
>>
>> I put up an antenna with 50 ohm of impedance. I feed it with any
>> length of 300 ohm feed less than 1/2 L. Then I run 1/2 L of 50 ohm
>> feed to the radio and I have the 50 ohm match?
>
>Nope, 50 ohms is only one of an infinite number of impedances
>you might encounter. For 50 ohms, you feed it with 1/2WL of
>300 ohm feedline. This is similar to (but not exactly like)
>a G5RV used on 20m.
>
>> I put up a 300 ohm antenna. I feed it with 300 ohm twin lead for less
>> than 1/2 L and 1/2 L of 50 ohm feedline. Is this a 50 ohm match?
>
>Nope, you cannot transform the impedance of a 300 ohm antenna
>using 300 ohm feedline. You need reflections to cause an
>impedance transformation. A 300 ohm antenna impedance is
>not within the green doughnut area below.
>
>The range of impedances that can be matched with a length of
>450 ohm ladder-line are represented by the green doughnut at:
>
>http://www.qsl.net/w5dxp/smith.htm
>
>The impedances outside the green area cannot be matched by
>only one 450 ohm matching section. The area in the doughnut
>hole cannot be matched by only one 450 ohm matching section.

I tried it again and got the picture. It appears that the 450 ohm
twin lead sections can match any impedance between 20 and 100 ohms
given the proper length.

--
73 for now
Buck
N4PGW

1133. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:35:56 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3AEre.148$Yn1.12734615@news.sisna.com>
Source record: 75000

Cecil:

Unfortunately, in the civil trial it only becomes a question of, "Does the "child molester" win, or the "extortionists/con-artists"", neither a desirable choice... <frown>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42af1293$1_2@spool9-west.superfeed.net...
> Bill Turner wrote:
>> If you know of an actual law which states the above, please quote it.
>
> I don't know of any actual USA law that states a citizen is
> presumed guilty until proven innocent.
>
> *Legally*, innocence must be presumed until guilt is proven
> in order to avoid violation of due process and civil rights.
> If the verdict is "not guilty" the presumption of innocence
> legally continues (at least until the civil trial).
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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1134. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:38:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1708$1_2@spool9-west.superfeed.net>
Source record: 74997

Buck wrote:
> This is interesting. I remember reading where the G5RV originated as
> a gain dipole for 20 meters. I hadn't looked at it as a 1.5wl dipole.
> I have always used 1.5wl dipoles for 15 (40 meters) and had low SWR on
> the 15 meter band without a matching network. Am i missing something
> or is the coax stealing enough power to reduce the SWR?

Bingo! Your 15m SWR at the 40m dipole feedpoint is probably
above 2:1. Feedline losses both ways probably reduce it to
a value tolerated by your transmitter. If you replace the
coax with an integer multiple of 15m halfwavelengths of
ladder-line to reduce losses, your transmitter may object.

I have inadvertently stepped upon an unpublished article with
my posting. I apologize and will bow out.
--
73, Cecil http://www.qsl.net/w5dxp

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1135. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:41:57 UTC
From: KAZeringue <kazeringue@aol.com>
Message-ID: <FFEre.6618$1u3.569513@twister.southeast.rr.com>
Source record: 75004

What happens....

Relative to which frame of reference, and does it matter to
Schrodinger's cat?

:)

W4KAZ

1136. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:42:19 UTC
From: Buck <iam@this.site>
Message-ID: <4e5ua1hul509ffgnha4l4rh22r9ru0ujck@4ax.com>
Source record: 74998

On Thu, 9 Jun 2005 16:30:18 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Given an antenna that has 50 Ohms +J0, feed it with 50 ohm line and the swr
>for the system is 1:1, substitute a 1/2 wave of 450 ohm line and the antenna
>and the rig are both at 50 ohms. The SWR on the feedline is 450/50 or 9:1.

Ok, just to reiterate so I know I understand (and you can see if I
don't), If I feed a 20 meter dipole cut for my favorite frequency, I
can feed the radio with exactly 1/2 wave of 450 ohm feedline and it
will match the radio? Of course, coax will make a better match (with
less loss?)

Now, if I understand, the principle of the 130 foot dipole matching
the rig is based on the length of 450 ohm twin-lead. The twin lead is
always 1/2 WL long. The coax and rig are 50 ohms, but according to
the smith chart, the impedance of the various frequencies range from
20 to 100 ohms. This would make me wonder why I don't get the same
impedances at my rig, or at least at my feed point of 50 ohm coax.

Thanks

--
73 for now
Buck
N4PGW

1137. Re: antenna voltage - between what two points?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:45:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1895$1_1@spool9-west.superfeed.net>
Source record: 74999

K7ITM wrote:
> I'm curious what antenna books those might be. I've seen plenty of
> books that show current distributions on conductors in an antenna, and
> plenty that show electric and magnetic field strengths, but darned few
> that show "voltage distributions along..." antennas.

ARRL Antenna Book, 15th edition, Fig. 1, page 2-2.
--
73, Cecil http://www.qsl.net/w5dxp

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1138. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:55:40 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <PUCZYIkcoxrCFAK5@ifwtech.co.uk>
Source record: 75003

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> Where the RF current meter really helps is if you decide you do have
>>an RFI problem. Then it lets you *see* how well you're managing to
>>fix it. Too much of RFI investigation work is like groping in the
>>dark. The RF current meter is like taking a blindfold off.
>
>And the "RF current meter" doesn't have to be expensive or
>complicated. A before/after relative current value may be
>all one needs. I use a toroid with ten turns feeding a
>1N34A curcuit and a DC voltmeter with very short leads. It
>was "calibrated" using forward current into a 50 ohm load.
>
>Simple measurements like this are covered in, "Baluns,
>What They Do And How They Do It", by Roy, W7EL, in the
>ARRL Antenna Compendium, Vol 1, article available at:
>
>http://www.eznec.com/Amateur/Articles/

There are also full constructional details and examples on my site, at:
http://www.ifwtech.co.uk/g3sek/clip-on/clip-on.htm

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1139. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 17:59:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1bff$1_1@spool9-west.superfeed.net>
Source record: 75002

Buck wrote:

> W5DXP wrote:
>>What you are missing is that first piece of matching section
>><which> can be any length less than 1/2WL. After that first
>>piece of matching section, you could indeed switch to a
>>different characteristic impedance. Congratulations, you
>>have just invented the G5RV. :-)
>
> Fred, I believe that you and Cecil are 180 degrees out of phase. Did
> someone make a type-O?

Well, I made an English language blunder as I was editing my posting.
I should have dropped the <which> above. The first piece of matching
section, which can be any length less than 1/2WL, brings the impedance
looking into it to a purely resistive value, i.e. a resonant value,
i.e. a current maximum point. So the first section of matching is the
most important. After that, any Z0 could be used, but *only on that
particular band*. That last *constraint* may be what you are missing
(if you are missing anything at all). I am not aware of any phase
difference between Fred and me.
--
73, Cecil http://www.qsl.net/w5dxp

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1140. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:07:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1dc4$1_1@spool9-west.superfeed.net>
Source record: 75005

Buck wrote:
> I tried it again and got the picture. It appears that the 450 ohm
> twin lead sections can match any impedance between 20 and 100 ohms
> given the proper length.

Not only them, but *any* impedance that causes a 450 ohm
SWR between 4.5:1 and 18:1. That's an infinite number of
impedances (every impedance within the green area) and includes
virtually all the actual impedances encountered when the dipole
is 1/2WL on the lowest frequency of operation. For instance,
the feedpoint impedance of an 80m dipole usually falls into this
green range when used on 40m (and any other HF band) even though
the feedpoint impedance might be 5000 ohms on 40m.
--
73, Cecil http://www.qsl.net/w5dxp

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1141. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:08:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af1e0d$1_1@spool9-west.superfeed.net>
Source record: 75006

John Smith wrote:
> Unfortunately, in the civil trial it only becomes a question of, "Does
> the "child molester" win, or the "extortionists/con-artists"", neither a
> desirable choice... <frown>

It ain't perfect, but better than anything else invented
by man - Cuba comes to mind.
--
73, Cecil http://www.qsl.net/w5dxp

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1142. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:27:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af2296$1_1@spool9-west.superfeed.net>
Source record: 75007

Buck wrote:
> Ok, just to reiterate so I know I understand (and you can see if I
> don't), If I feed a 20 meter dipole cut for my favorite frequency, I
> can feed the radio with exactly 1/2 wave of 450 ohm feedline and it
> will match the radio?

Actually, any integer multiple of 1/2 wavelengths will work

> Of course, coax will make a better match (with
> less loss?)

Amazingly, not necessarily true. Better match? Yes. Less loss?
Not necessarily. Ladder-line with an SWR of 9:1 may actually
have less loss than coax with an SWR of 1:1.

Depends upon the type of coax and the type of ladder-line.

For instance, at 10 MHz, RG174 has a matched line loss of 4 dB
per 100 ft. while 600 ohm open-wire line has a matched line loss
of about 0.075 dB, so small I have trouble reading it on the chart.
Even adding the additional losses due to SWR, the open-wire line
is far, far below the RG174 matched line losses.

> Now, if I understand, the principle of the 130 foot dipole matching
> the rig is based on the length of 450 ohm twin-lead. The twin lead is
> always 1/2 WL long.

Nope. The twin lead is whatever length it takes to resonate
the antenna system plus an integer multiple of 1/2WL. Correct
this concept first before drawing additional conclusions.
--
73, Cecil http://www.qsl.net/w5dxp

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1143. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:34:41 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5rFre.157$D42.12817517@news.sisna.com>
Source record: 75008

Cecil:

Put in that context, I can quite well agree with you--however,
improvement should always be on every just mans mind and heart...

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42af1e0d$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>> Unfortunately, in the civil trial it only becomes a question of,
>> "Does the "child molester" win, or the "extortionists/con-artists"",
>> neither a desirable choice... <frown>
>
> It ain't perfect, but better than anything else invented
> by man - Cuba comes to mind.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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1144. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:36:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <_sFre.158$E42.12818505@news.sisna.com>
Source record: 75009

KAZeringue:

I take it you mean that guy standing on the planet which I have been watching out the porthole window for over an hour--just checked the gauge again, says I am doing the speed of light--but I have began to wonder...

Warmest regards,
John

"KAZeringue" <kazeringue@aol.com> wrote in message news:FFEre.6618$1u3.569513@twister.southeast.rr.com...
> What happens....
>
> Relative to which frame of reference, and does it matter to
> Schrodinger's cat?
>
> :)
>
> W4KAZ
>

1145. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:43:38 UTC
From: Buck <iam@this.site>
Message-ID: <h99ua1huotq1n3077a25ruglaaddt7nhqm@4ax.com>
Source record: 75010

On Sun, 12 Jun 2005 22:31:13 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Buck:
>
>I'd quite imagine a "buck" by any other name--still a buck....
><looking-through-rose-colored-glasses>
>
>Warmest regards,
>John
>

I think that is why I call myself "Mac" during the Fall season. :)

--
73 for now
Buck
N4PGW

1146. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:47:24 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <YU6cYWq8YyrCFA51@ifwtech.co.uk>
Source record: 75013

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> And I most certainly would NOT defend Roy Lewallen if he were wrong.
>>He would hate that... and in the same situation, so would I.
>
>I apologize for exaggerating yesterday's situation through
>hyperbole, a character flaw in my tongue-in-cheek dark humor.
>"Shirley, you jest" is a hint.
>
Oh sorry, wrong name!

>> Well, there it is. Cecil, if you still see any of this as an ego
>>thing, or merely "defending a friend"... then you haven't understood
>>a single word.
>
>And here's your chance to back up those elegant words.
>Here's a repeat of Roy's example:
>
>100v
>source--x----1/2WL 50 ohm feedline----+--200 ohm load
>50 ohm
>
>A 50 ohm SWR meter measures 4:1 at point 'x'. Roy says:
>"But there's a Z0 match at the source in my example."
>What do you say?

Miz Shirley, I don't believe I'm meant to be your partner for this
dance :-)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1147. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:54:26 UTC
From: Buck <iam@this.site>
Message-ID: <eu9ua1ddm0rn4tulsb4m5juabbquiie7ju@4ax.com>
Source record: 75011

On Sun, 12 Jun 2005 23:08:00 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Now the signal leaving the rear of the antenna appears to be leaving it
>at 2X the speed of light (allowing for the VF of space-ether), however,
>the signal off the very front, at least the width of the antenna
>conductor itself, cannot leave (since I am traveling at the speed of
>light the signal appears to just stay on the surface of the
>conductor)--what will happen?

you will wake up?

--
73 for now
Buck
N4PGW

1148. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 18:59:57 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-C4F505.11005414062005@netnews.worldnet.att.net>
Source record: 75014

In article <p5nre.51$Ar4.3040439@news.sisna.com>,
"John Smith" <assemblywizard@gmail.com> wrote:

> I would think a 1KW or greater magnetron run off a non-filtered and
> particularly dirty, but rectified dc supply (you could even feed a ramp
> or triangle dc power wave to the magnetron to cause frequency sweep) and
> into a sloppy waveguide exhibiting multiple resonant frequencies would
> knock out all cell phone and wireless communications on shf+ freqs for
> blocks if not miles... you would probably start jamming the cell towers
> for miles around and have every "pirate transmitter" hunter in America
> on your tail... in a large city/metro area you would cause havoc to
> break out--this WOULD BE ONE SERIOUS OFFENSE!!! If caught, you would
> learn to call prison your home!
>
> And Bruce, in the cell next to you, would fall in love with you!
>
> Not to mention the danger of exposure to the freqs in question--this
> would be best left alone...
>
> John

Bullshit, a 2.4 Ghz Magnitron would NOT cause any problems for any 800
Mhz or even any 1.8 Ghz cellphone system no matter how bad the
powersupply was filtered. This just doesn't COMPUTE, even in another
world, lifetime, or dimension.

Me

1149. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 19:21:09 UTC
From: Buck <iam@this.site>
Message-ID: <uabua1p4bun32h8n40detq63gr5gdjhk0h@4ax.com>
Source record: 75015

On Tue, 14 Jun 2005 07:33:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>In a response to a CB antenna question on the rec.outdoors.rv-travel
>someone posted a link to
>
>http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm
>
>Talk about snake oil salesmen.

(from the website)

>If you find that you are getting unwanted noise (buzzing, popping,
> whining), run your radio power leads straight to one of the vehicles
> batteries. This will by-pass all of the other circuits that could
>cause unwanted interference. Enough said on radios.

Well, it starts out well, at least. Certainly everyone here that has
hooked up a rig in the car found that direct connection to the battery
solved all their problems.

I think someone forgot to tell Ford.

--
73 for now
Buck
N4PGW

1150. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 19:21:45 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <d7Gre.10182$5u4.33388@nnrp1.uunet.ca>
Source record: 75016

On 14/06/2005 12:11 PM, Bill Turner wrote:
> On Tue, 14 Jun 2005 07:33:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
> wrote:
>
>
>>In a response to a CB antenna question on the rec.outdoors.rv-travel
>>someone posted a link to
>>
>>http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm
>>
>>Talk about snake oil salesmen.
>
>
> --
>
> That website is so appallingly full of crap I don't know where to begin.
>
Hey, can someone take the time to do a brief critique of said article?
It might be good to for interested parties to verify their knowledge.

For example, I note:

- The notion that "CB antennas" require a ground plane. My
understanding is that some antenna designs include one or more
counterpoise elements, but that this is different than a ground plane.

- Suggesting that the ground plane is necessary to pick up ground waves.

- Suggesting the ground plane is part of the feedline. If the
groundplane is a counterpoise (as suggested in the first paragraph) why
is the feedline part of the antenna? Is this some sort of special
feedline they are referring to?

- Frequency changes due to changes in the electrical length of the
feedline. Again, unless the feedline really is part of the antenna,
isn't it the idea to have a theoretical perfect feedline can be nearly
any length? That is, from the point of view of the radio equipment, the
feedline has infinite impedance? (I'm fuzzy on this one, so remind me
gently if I'm misleading myself.)

- The discussion of SWR is so wrong it has caused me to forget what it
really is. Sorry.

- The section on tuning somehow conflates the location of the antenna
with it's electrical length.

I invite everyone to set me straight, and in the process offer a good rebuttal of this article.

1151. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 19:34:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af3219$1_2@spool9-west.superfeed.net>
Source record: 75018

John Smith wrote:
> Put in that context, I can quite well agree with you--however,
> improvement should always be on every just man's mind and heart...

Homo sapiens have many flaws. Just look at this newsgroup. :-)
Makes me glad that I was an alien life-form left on my
Southern Baptist parent's door step after being impregnated
with all the wisdom of that ancient alien race.
--
73, Cecil http://www.qsl.net/w5dxp

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1152. Double Hula Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 19:37:51 UTC
From: Buck <iam@this.site>
Message-ID: <06cua19c0d2pu5s6e8obu8bi08fgmdie31@4ax.com>
Source record: 75017

>I was also on vacation recently and tried a quite
>different type of antenna -- the "double hula."
>
>Basically I used each hula hoop as one arm of a
>dipole, fed with 450 ohm ladder line, and energized
>with an FT817 with 30w final amp. The antenna was up
>approx. 16 ft.
>
>On each hoop was wound 30 feet of copper wire. When
>the two hoops were mounted so that each was
>perpendicular with the ground, and each the same
>distance above the ground (kinda like a horizontal
>dipole -- and both were in the same plane) -- I
>connected the wire on each hula hoop so that it made a
>continuous helical circle (with no break) to which I
>connected each side of the ladder line () ()
>
>I loaded it with an Elecraft T1, obtaining a 1:1 SWR
>on all bands 10-80m except for 17, 20 and 40m where
>the SWR was between 1:1 and 1:2. Not too shabby. Had
>contacts on the East Coast from Calif. on 20m.
>
>I tried a lot of other configurations, but the best
>alternative was where the hula hoops were still
>perpendicular to the ground but this time were one on
>top the other in the same plane, and this time the
>wire on the hula hoops wasn't continuous -- there was
>a break in each one (at the points where the hoops
>came closest together). So on each hoop the ladder
>line was connected to one side of the break. Again I
>had 1:1 SWR on all bands except 17, 30 and 40m where
>the SWR was between 1:1 and 1:2 (using the T1). Had a
>few contacts on 20m with this antenna as well.
>
>The downside was that I was running in and out of the
>cabin so often to change the configs that I kept
>hitting the metal roof with my head. There are now 3
>nice healing cuts up there!
>
>I would love to have more time to see what lengths of
>copper wire would work best with the hoops, and to see
>how they'd perform at 50 ft. up. Also, to figure out
>what their propagations patterns are.
>

>If they were used for pedestrian mobile, it's look
>like the user had Mickey Mouse ears ....
>
>-- Bil Paul KD6JUI

This antenna sounds interesting. I wonder how one would model it in
EZNEC demo...

--
73 for now
Buck
N4PGW

1153. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 19:48:04 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <4mcua192ebhqk6lbbjr2ef9sat25igird0@4ax.com>
Source record: 75019

On Tue, 14 Jun 2005 09:05:23 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Tue, 14 Jun 2005 08:52:06 -0500, Cecil Moore <w5dxp@hotmail.com>
>wrote:
>
>>It is a legal fact that he is legally innocent until
>>proven legally guilty.
>
>_____
>
>Is that really a "legal fact" or just a common presumption? The word
>"innocent" does not appear anywhere in the Constitution. Look for
>yourself:
>
>http://www.house.gov/Constitution/Constitution.html
>
>If you know of an actual law which states the above, please quote it.

Amendments V and VI describe a process that would be meaningless
unless one is presumed innocent until proven otherwise.

bob
k5qwg

1154. Re: Double Hula Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 19:52:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g7dua1poj3qcn6q630rem4ehn673v7lteb@4ax.com>
Source record: 75020

On Tue, 14 Jun 2005 15:37:51 -0400, Buck <iam@this.site> wrote:

>This antenna sounds interesting. I wonder how one would model it in
>EZNEC demo...

Hi Buck,

As a resistor.

73's
Richard Clark, KB7QHC

1155. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 20:00:57 UTC
From: Buck <iam@this.site>
Message-ID: <nfdua15ctpv9sv6qkrv42ldlqlpcpkq480@4ax.com>
Source record: 75021

On Tue, 14 Jun 2005 12:38:31 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> This is interesting. I remember reading where the G5RV originated as
>> a gain dipole for 20 meters. I hadn't looked at it as a 1.5wl dipole.
>> I have always used 1.5wl dipoles for 15 (40 meters) and had low SWR on
>> the 15 meter band without a matching network. Am i missing something
>> or is the coax stealing enough power to reduce the SWR?
>
>Bingo! Your 15m SWR at the 40m dipole feedpoint is probably
>above 2:1. Feedline losses both ways probably reduce it to
>a value tolerated by your transmitter. If you replace the
>coax with an integer multiple of 15m halfwavelengths of
>ladder-line to reduce losses, your transmitter may object.
>
>I have inadvertently stepped upon an unpublished article with
>my posting. I apologize and will bow out.

I find it interesting as it has always been flat. Even better on 15
than 40 most of the time. 2:1 isn't terribly bad, most transmitters
allow it, or close to it before reducing power. What is the impedance
of that?

actually I'll try it on eznec, that's one antenna I can model.

Thanks for the comments.

what's the unpublished article? the G5RV? I don't remember where I
have read it, but then as we have seen here many times, not everything
one reads on the internet (or in the newspaper, for that matter) is
accurate.

DOn't shy away. If you know differently, i am open to hearing it.

--
73 for now
Buck
N4PGW

1156. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 20:06:10 UTC
From: Buck <iam@this.site>
Message-ID: <n0eua15nfhbl6agemnj8pqu28d0k5bvtlp@4ax.com>
Source record: 75022

On Tue, 14 Jun 2005 13:27:49 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>> Now, if I understand, the principle of the 130 foot dipole matching
>> the rig is based on the length of 450 ohm twin-lead. The twin lead is
>> always 1/2 WL long.
>
>Nope. The twin lead is whatever length it takes to resonate
>the antenna system plus an integer multiple of 1/2WL. Correct
>this concept first before drawing additional conclusions.

I think I meant a 1/2 wl interval, but apparently that is wrong too.

If I have an antenna at impedance A, I would first run a length of 450
ohm twin lead for X length which will create the matching impedance
and then any integer multiple of a half wave after that.

A and X being unknown.

--
73 for now
Buck
N4PGW

1157. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 20:15:39 UTC
From: Buck <iam@this.site>
Message-ID: <3meua1dtjupqvsfkb5a9hlfli1ncha8uar@4ax.com>
Source record: 75023

On Tue, 14 Jun 2005 12:59:42 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>
> > W5DXP wrote:
>>>What you are missing is that first piece of matching section
>>><which> can be any length less than 1/2WL. After that first
>>>piece of matching section, you could indeed switch to a
>>>different characteristic impedance. Congratulations, you
>>>have just invented the G5RV. :-)
>>
>> Fred, I believe that you and Cecil are 180 degrees out of phase. Did
>> someone make a type-O?
>
>Well, I made an English language blunder as I was editing my posting.
>I should have dropped the <which> above. The first piece of matching
>section, which can be any length less than 1/2WL, brings the impedance
>looking into it to a purely resistive value, i.e. a resonant value,
>i.e. a current maximum point. So the first section of matching is the
>most important. After that, any Z0 could be used, but *only on that
>particular band*. That last *constraint* may be what you are missing
>(if you are missing anything at all). I am not aware of any phase
>difference between Fred and me.

Fred says the matching section needs to be any length more than a 1/2
wave and you say it is less than a 1/2 wave. This is my confusion...

--
73 for now
Buck
N4PGW

1158. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 20:18:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af3c9f$1_2@spool9-west.superfeed.net>
Source record: 75024

Richard Clark wrote:
> 0% for effort,
> 10% for Xerox work
> 0% for graphics
> 0% for showing work
> 0% for correctness
> -10% for inability to use spell-checker (cruse indeed)

How much for everyone refusing to respond to the challenge
at the risk of being proven wrong?
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1159. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 20:47:05 UTC
From: richardharrison@webtv.net
Message-ID: <22136-42AF4249-203@storefull-3256.bay.webtv.net>
Source record: 74875

Cecil, W5DXP wrote:
"Which proves that $500,000 lawyers are better than $50,000 lawyers."

Yes. I was in Scotland a week ago and someone told me that there, besides guilty or not guilty, the Scots have a third verdict available. It is "Guilt not proven". In this verdict the person charged is not exonorated but is released. This "guil not prioven" verdict is said to be the origin of the term "Scot free".

Best regards, Richard Harrison, KB5WZI

1160. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 20:59:37 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <0zHre.170$LG.13697126@news.sisna.com>
Source record: 74876

Cecil:

A "Hindu Alien" with a southern Baptist background? <grin>

... don't worry, I don't take things too seriously--homo sapiens especially... won't live long enough to be able to hold a grudge for any meaningful length of time either--so have given up on that, better left to younger men...

My flawed antenna(s) is/are still functioning to my satisfaction... I am thankful for that...

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42af3219$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> Put in that context, I can quite well agree with you--however,
>> improvement should always be on every just man's mind and heart...
>
> Homo sapiens have many flaws. Just look at this newsgroup. :-)
> Makes me glad that I was an alien life-form left on my
> Southern Baptist parent's door step after being impregnated
> with all the wisdom of that ancient alien race.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> >100,000 Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1161. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:02:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4cgua1d7j12vn753seobjdufubrfvfuqhb@4ax.com>
Source record: 74877

On Tue, 14 Jun 2005 15:18:54 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Richard Clark wrote:
>> 0% for effort,
>> 10% for Xerox work
>> 0% for graphics
>> 0% for showing work
>> 0% for correctness
>> -10% for inability to use spell-checker (cruse indeed)
>
>How much for everyone refusing to respond to the challenge
>at the risk of being proven wrong?

0% for logic

F-

Everyone? You quote me above and you ARE responding to the last in a
chain of responses that annihilated your challenge.

You were off by at least a factor of 10 and your material was grossly
inaccurate - it was that easy to prove you wrong. Those details, have
already been examined and their repetition will change nothing.

1162. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:10:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af48bc$1_2@spool9-west.superfeed.net>
Source record: 74878

Buck wrote:
> what's the unpublished article? the G5RV? I don't remember where I
> have read it, ...

It's somebody else's unpublished article and if it's
"unpublished", of course you haven't read it.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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1163. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:10:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <llhua1dj6t5rp3rgro9s98jtbamqlhk3hs@4ax.com>
Source record: 74880

On Fri, 10 Jun 2005 19:39:24 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Texas A&M custom edition.
This probably cuts to the root of the gross inaccuracies. The
material in this "costume edition" is not up to the necessary math
required for this failed presentation that has been offered.

The math itself is not especially difficult, and it is derivable; but
you have made no effort to even approach a correct solution.

1164. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:12:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <aLHre.172$PN.13712491@news.sisna.com>
Source record: 74879

Bob:

If you don't welcome men/women back into society after they have either run the gauntlet or paid their debt to society--then all you accomplish is creating a whole subset of society which poses great danger when held as "less than acceptable"--indeed, if not careful we can create the monster we fear most.

This is how our ancestors came to overthrow such a kings strangle hold and found this country on principals meant to stop that from ever occurring again--or demand those so oppressed to rise up and throw off such chains once again... it is all recorded in our history...

I think those men who suffered greatly from unfair treatment, indebted servitude, debtors prisons and virtual slavery had it correct--the principals they put forth are as valid today as they were when first stated and put forth...

Still, Michael Jackson would never be left in the presence of my children without me being present... (of course, now all my children are grown) and I would be apprehensive about having him for a neighbor so would set aside a place for him to reside--too bad there are no islands left to exile his type too--perhaps a plea bargain could have been set up with him and he would have gone there willingly...

Warmest regards,
John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:4mcua192ebhqk6lbbjr2ef9sat25igird0@4ax.com...
> On Tue, 14 Jun 2005 09:05:23 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
>>On Tue, 14 Jun 2005 08:52:06 -0500, Cecil Moore <w5dxp@hotmail.com>
>>wrote:
>>
>>>It is a legal fact that he is legally innocent until
>>>proven legally guilty.
>>
>>_____
>>
>>Is that really a "legal fact" or just a common presumption? The word
>>"innocent" does not appear anywhere in the Constitution. Look for
>>yourself:
>>
>>http://www.house.gov/Constitution/Constitution.html

>>
>>If you know of an actual law which states the above, please quote it.
>
> Amendments V and VI describe a process that would be meaningless
> unless one is presumed innocent until proven otherwise.
>
> bob
> k5qwg
>
>

1165. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:20:04 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <cSHre.173$4e1.13794341@news.sisna.com>
Source record: 74881

clvrmnky:

That is a head of a pin... I envision fairies to be dancing upon it
soon...

... just to agree on "semantics" and "proper technical terms" should
take longer than the attention span I have...

Warmest regards,
John
"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message
news:d7Gre.10182$5u4.33388@nnrp1.uunet.ca...
> On 14/06/2005 12:11 PM, Bill Turner wrote:
>> On Tue, 14 Jun 2005 07:33:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
>> wrote:
>>
>>
>>>In a response to a CB antenna question on the rec.outdoors.rv-travel
>>>someone posted a link to
>>>
>>>http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm
>>>
>>>Talk about snake oil salesmen.
>>
>>
>> _____
>>
>> That website is so appallingly full of crap I don't know where to
>> begin.
>>
> Hey, can someone take the time to do a brief critique of said article?
> It might be good to for interested parties to verify their knowledge.
>
> For example, I note:
>
> - The notion that "CB antennas" require a ground plane. My
> understanding is that some antenna designs include one or more
> counterpoise elements, but that this is different than a ground plane.
>
> - Suggesting that the ground plane is necessary to pick up ground
> waves.
>
> - Suggesting the ground plane is part of the feedline. If the
> groundplane is a counterpoise (as suggested in the first paragraph)
> why

> is the feedline part of the antenna? Is this some sort of special
> feedline they are referring to?
>
> - Frequency changes due to changes in the electrical length of the
> feedline. Again, unless the feedline really is part of the antenna,
> isn't it the idea to have a theoretical perfect feedline can be nearly
> any length? That is, from the point of view of the radio equipment,
> the
> feedline has infinite impedance? (I'm fuzzy on this one, so remind me
> gently if I'm misleading myself.)
>
> - The discussion of SWR is so wrong it has caused me to forget what it
> really is. Sorry.
>
> - The section on tuning somehow conflates the location of the antenna
> with it's electrical length.
>
> I invite everyone to set me straight, and in the process offer a good
> rebuttal of this article.

1166. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:25:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3XHre.174$Hk1.13819026@news.sisna.com>
Source record: 74882

Me:

Oh really, so if part of the waveguide is made resonant at 800 MHz and I
am striking it with a "1KW hammer" it will not "ring" at all? Funny,
but that runs against all I have seen here in the real world...

John

"Me" <Me@shadow.orgs> wrote in message
news:Me-C4F505.11005414062005@netnews.worldnet.att.net...
> In article <p5nre.51$Ar4.3040439@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>> I would think a 1KW or greater magnetron run off a non-filtered and
>> particularly dirty, but rectified dc supply (you could even feed a
>> ramp
>> or triangle dc power wave to the magnetron to cause frequency sweep)
>> and
>> into a sloppy waveguide exhibiting multiple resonant frequencies
>> would
>> knock out all cell phone and wireless communications on shf+ freqs
>> for
>> blocks if not miles... you would probably start jamming the cell
>> towers
>> for miles around and have every "pirate transmitter" hunter in
>> America
>> on your tail... in a large city/metro area you would cause havoc to
>> break out--this WOULD BE ONE SERIOUS OFFENSE!!! If caught, you would
>> learn to call prison your home!
>>
>> And Bruce, in the cell next to you, would fall in love with you!
>>
>> Not to mention the danger of exposure to the freqs in question--this
>> would be best left alone...
>>
>> John
>
> Bullshit, a 2.4 Ghz Magnitron would NOT cause any problems for any
> 800
> Mhz or even any 1.8 Ghz cellphone system no matter how bad the
> powersupply was filtered. This just doesn't COMPUTE, even in another
> world, lifetime, or dimension.
>
>
> Me

1167. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:27:22 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <_YHre.28490$J12.5992@newssvr14.news.prodigy.com>
Source record: 74884

'Course, there is a method of running a STABLE SOURCE , relatively
low power , coupled to a microwave oscillator source, and locking
it to a the frequency of the stable source- tho don't know if it works
with Magnetrons-- does with klystrons, and Tuned Grid-Tuned Plate oscs,
tho! Jim NN7K

Me wrote:
> In article <p5nre.51$Ar4.3040439@news.sisna.com>,
> "John Smith" <assemblywizard@gmail.com> wrote:
>
>
>>I would think a 1KW or greater magnetron run off a non-filtered and
>>particularly dirty, but rectified dc supply (you could even feed a ramp
>>or triangle dc power wave to the magnetron to cause frequency sweep) and
>>into a sloppy waveguide exhibiting multiple resonant frequencies would
>>knock out all cell phone and wireless communications on shf+ freqs for
>>blocks if not miles... you would probably start jamming the cell towers
>>for miles around and have every "pirate transmitter" hunter in America
>>on your tail... in a large city/metro area you would cause havoc to
>>break out--this WOULD BE ONE SERIOUS OFFENSE!!! If caught, you would
>>learn to call prison your home!
>>
>>And Bruce, in the cell next to you, would fall in love with you!
>>
>>Not to mention the danger of exposure to the freqs in question--this
>>would be best left alone...
>>
>>John

1168. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:27:31 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <9ZHre.176$ss1.13843509@news.sisna.com>
Source record: 74883

Hey:

You any relation to that guy they call, "MacTruck Buck?" And, you aren't sneaking onto the CB band with your ten meter equip, are ya? <grin>

Warmest regards,
John

"Buck" <iam@this.site> wrote in message news:h99ua1huotq1n3077a25ruglaaddt7nhqm@4ax.com...
> On Sun, 12 Jun 2005 22:31:13 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Buck:
>>
>>I'd quite imagine a "buck" by any other name--still a buck....
>><looking-through-rose-colored-glasses>
>>
>>Warmest regards,
>>John
>>
>
> I think that is why I call myself "Mac" during the Fall season. :)
>
>
> --
> 73 for now
> Buck
> N4PGW

1169. 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:28:30 UTC
From: Buck <iam@this.site>
Message-ID: <c4iua1llv8be8bptmhq89s4u8ti01pdm6r@4ax.com>
Source record: 74885

An earlier discussion brought to mind the question of the 3/2 wl antennas such as using a 40 meter dipole to operate on 15 meters. I just modeled one using the following stats:

1 wire, 66 feet high, 68.8286 feet long. I then pulled an SWR reading from it from 3.5 to 30 MHz using .1 increments. The result was, of course, two dips, one at 7.0 MHz and one at 21.1. By playing with the alternative impedance, I found that 94 ohms matched both frequencies at about 1.15:1.

Here are some observations about it.

at 7.0 MHz, the shows:

50 ohms -- 1.65:1
72 ohms -- 1.14:1
75 ohms -- 1.09:1
94 ohms -- 1.14:1

at 21.1 MHz, I get the following:
50 ohms -- 2.16:1
72 ohms -- 1.5:1
75 ohms -- 1.44:1
94 ohms -- 1.15:1

The above are the lowest SWR readings (which is why 21.1 instead of 21 MHz)

so, how does one make a 94 ohm match?

--
73 for now
Buck
N4PGW

1170. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:29:16 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <sgaua15h41fkhuc3ukldvts9eu3rcvtdam@4ax.com>
Source record: 74886

On Tue, 14 Jun 2005 13:13:01 -0400, Buck <iam@this.site> wrote:

[snip]

>I am not sure what I just did or saw. I had several colored graphs
>charted and one gray. The gray didn't seem to move around, but the
>colored ones sure did. I am afraid I didn't see what you were trying
>to show me. I believe the colors were the different feed lines,
>capacitors, etc used in the feedline shown. I tried removing them and
>only leaving the feedline I chose to use. I don't know if I did
>something wrong or not, but the gray line appeared to be the antenna
>and it never appeared to move. The feedline markers moved radically.

I guess you're looking at the Smith chart in XLZIZL. What you are seeing is correct. The gray trace is the load impedance and absent changes in the antenna it will be fixed. If you look right to the legend you will see what each of the colors represents.

So if you've modeled something in EZNEC and read the resulting data file into ZLZIZL.xls and did a "Refresh and show Smith chart" you will see the data plotted as the "Load"

Let's do a little (bit long) experiment that will clarify this (I hope) and also demonstrate some of what happens in a matching network.

1. Open EZNEC and open the file "BYdipole.ez".

2. Go to "Setups" (at the top of the window) and select "Frequency Sweep."

3. When the pane opens, select "On" and type in 14.35 for the "Stop Frequency" and .05 for the "Frequency Step."

4. Under output. check the box "Microsmith Files" and for file name type "g5rv" and hit Ok.

5. Go to the "Wires" menu and change the Y value for End 1 to -51. Change the Y value for End 2 to 51.

6. Do a "Save As" and type "g5rv".

7. Perform a Freq Swp. (Bottom left button).

8. Open XLZIZL, clear any old data or networks and read the g5rv.gam file.

9. Press "Refresh and show Smith chart."

10. The gray trace is the plotted impedance of the feedpoint of the 102' dipole over the 20-meter band.

11. Now at this point Varney (G5RV) recommended a "matching section" of 34' of open wire line, followed by a run of 72 ohm line to the shack. (If you want to see how bad this idea was, you can experiment with adding the lines in the Network dialog)

12. We are going to do it the "modern" way, by using ladderline and a tuner.

13. In the Network definition dialog, select element position 5 and set the type to "Transmission Line", select "Wireman 554" and set the length to 50'. Set the element and close the pane.

14. Press the "Refresh and show Smith chart." The red trace shows the impedance at the input end of the 50' transmission line. Since the desired target is the center of the chart, we can seen that this was a negative "improvement."

Note: I didn't contrive this feeder length, it was just a round number that seemed like an average situational value that follows the "conventional wisdom" that says, "Use a length long enough to reach from the antenna to the rig."

15. This is what we're stuck with if we decide to use ladderline and a tuner, so let's muddle on.

16. In the ZIZL worksheet at row 38 there are some boxes for Component Q. Enter 500 for Qu(C), 250 for Qu(L) and 14 for Q ref freq.

17. Now let's explore a slick feature of this program and design a matching network. Highlight the cells F106 and F107.

18. Look at cell I43 and press "Copy Selected R,X to T-Pi-L".

19. Focus will transfer to the T-Pi-L worksheet and a query window may open asking whether you want to copy the Q values from the ZIZL sheet. Answer Yes. You will no doubt get a second advisory pane that says that frequencies differ. Answer "Ok". Cell H10 will be selected. Type 14.2 into it and press Enter or Tab to input the data.

20. We are now presented with four built-in matching network solutions. The most used topography for commercial tuners these days is the "High Pass T." (Option 1) So we will use it. You can press "Schematic" and see the configuration. Press the "Copy to FT/Solver" button. (Cell B24)

21. The last action took the precalculated values and moved them to the Fine Tune / Solver Area. For now, we won't explore the attributes of this feature. Press the "Copy to ZIZL 1-3" button. (Cell K26)

22. Focus will return to the ZIZL sheet and a query pane will open. Answer "No." If you look at the network definition table area you can

note that there are now three components in addition to the transmission line in evidence.

23. Press "Refresh and show Smith chart."

24. Focus returns to the Smith chart where a wealth of information is presented. In the upper right corner there is a box that shows exactly what the feed system consists of. The "Plot Segments" box shows the legend for each trace and what the effect of each network component is. The informational box to the left will show the parameters of any data point on any trace by just double clicking the point.

Of course, the trace for Plot Segment 1, the input series C, is what we are after. All but the 14.0 MHz point fall inside a 2:1 SWR circle. Let's see if we can fix that.

25. Press the "Tune / Set" button (lower right corner). Long years of experience tell me to tune the input capacitor first, so that's what we'll do, but this may not always be the case. In the pane that opens, select, "1:Series C", which if all of the calculations are the same, should equal 51.2 pF. Mouse down a bit and find the +-1% option and select it. We are going to "tune" the input capacitor in 1% steps. Click the "Increase" up-arrow three times. Voila! The SWR is less than 2:1 over the whole 20-meter band with one set of adjustments. With each click you could see the action of "tuning" this component. Note that none of the other traces moved at all. All we changed was the match between the input and the junction of the input C and the shunt L. The match from the junction to the antenna was unaffected.

Because this is getting a bit long-winded and off-topic, I'm going to stop here and pick this up in a new thread.

>
>
>I haven't thought a lot about the losses in ladder-type feedline, but
>I do understand how the losses in coax can reduce High SWR by reducing
>both the outgoing and incoming reflected signals in the coax. This
>may make the antenna desirable to the rig, but it doesn't do any good
>for the operator who is trying to reach or copy that weak signal.

Correct.

>It
>may well be that the Twin-lead has the same effect.

It does.

>I often read that
>one of the advantages of the twin-lead is that it can handle higher
>SWR without the higher losses of coax.
>

>I seem to have been seeing a lot about the technology of the twin-lead
>tuning technology, but then I can't be sure it wasn't from the same
>people here on this forum. I'll continue to look into it to see what
>I might learn.

Some of the people here know what they are talking about... others I'm
not so sure. I'm unlocking the tool box, so you can figure it out
yourself.

>
>I was able to get past whatever block I had on learning to use EZNEC,
>so at least some good came from this discussion. Hopefully, I'll
>learn more and can model this antenna and others I read about.

I'm sure you will.

>
>Thanks very much for taking the time to address this with me.

No problem. The guys that really deserve the thanks are the geniuses
1: who developed the NEC engine, 2: Roy, W7EL, (among others) who put
a pretty face on it, and 3: Dan Maguire, AC6LA, who did the Excel
stuff.

And the absolutely amazing thing is, they give away their work! Is
this a great country or what?

Regards,

Wes N7WS

1171. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:34:29 UTC
From: Buck <iam@this.site>
Message-ID: <o0jua19khgf3uv8nia521ho8t2q000vh9l@4ax.com>
Source record: 74887

On Tue, 14 Jun 2005 14:27:31 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Hey:
>
>You any relation to that guy they call, "MacTruck Buck?" And, you aren't
>sneaking onto the CB band with your ten meter equip, are ya? <grin>
>
>Warmest regards,
>John
lol, no, I have 4 CB frequencies programmed into my 706, Channels 9,
18, 19, and 20. I have them all on a split with the transmit side on
2 meters simplex., as I do with the wx channels and other frequencies
I don't wish to transmit on.

I figure that if I can't get help on 2 meters, HF and a cell phone, I
would be better off calling on CB than on the local sheriffs's
frequencies :). I really don't hear anything there worth listening
too unless I am away and caught in highway traffic. The CBers will
discuss the traffic and how to get around it most of the time.

I keep FRS radios with me when traveling with non-hams in convoy.

Most of the time I am mobile, I am on 14.336 aggravating KZ2P/N2JG.

--
73 for now
Buck
N4PGW

1172. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:35:26 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <y4Ire.1090$NU5.1034@newssvr13.news.prodigy.com>
Source record: 74888

>>>In a response to a CB antenna question on the rec.outdoors.rv-travel
>>>someone posted a link to
>>>
>>>http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm
>>>
>>>Talk about snake oil salesmen.
>>
>>
>>_____
>>

Does this site end with--- "To start a QSO, RUB 2 of our "FIRESTICK"
antennas together- the distance desired is reached by the more you
rub your antennas together" (???) Kickapoo Joy Juice! NN7K

1173. Re: 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:38:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ahjua1htebvdd4mrv0d439at7lljl8j69s@4ax.com>
Source record: 74889

On Tue, 14 Jun 2005 17:28:30 -0400, Buck <iam@this.site> wrote:

>so, how does one make a 94 ohm match?

Hi Buck,

Dip a 94 Ohm resistor in a solution of Red Phosphorus and Potassium
Chlorate and let it dry. ;-)

73's
Richard Clark, KB7QHC

1174. Re: Double Hula Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:39:36 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <s8Ire.1092$NU5.1084@newssvr13.news.prodigy.com>
Source record: 74890

Carbon, or Wire-Wound ? :>) Jim NN7K

Richard Clark wrote:
> On Tue, 14 Jun 2005 15:37:51 -0400, Buck <iam@this.site> wrote:
>
>
>>This antenna sounds interesting. I wonder how one would model it in
>>EZNEC demo...
>
>
> Hi Buck,
>
> As a resistor.
>
> 73's
> Richard Clark, KB7QHC

1175. Re: 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:46:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11auk13pri8nld0@corp.supernews.com>
Source record: 74891

Buck wrote:
>
> so, how does one make a 94 ohm match? [at both 7 and 21 MHz]

1. A 2:1 transformer.
2. An LC network. I think at least three components would be necessary for matching at both frequencies, and an exact match would probably require four.
3. A number of different schemes using transmission line stubs.
4. Don't bother. There's nothing wrong with a 2:1 SWR. Feedline loss will reduce it further.

A couple of other notes:

I often use a 40 meter dipole for 15 meters on Field Day. I put a small inductor at the feedpoint to bring the resonance down to the bottom end of 15; it doesn't have much effect at 7 MHz. (If it did, I could get resonance on both bands by alternately adjusting the antenna length and inductor value.)

You can make a nice bidirectional pattern with some gain in two specific directions on 15 by bending the wires toward each other by 30 degrees to make a horizontal vee with 120 degree included angle. This only has a minor effect on the pattern on 40 meters.

Roy Lewallen, W7EL

1176. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 21:58:44 UTC
From: Buck <iam@this.site>
Message-ID: <ccjua1de25tf0urmhtc4p5h5sep9btvnph@4ax.com>
Source record: 74892

On Tue, 14 Jun 2005 12:30:48 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Buck wrote:
>> I seem to have been seeing a lot about the technology of the twin-lead
>> tuning technology, but then I can't be sure it wasn't from the same
>> people here on this forum. I'll continue to look into it to see what
>> I might learn.
>
>The "twin-lead tuning technology" is based on the laws of
>physics, not the approval of the gurus on this newsgroup.

I am not in a position to argue with either side on the issue. I am
just doing my best to learn. Here is one lesson I learned in 25 years
of ham radio, Either there is sufficient propagation for your station
or there is not. Without propagation, a kw amp in a 12 element beam
will not get you across the ocean, and if there is sufficient
propagation, one can make a contact with a dummy load (I saw this
demonstrated once on 75 meters).

Probably the things I remember most about antennas is what I learned
from the two Jims of Taylor Radio, a local antenna MFG company at the
time. "More technological advancements have been made in marketing
departments than in Research and Development."

I realize that there are several here who actively disagree and
discuss their disagreements with each other. I haven't seen any, so
far, that are all BS and have no knowledge to offer. I don't
criticize anyone, but I will ask, suggest, and offer opinions that I
hope will be either corrected or supported appropriately.

I have used experimental antennas that theoretically won't 'work' and
made contacts. One was a roll of 500 foot of wire. I unrolled an
estimated 1/4 wave of wire for 80 meters, on the first try it was
1.5:1 or less and I used it to check into the GA SSB net. I had a
weak signal, but it worked. I also hung an inverted V with a random
length of wire from each side (I don't remember the length, but they
were both the same length.) I connected one side of the feedline and
dipole to the left side of a 100ohm resistor and the other side of the
feedline and dipole to the other side of the resistor. My theory was
that the antenna would be a parallel circuit leaving the impedance
below 100 ohms. I don't know if my theory worked, but I did make
contacts. When I took down the antenna and replaced it with a shorter
dipole, I had a much better receiver than I had with the resistor.

I am always looking for that 'best' all-band hf antenna so I don't have to change or tune, etc. One day I'll either find it or die trying. Until then, I plan to enjoy learning more about antennas and experimenting with them.

73 for now
Buck

--
73 for now
Buck
N4PGW

1177. Re: antenna voltage - between what two points?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 22:00:50 UTC
From: jgboyles@aol.com
Message-ID: <1118786450.870443.224120@g44g2000cwa.googlegroups.com>
Source record: 74893

Don Gillies wrote:
> In all the antenna books I have read there are copious diagrams of voltage
> distributions along the various types of antenna, but as far as I can see,
> none of them has explained where the two points are that the voltage is
> being measured between. Can anyone enlighten me on this please?
>
> DG

Hi Don, If one is making a voltage reading, it is between a
reference node, 0.0 volts and a point which is higher or lower in
potential. The voltage distribution on the antennas you saw are
probably with respect to earth or the rest of the universe if you are
in space. This is the reference for the voltage along the antenna.
Volts and current on an antenna are periodic if the antenna is
radiating continously, and you can measure potential difference between
different points along the antenna. I don't think this is what the
diagrams you saw refer, it is with respect to earth, or ground.
73 Gary N4AST

1178. Re: 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 22:07:37 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <6-Sdnc32kLu1yDLfRVn-2w@comcast.com>
Source record: 74894

"Buck" <iam@this.site> wrote in message
news:c4iua1llv8be8bptmhq89s4u8ti01pdm6r@4ax.com...
> An earlier discussion brought to mind the question of the 3/2 wl
> antennas such as using a 40 meter dipole to operate on 15 meters. I
> just modeled one using the following stats:
>
> 1 wire, 66 feet high, 68.8286 feet long. I then pulled an SWR reading
> from it from 3.5 to 30 MHz using .1 increments. The result was, of
> course, two dips, one at 7.0 MHz and one at 21.1. By playing with the
> alternative impedance, I found that 94 ohms matched both frequencies
> at about 1.15:1.
>
> Here are some observations about it.
>
> at 7.0 MHz, the shows:
>
> 50 ohms -- 1.65:1
> 72 ohms -- 1.14:1
> 75 ohms -- 1.09:1
> 94 ohms -- 1.14:1
>
> at 21.1 MHz, I get the following:
> 50 ohms -- 2.16:1
> 72 ohms -- 1.5:1
> 75 ohms -- 1.44:1
> 94 ohms -- 1.15:1
>
>
> The above are the lowest SWR readings (which is why 21.1 instead of 21
> MHz)
>
> so, how does one make a 94 ohm match?
>
>
> --
> 73 for now
> Buck
> N4PGW

You might try this, connect a 50 Ohm feedline to the antenna through an electrical 1/4 wave section of 75 Ohm coax. That should help the SWR on 21, without much effect on 7.

BTW, Roy mentioned bending the elements to form a V. That is what is done on some VHF TV antennas. They work on fundamental mode on channels 2 -6 and 3/2

mode on channels 7 - 13. If you didn't bend the elements, channels 7 - 13 would not come in from the same direction as 2 - 6.

Tam/WB2TT

1179. Re: 900Mhz Antenna improvement

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 22:24:54 UTC
From: WSQT <wsqtradio@ziplip.com>
Message-ID: <1118787894.032940.43850@g44g2000cwa.googlegroups.com>
Source record: 74895
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.radio.pirate

Yagi antennas for frequencies this high are ridiculously compact and easy to build! A full wave is only in the 33 CM area, so a "long" Yagi with 6 or 7 elements would look like a yardstick with 5 inch wires bristling from it. If you only need to send signal in a particular direction, this is the way to go-and reduces the chance of unwanted "listeners" in another direction.

If you need omnidirectional gain, stacked turnstiles floor to ceiling , looking like a pole lamp brisling with 5" crosses, would do it, yielding maybe 9dB or so of gain by flattening out the pattern. Multiple half waves in phase (vertical with 1/2 wave phaseing sections) will do it with vertical polarization. In stacking anything, you get about 3dB gain for each doubling of the number of elements.

Shit, hams on 1215 MHZ and 1KW amps are communicating by bouncing signals off the MOON, with antennas yielding 30dB plus gain being reasonable in size due to short UHF wavelengths.

1180. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 22:34:45 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <vtlua1d5jice476vjp17ta8on1o84roptv@4ax.com>
Source record: 74896

On Tue, 14 Jun 2005 17:58:44 -0400, Buck <iam@this.site> wrote:

[snip]

>I have used experimental antennas that theoretically won't 'work' and
>made contacts.

Me too.

When I was 16, and a newly minted Conditional class, my BC-342 receiver broke (I still have it and it's still broken...gotta fix that someday). I had a Heathkit DX-100 transmitter, which covered 160 meters. So I took an old tube type car radio, which in those days used a 262 KHz i-f and permeability tuning, and tweaked the inductors so it would tune the 160-meter band. I acquired a 262 KHz crystal and built an oscillator that I just let leak into the receiver for a bfo so I could copy CW.

My bedroom (shack) had steel casement windows and I had removed a pane and replaced it with a sheet of aluminum (no access to plastic in those days or coax, I was poor) with some ceramic feed thru insulators. I ran a single wire from the rig to near the top of a Eucalyptus tree (talk about dying for an antenna). I don't remember the length, maybe 100 feet, or the ground system; a single rod I think.

My first and only contact with that setup was DX; a VE7. The logs for those days are long gone so he's not in the current computer log. But if he was I would have a grand total of five countries worked on 160; about one every ten years [g].

1181. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 22:56:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11auo54q81tt8fc@corp.supernews.com>
Source record: 74897

Buck wrote:
> . . .
> I have used experimental antennas that theoretically won't 'work' and
> made contacts. One was a roll of 500 foot of wire. I unrolled an
> estimated 1/4 wave of wire for 80 meters, on the first try it was
> 1.5:1 or less and I used it to check into the GA SSB net. I had a
> weak signal, but it worked. I also hung an inverted V with a random
> length of wire from each side (I don't remember the length, but they
> were both the same length.) I connected one side of the feedline and
> dipole to the left side of a 100ohm resistor and the other side of the
> feedline and dipole to the other side of the resistor. My theory was
> that the antenna would be a parallel circuit leaving the impedance
> below 100 ohms. I don't know if my theory worked, but I did make
> contacts. When I took down the antenna and replaced it with a shorter
> dipole, I had a much better receiver than I had with the resistor.
>

What theory is it which says those antennas won't "work", given that your criterion for "working" is making contacts? I've made contacts on a light bulb, worked Alaska from a Colorado basement on 20 meters with 50 watts of SSB using a dipole(*) draped around the room with no part higher than ground level, worked New Hebrides on 40 meter CW running 1.5 watts to a bent attic dipole(**) 16 feet off the ground, and JA running 8 watts on 40 meter CW with a base loaded CB whip bumper mounted on a VW. These aren't exceptional -- every ham who's operated for some time has a handful of similar stories. All those antennas "worked". Any theory which declares they can't is wrong, and should be discarded. No theory I know says they can't.

(*) The feedline was 72 ohm twinlead, with one conductor stuck into the rig's SO-239 center pin and the other clipped onto the rig's chassis.
(**) Coax fed, no balun.

Roy Lewallen, W7EL

1182. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 22:57:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af61bd$1_1@spool9-west.superfeed.net>
Source record: 74898

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Texas A&M custom edition.
>
> This probably cuts to the root of the gross inaccuracies.

The only difference in the Texas A&M custom edition of
"University Physics" and the other editions is the big
maroon 'T' on the cover. Hint: Bad-mouthing Texas A&M
is probably a negative return on investment for you.
There's a good chance that one of your superior officers
in the military graduated from Texas A&M.

General Patton once remarked something to the effect:
Give me a bunch of West Point officers and I will win
a battle. Give me a few Texas A&M officers and I will
win the war (actual quote although not verbatim).
--
73, Cecil http://www.qsl.net/w5dxp

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1183. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 23:00:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af6268$1_1@spool9-west.superfeed.net>
Source record: 74899

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Texas A&M custom edition.
>
> This probably cuts to the root of the gross inaccuracies.

The only difference in the Texas A&M custom edition of
"University Physics" and the other editions is the big
maroon 'T' on the cover. Hint: Bad-mouthing Texas A&M
is probably a negative return on investment for you.
There's a good chance that one of your superior officers
in the military graduated from Texas A&M.

General Patton once remarked something to the effect:
Give me a bunch of West Point officers and I will win
a battle. Give me a few Texas A&M officers and I will
win the war (actual quote although not verbatim).
--
73, Cecil http://www.qsl.net/w5dxp

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1184. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 23:12:35 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <GvJre.200$fO3.14314620@news.sisna.com>
Source record: 74901

Buck:

Just a bit of kidding is all... I wasn't serious...

Amen! to the cellphone, I certainly feel safe with it in my pocket... 2 meters+ and repeaters have never been my bag... but have some equip here...

I prefer the aussies and the brits on HF for convo with (one aussie gal in particular <grin>)... some cannoks are ok...

... when someone mentions cw I run! I have some homebrew equip here and use a keyboard and code reader--but haven't even done that in over a year...

Warmest regards,
John

"Buck" <iam@this.site> wrote in message
news:o0jua19khgf3uv8nia521ho8t2q000vh9l@4ax.com...
> On Tue, 14 Jun 2005 14:27:31 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Hey:
>>
>>You any relation to that guy they call, "MacTruck Buck?" And, you
>>aren't
>>sneaking onto the CB band with your ten meter equip, are ya? <grin>
>>
>>Warmest regards,
>>John
> lol, no, I have 4 CB frequencies programmed into my 706, Channels 9,
> 18, 19, and 20. I have them all on a split with the transmit side on
> 2 meters simplex., as I do with the wx channels and other frequencies
> I don't wish to transmit on.
>
> I figure that if I can't get help on 2 meters, HF and a cell phone, I
> would be better off calling on CB than on the local sheriffs's
> frequencies :). I really don't hear anything there worth listening
> too unless I am away and caught in highway traffic. The CBers will
> discuss the traffic and how to get around it most of the time.
>
> I keep FRS radios with me when traveling with non-hams in convoy.
>
> Most of the time I am mobile, I am on 14.336 aggravating KZ2P/N2JG.
>

>
> --
> 73 for now
> Buck
> N4PGW

1185. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-14 23:34:22 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <26qua1pir2f1t2rok1dqa3btthf2ebh7f9@4ax.com>
Source record: 74900

On Tue, 14 Jun 2005 14:12:34 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>
>Still, Michael Jackson would never be left in the presence of my
>children without me being present... (of course, now all my children are
>grown) and I would be apprehensive about having him for a neighbor so
>would set aside a place for him to reside--too bad there are no islands
>left to exile his type too--perhaps a plea bargain could have been set
>up with him and he would have gone there willingly...
>
>Warmest regards,
>John

No disagreement -- I was only talking legalities of "guilty" or "not",
not whether anyone would want to leave their kids with Jacko for a
bunk-over...

bob
k5qwg

>
>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:4mcua192ebhqk6lbbjr2ef9sat25igird0@4ax.com...
>> On Tue, 14 Jun 2005 09:05:23 -0700, Bill Turner <noway@nohow.com>
>> wrote:
>>
>>>On Tue, 14 Jun 2005 08:52:06 -0500, Cecil Moore <w5dxp@hotmail.com>
>>>wrote:
>>>
>>>>It is a legal fact that he is legally innocent until
>>>>proven legally guilty.
>>>
>>>_____
>>>
>>>Is that really a "legal fact" or just a common presumption? The word
>>>"innocent" does not appear anywhere in the Constitution. Look for
>>>yourself:
>>>
>>>http://www.house.gov/Constitution/Constitution.html
>>>
>>>If you know of an actual law which states the above, please quote it.
>>
>> Amendments V and VI describe a process that would be meaningless
>> unless one is presumed innocent until proven otherwise.

>>
>> bob
>> k5qwg
>>
>>
>

1186. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:04:14 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <r9Kre.86513$lQ3.5433@bignews5.bellsouth.net>
Source record: 74902

You're just jealous because your spacecraft can't keep up.
John - Lets slow down and wait for Cecil, he can't seem to operate his accelerator at this speed.
Cecil, don't let those Laws of Physics tie you to the old way of thinking, the string theory (or should I say string philosophy) will come to the rescue.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42ae2207$1_2@spool9-west.superfeed.net...
> Hal Rosser wrote:
> > Now if my spacecraft pulls up alongside, and I <<stomp it>> would you see my
> > dust?
>
> Nope, your foot cannot move when you are traveling at the
> speed of light. Neither can dust. Time stands still so
> absolutely nothing happens.
> --
> 73, Cecil http://www.qsl.net/w5dxp

1187. Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:05:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <dhKre.202$Dm4.14664776@news.sisna.com>
Source record: 74911

I need to come up with a dummy load for a 250+ watt xmitter.

IF I take two 100 watt wire wound resistors in parallel (for 50 ohms)
and put them in a can full of silicone oil and feed it though an L-Match
should it work?

Warmest regards,
John
--
Watching the cutting edge of yesterday replay--in virtual reality, right
before my eyes--in real time!
Thirty year old technology--wasn't it amazing?

1188. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:13:49 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qiKre.86516$lQ3.71676@bignews5.bellsouth.net>
Source record: 74903

Doggone it - and I thought Time was a pretty good invention.
It - kinda keeps all things from happening simultaneously.
Like - last night was a transition between yesterday and today.
And because of 'time' kids learn to walk before they go to college and learn
to drink.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42aee2c8$1_1@spool9-west.superfeed.net...
> Hal Rosser wrote:
> > So movement IS real, but time is not real.
>
> In Barbour's book, "The End of Time", both time and
> movement are illusions. Change is real.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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1189. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:24:11 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XyKre.205$o05.14988426@news.sisna.com>
Source record: 74909

Hal said, "And because of 'time' kids learn to walk before they go to
college and learn
to drink."

When I found out about whiskey--the first thing I did was ask my mother
why she did not put it in my baby bottle!!! <grin>

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:qiKre.86516$lQ3.71676@bignews5.bellsouth.net...
> Doggone it - and I thought Time was a pretty good invention.
> It - kinda keeps all things from happening simultaneously.
> Like - last night was a transition between yesterday and today.
> And because of 'time' kids learn to walk before they go to college and
> learn
> to drink.
>
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42aee2c8$1_1@spool9-west.superfeed.net...
>> Hal Rosser wrote:
>> > So movement IS real, but time is not real.
>>
>> In Barbour's book, "The End of Time", both time and
>> movement are illusions. Change is real.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
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>
>

1190. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:34:29 UTC
From: Buck <iam@this.site>
Message-ID: <mmtua19bbt4rmmcqdn13l9hsafb85qkv71@4ax.com>
Source record: 74904

On Tue, 14 Jun 2005 14:29:16 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>No problem. The guys that really deserve the thanks are the geniuses
>1: who developed the NEC engine, 2: Roy, W7EL, (among others) who put
>a pretty face on it, and 3: Dan Maguire, AC6LA, who did the Excel
>stuff.
>
>And the absolutely amazing thing is, they give away their work! Is
>this a great country or what?
>
>Regards,
>
>Wes N7WS

Thanks for the help, Wes. I will be looking for that additional
thread. One of these days I'll get rich and famous and I can budget
the cost of EZNEC and get the full copy. 20 elements is just not
quite what I need for an antenna I am toying with in my mind.

BTW, how closely does the program get the measurements for antennas?
If I plot a dipole and EZNEC says the length should be 45 feet, will I
need to trim the antenna to a different length or will it be within an
inch or two?

--
73 for now
Buck
N4PGW

1191. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:35:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11autue8013bg5b@corp.supernews.com>
Source record: 74905

U.S. patent 6,025,810: "Hyper-Light-Speed Antenna", issued Feb. 15, 2000:

"The present invention has discovered the apparent existence of a new dimension capable of acting as a medium for [RF] signals. Initial benefits of penetrating this new dimension include sending RF signals faster than the speed of light, extending the effective distance of RF transmitters at the same power radiated, penetrating known RF shielding devices, and accelerating plant growth exposed to the by-product energy of the RF transmissions."

Snif. Kinda makes you all weepy and proud, doesn't it? Is this a great country, or what. Hope y'all got your flags out and wavin'.

It's all there, at http://uspto.gov.

Roy Lewallen, W7EL

1192. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:41:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1esua1lcv6u2g25d86ap9tij3ot7apisfd@4ax.com>
Source record: 74906

On Tue, 14 Jun 2005 17:57:16 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
> (actual quote although not verbatim).
then it is not a quote, is it?

You would do far better exemplifying than simply offering 2 degrees of
separation from someone famous (it could have been Madonna).

Anyway, no one really expects you to fix your errors. But we do
expect better Xeroxing from Bartlett's Quotations for lame excuses.

1193. Re: 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 00:55:36 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <CqKdnVRQG50a4TLfRVn-jw@comcast.com>
Source record: 74907

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:6-Sdnc32kLu1yDLfRVn-2w@comcast.com...
>
> "Buck" <iam@this.site> wrote in message
> news:c4iua1llv8be8bptmhq89s4u8ti01pdm6r@4ax.com...
>> An earlier discussion brought to mind the question of the 3/2 wl
>> antennas such as using a 40 meter dipole to operate on 15 meters. I
>> just modeled one using the following stats:.....

Buck,
I ran EZNEC on your antenna, and the 1/4 wave section works like a charm. However it does not do anything to bring down the frequency of the 3/2 mode. You need to use another TV antenna trick. On a VHF antenna, elements that are resonant on CH5 and CH6 do no good in the 3/2 mode because they are resonant above CH13. What is done is this: you put a CAPACITOR in the element, like a loading coil would be. This forces you to make the element longer to work on the fundamental. The capacitor has less effect on the 3X frequency; So, you can actually have the 3X resonance be less than 3 times the 1X resonance.

Here is what I got:

Length +/- 34.5 feet
1/4 Wave section of 75 Ohm coax.
100 PF capacitor in each half of the dipole, about 5% in from each end.
SWR=1.5 at 7.0 MHz (50 Ohm)
SWR=1.1 at 21.2 MHz (50 Ohm)

I took a guess at the 100 PF number, and the capacitor placement; so, you can optimize it. Note that the further you move the capacitors from the ends of the antenna, the more effect they will have on the fundamental.

Tam/WB2TT

1194. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 01:04:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42af7f77$1_2@spool9-west.superfeed.net>
Source record: 74908

Roy Lewallen wrote:
> U.S. patent 6,025,810: "Hyper-Light-Speed Antenna", issued Feb. 15, 2000:
>
> "The present invention has discovered the apparent existence of a new
> dimension capable of acting as a medium for [RF] signals. Initial
> benefits of penetrating this new dimension include sending RF signals
> faster than the speed of light, extending the effective distance of RF
> transmitters at the same power radiated, penetrating known RF shielding
> devices, and accelerating plant growth exposed to the by-product energy
> of the RF transmissions."
>
> Snif. Kinda makes you all weepy and proud, doesn't it? Is this a great
> country, or what. Hope y'all got your flags out and wavin'.
>
> It's all there, at http://uspto.gov.

Not only that - I saw it demonstrated on The Discovery Channel.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1195. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 01:44:07 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <IJLre.217$GF6.15480927@news.sisna.com>
Source record: 74910

Never mind, just dropped a so-239 on an old gallon can and wired it
up--seems to work great, but haven't checked the swr on the outside of
the can yet... <grin>

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:dhKre.202$Dm4.14664776@news.sisna.com...
>I need to come up with a dummy load for a 250+ watt xmitter.
>
> IF I take two 100 watt wire wound resistors in parallel (for 50 ohms)
> and put them in a can full of silicone oil and feed it though an
> L-Match should it work?
>
> Warmest regards,
> John
> --
> Watching the cutting edge of yesterday replay--in virtual reality,
> right before my eyes--in real time!
> Thirty year old technology--wasn't it amazing?
>
>

1196. Re: Names

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:00:39 UTC
From: Larry <larryw@holbrookmasons.org>
Message-ID: <3h9geaFg174sU2@individual.net>
Source record: 74912

John Smith wrote:
> A time back, it was pointed out to me by some individual in this thread
> that they could not value anything about me--without knowing my correct
> identity

</lurk>
Interesting concept. It causes me to wonder whom he or she may have
been trying to impress.
<lurk>

Larry
N1POP

1197. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:15:00 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <pk3va1d7hm9lhv7rrdqgv471r15s9t997c@4ax.com>
Source record: 74913

On Tue, 14 Jun 2005 07:33:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>In a response to a CB antenna question on the rec.outdoors.rv-travel
>someone posted a link to
>
>http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm
>
>Talk about snake oil salesmen.

Wow, I didn't know that aluminium doesn't make a good ground plane! I
quess all of those aluminium chassis are just no good! I especially
liked the SWR explanation. I'm going to use it when next I teach an
Extra class.

R

1198. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:38:39 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e2861$42af94b0$97d55d24$15408@ALLTEL.NET>
Source record: 74914

No we are saying the same thing two different ways. Let's first talk about the matching section. For example a G5RV may be modified by adjusting the feedline length from about 22 to 38 feet. From the end of the matching section you can run any practical length of coax.

If you had the top of your G5RV mounted at 100 feet, those length might not be practical. Adding an additional 1/2 wave length, or multiple thereof would allow the mechanism that switches in lengths of matching sections to be at ground level.

For example my 132 foot dipole uses 90 feet of fixed 450 ohm ladderline to the relay box. It is matched at 4035 and I then add sections to lower the frequency. 3.5 MHz requires an additional 39 feet.

On 7.3 the first Imax point is at 29.5 feet and adding an additional 1/2 wave brings us to 90.3 feet. We could just as easily used 151, 211, 272, 333 etc. Feet.

Where is the matching section? The first or the last 29.5 feet on the 90.3 feet? I think you could say that the first section matches the antenna impendence to somewhere around 50 Ohms and the 1/2 wave simply repeats it. Or you could say the first 1/2 wave section repeats the antenna impendence and the last 23 feet matches it. Potato, Patata, they both make the same fries.

"Buck" <iam@this.site> wrote in message
news:ck4ua1l61cldre7pbub520kuqt7r4o2d4e@4ax.com...
> On Thu, 9 Jun 2005 00:27:26 -0400, "Fred W4JLE" >

Fred, I believe that you and Cecil are 180 degrees out of phase. Did
> someone make a type-O?
>
> --
> 73 for now
> Buck
> N4PGW

1199. Re: Solarcon A-99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:40:43 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <LyMre.459$yW.130@fed1read02>
Source record: 74915

gb wrote:

> "Dave Piggin" <d.piggin@zetnet.co.uk> wrote in message
> news:313030303837383542AF04B063@zetnet.co.uk...
>> Hi Guys, Just been to the web site for the info on the Solarcon A-99.
>>
>> What I now need to know is how to remove the internals intact. Question
>> is; how is the wire at the radiating end terminated in the metal
>> housing, is it soldered in or machined in? at the centre or the side?
>> Obviously the short length of coax is soldered in at the PL239 end. All
>> the joints in the first section are loose now, so I just need to remove
>> the internals to see what's happening. I don't have continuity here but
>> surely I should, even if shunt fed!! I don't want to pull too hard in
>> case I end up damaging the coils Etc. I just fancy playing on 10 or 15/P
>> if it tunes up decent enough and the bands open. Any Idea's. Cheers and
>> TIA Dave
>>
> Dave -
>
> The "EXPOSED" web site has that photo
>
> A few years ago KG6AOH wrote 2 articles on the disassembly "EXPOSED"
> of the IMAX 2000 and Solarcon Antron 99 antennas. I do not believe that
> he currently has a website with this information.
>
> Solarcon Antron 99 EXPOSED (Adobe Acrobat document) -
> useful for education in how antenna is constructed and possible repairs -
> if required
> http://www.kb8ygc.com/a99.pdf
>
> Solarcon Products
> Tencom, LTD
> 7134 Railroad Street
> Holland, OH 43528
> 1-800-445-3991
> USA
>
> w9gb

about a decade back, I used to know an antenna engineer at Solarcon. He detailed to me the schematic for the antron (I wanted to use a similar setup for ham radio). The circuit is fairly simple and designed mostly for lightning protection..... :)

meanwhile, I use the homebuilt version running here at home on the 2 meter band (and it works nicely).

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

1200. Re: Mobile Antenna Matching Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:41:54 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42af9572$0$3708$39cecf19@news.twtelecom.net>
Source record: 74916

Ian White GM3SEK wrote:

> In other words, Cecil's circulator is a device that takes a perfectly
> straight-forward argument... and makes it circular.
>

Always thrusting staight into that very round bullseye, Ian.

73
Tom
K0TAR

1201. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:51:52 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <2d5va1hn4cke442g95313ihn3nhvu5p55r@4ax.com>
Source record: 74917

On Tue, 14 Jun 2005 14:29:16 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

[snip]

>1. Open EZNEC and open the file "BYdipole.ez".
>
>2. Go to "Setups" (at the top of the window) and select "Frequency
>Sweep."
>
>3. When the pane opens, select "On" and type in 14.35 for the "Stop
>Frequency" and .05 for the "Frequency Step."
>
>4. Under output. check the box "Microsmith Files" and for file name
>type "g5rv" and hit Ok.
>
>5. Go to the "Wires" menu and change the Y value for End 1 to -51.
>Change the Y value for End 2 to 51.
>
>6. Do a "Save As" and type "g5rv".
>
>7. Perform a Freq Swp. (Bottom left button).

A little mea culpa. The above sequence fails to identify the
segmentation error in this model. I'm so used to using Multinec to
interface to EZNEC that I forgot that when using EZNEC directly this
error isn't trapped.

EZNEC's automatic segmentation check doesn't run when changing wire
lengths. It will allow the change that I made that results in too few
segments in the new length. The minimum number should be 13, with
more the merrier. With this simple structure, however, the error is
small and the other results are generally acceptable.

1202. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 02:54:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8ded4$42af984c$97d55d24$18715@ALLTEL.NET>
Source record: 74918

Let me answer each question below

"Buck" <iam@this.site> wrote in message
news:4e5ua1hul509ffgnha4l4rh22r9ru0ujck@4ax.com...
> On Thu, 9 Jun 2005 16:30:18 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Given an antenna that has 50 Ohms +J0, feed it with 50 ohm line and the
swr
> >for the system is 1:1, substitute a 1/2 wave of 450 ohm line and the
antenna
> >and the rig are both at 50 ohms. The SWR on the feedline is 450/50 or
9:1.

Exactly correct, actually you can replace it with 1/2 electrical wave length
of anything including lampcord. That being said you should not use lamp cord
before someone has a cow.

>
>
> Ok, just to reiterate so I know I understand (and you can see if I
> don't), If I feed a 20 meter dipole cut for my favorite frequency, I
> can feed the radio with exactly 1/2 wave of 450 ohm feedline and it
> will match the radio? Of course, coax will make a better match (with
> less loss?)

No coax won't make a better match, a match is a match. The loss is lower on
the ladder line. The use of ladder line for a dipole designed for and used
on a single band probably doesent make a lot of sense. If you want to run an
80 meter dipole on all bands it is a must (sans a tuner). Look at it this
way 450 Ohms divided by 50 Ohms = 9 an 18:1 SWR at 450 ohms is only 2:1 at
50 ohms.
>
> Now, if I understand, the principle of the 130 foot dipole matching
> the rig is based on the length of 450 ohm twin-lead. The twin lead is
> always 1/2 WL long.

NO SEE MY OTHER REPLY

The coax and rig are 50 ohms, but according to
> the smith chart, the impedance of the various frequencies range from
> 20 to 100 ohms. This would make me wonder why I don't get the same
> impedances at my rig, or at least at my feed point of 50 ohm coax.

>
> Thanks

>
>
> --
> 73 for now
> Buck
> N4PGW

1203. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 03:24:04 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <obNre.54658$on1.13081@clgrps13>
Source record: 74919

"John Smith" <assemblywizard@gmail.com> wrote in message
news:3XHre.174$Hk1.13819026@news.sisna.com...
> Me:
>
> Oh really, so if part of the waveguide is made resonant at 800 MHz and I
> am striking it with a "1KW hammer" it will not "ring" at all? Funny, but
> that runs against all I have seen here in the real world...
>
> John

A waveguide can be considered a very wide bandpass filter. Any frequency coupled to the waveguide, within its pass-band, will appear at the output of the waveguide. There will be no spurious signals attributed to the waveguide. As mentioned previously; measurements I have made on microwave oven magnetrons indicate an extremely wideband, highly unstable signal, covering hundreds of MHz either side of the nominal 2.45 GHz. The potential for interference to other services, particularly the 2.4 GHz ISM band, and to a lesser extent, the 1.9 GHz cell frequencies, is fairly high. It is doubtful that any significant energy will be present at 800 MHz.

The relative spectral purity of the magnetron measured in http://www-personal.engin.umich.edu/~mcjz/papers/neculaes_tps04.pdf probably used a laboratory grade 4kV power supply. Note, however, that significant 120 MHz sidebands (and harmonics) are present.

Frank

1204. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 03:30:34 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <3dNre.99754$8S5.17796@bignews3.bellsouth.net>
Source record: 74920

Does the **light** work on the dashboard so you can see the speedometer ok ?

"John Smith" <assemblywizard@gmail.com> wrote in message
news:_sFre.158$E42.12818505@news.sisna.com...
> KAZeringue:
>
> I take it you mean that guy standing on the planet which I have been
> watching out the porthole window for over an hour--just checked the
> gauge again, says I am doing the speed of light--but I have began to
> wonder...
>
> Warmest regards,
> John
>
> "KAZeringue" <kazeringue@aol.com> wrote in message
> news:FFEre.6618$1u3.569513@twister.southeast.rr.com...
> > What happens....
> >
> > Relative to which frame of reference, and does it matter to
> > Schrodinger's cat?
> >
> > :)
> >
> > W4KAZ
> >
>
>

1205. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 03:44:06 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <LpNre.99906$8S5.10831@bignews3.bellsouth.net>
Source record: 74921

And what about ELI the ICE man ?
If you have a "L" then "E" leads "I", so I understand.
But suppose then you have another "L", and another, and another.
If "E" keeps leading "I" , then is "I" just slowing down for a cycle at the
"L" ?
-- in udder words - I'd druther keep the dummy load resistive *****
I wonder if that resistance wire in the toaster would work as a dummy load -
go ahead and try it - you can toast bread on the new dummy load.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:IJLre.217$GF6.15480927@news.sisna.com...
> Never mind, just dropped a so-239 on an old gallon can and wired it
> up--seems to work great, but haven't checked the swr on the outside of
> the can yet... <grin>
>
> John
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:dhKre.202$Dm4.14664776@news.sisna.com...
> >I need to come up with a dummy load for a 250+ watt xmitter.
> >
> > IF I take two 100 watt wire wound resistors in parallel (for 50 ohms)
> > and put them in a can full of silicone oil and feed it though an
> > L-Match should it work?
> >
> > Warmest regards,
> > John
> > --
> > Watching the cutting edge of yesterday replay--in virtual reality,
> > right before my eyes--in real time!
> > Thirty year old technology--wasn't it amazing?
> >
> >
>
>

1206. Re: 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 03:52:52 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <oCNre.3518$on5.487@newssvr19.news.prodigy.com>
Source record: 74922

Buck,
Why not use a tuner?
'Doc

1207. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 04:06:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m5ava15k588h9mh875e8jrm187fbi5j0k3@4ax.com>
Source record: 74923

On Tue, 14 Jun 2005 23:44:06 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>And what about ELI the ICE man ?

Hi Hal,

This is the mnemonic that we taught in the Navy.

>I wonder if that resistance wire in the toaster would work as a dummy load -
>go ahead and try it - you can toast bread on the new dummy load.

I've checked this out, and one element IS 50 Ohms! (Or so it was for
the one I bought for $5 at the thrift store to investigate just this
application.) It worked better for AC/DC than RF.

73's
Richard Clark, KB7QHC

1208. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 04:32:17 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qbOre.230$G_.17487933@news.sisna.com>
Source record: 74926

Hal:

It may radiate, it may have a high swr on the cable feeding it... I
just needed to dump 250 watts quickly and didn't have enough time to
construct a "dummy load antenna" everyone is so anxious to speak of
here...

besides, unless you have a damn 50 ohm resistor across your coax--you
only think that 50 ohm antenna load is all resistive!

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:LpNre.99906$8S5.10831@bignews3.bellsouth.net...
> And what about ELI the ICE man ?
> If you have a "L" then "E" leads "I", so I understand.
> But suppose then you have another "L", and another, and another.
> If "E" keeps leading "I" , then is "I" just slowing down for a cycle
> at the
> "L" ?
> -- in udder words - I'd druther keep the dummy load resistive *****
> I wonder if that resistance wire in the toaster would work as a dummy
> load -
> go ahead and try it - you can toast bread on the new dummy load.
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:IJLre.217$GF6.15480927@news.sisna.com...
>> Never mind, just dropped a so-239 on an old gallon can and wired it
>> up--seems to work great, but haven't checked the swr on the outside
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>> the can yet... <grin>
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>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:dhKre.202$Dm4.14664776@news.sisna.com...
>> >I need to come up with a dummy load for a 250+ watt xmitter.
>> >
>> > IF I take two 100 watt wire wound resistors in parallel (for 50
>> > ohms)
>> > and put them in a can full of silicone oil and feed it though an
>> > L-Match should it work?
>> >

>> > Warmest regards,
>> > John
>> > --
>> > Watching the cutting edge of yesterday replay--in virtual reality,
>> > right before my eyes--in real time!
>> > Thirty year old technology--wasn't it amazing?
>> >
>> >
>>
>>
>
>

1209. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 04:43:56 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <lmOre.232$wn1.17805451@news.sisna.com>
Source record: 74925

... if I was to attempt to jam that broad of range of freqs, I would couple it to a waveguide which exhibited resonance on that whole spectrum (feed the center of circular guide/"modified horn" with shortest point to edge of circle resonant at 2.4 ghz resonant, longest point to edge of circle resonant at 800 mhz) , feeding the magnetron a ramp or triangle dc voltage/current of 1 mhz freq--is going to generate harmonics until the cows come home... I would feel like Dr. Frankenstein when the neighbors showed up on my door step with their pitchforks and scythes!!!

Warmest regards,
John

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:obNre.54658$on1.13081@clgrps13...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:3XHre.174$Hk1.13819026@news.sisna.com...
>> Me:
>>
>> Oh really, so if part of the waveguide is made resonant at 800 MHz
>> and I am striking it with a "1KW hammer" it will not "ring" at all?
>> Funny, but that runs against all I have seen here in the real
>> world...
>>
>> John
>
> A waveguide can be considered a very wide bandpass filter. Any
> frequency coupled to the waveguide, within its pass-band, will appear
> at the output of the waveguide. There will be no spurious signals
> attributed to the waveguide. As mentioned previously; measurements I
> have made on microwave oven magnetrons indicate an extremely wideband,
> highly unstable signal, covering hundreds of MHz either side of the
> nominal 2.45 GHz. The potential for interference to other services,
> particularly the 2.4 GHz ISM band, and to a lesser extent, the 1.9 GHz
> cell frequencies, is fairly high. It is doubtful that any significant
> energy will be present at 800 MHz.
>
> The relative spectral purity of the magnetron measured in
> http://www-personal.engin.umich.edu/~mcjz/papers/neculaes_tps04.pdf
> probably used a laboratory grade 4kV power supply. Note, however,
> that significant 120 MHz sidebands (and harmonics) are present.
>
> Frank
>

1210. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 05:57:57 UTC
From: nm5k@wt.net
Message-ID: <1118815077.737943.118850@g49g2000cwa.googlegroups.com>
Source record: 74924

How is it possible to decide whether or not a choke or balun is
needed, and where to locate it, unless the magnitude of what one MIGHT
wish to prevent is known.

I don't know about wattage, but measuring the
damage that a lack of decoupling does to the antenna
is easy to measure. Quite simple. Try each way,
and note the difference on a stable signal. The ringo
ranger without the lower section lost 3-4 S units
worth of performance in my case, using my line length.
Ditto for any other antenna. I found the decoupling of
simple 1/4 GP's can be improved also. Many, "including me"
often state that once a GP is at say 1/2 wave high, that only
3-4 radials are needed. As far as ground losses, this is true.
But the decoupling from the line can be further improved by
adding even more radials. Going from 4 radials to 8 usually
makes a noticable difference on a receiver...I consider a
receiver as just an poorly calibrated voltage meter in this
case. It's plenty good enough for A/B comparisons.
At HF, I don't worry about feedline radiation too awful much.
If I'm not torching my lips, wanking out my keyer, or causing light
bulbs to flicker in time to my CW or voice, I'm a happy camper.
Not so on VHF/UHF....I consider it critical if you want the best
performance. And....All this was tested in the real world by yours
truly...Over 20 years ago...I've had plenty of time to change my
stance...But I haven't...MK

1211. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 06:13:03 UTC
From: Buck <iam@this.site>
Message-ID: <9mhva192pc5evqqu3ks5nkefi0tacj3drn@4ax.com>
Source record: 74927

On Wed, 15 Jun 2005 02:15:00 GMT, Russ <carlzomer@hotmail.com> wrote:

>On Tue, 14 Jun 2005 07:33:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
>wrote:
>
>>In a response to a CB antenna question on the rec.outdoors.rv-travel
>>someone posted a link to
>>
>>http://www.firestik.com/Tech_Docs/CBs_%26_RVs.htm
>>
>>Talk about snake oil salesmen.
>
>Wow, I didn't know that aluminium doesn't make a good ground plane! I
>quess all of those aluminium chassis are just no good! I especially
>liked the SWR explanation. I'm going to use it when next I teach an
>Extra class.
>
>R

Does anyone have any 'ground plane' coax? I can't seem to find any
for my antenna. The manufacturer didn't include the matching coax.

--
73 for now
Buck
N4PGW

1212. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 06:23:39 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <t3iva1lfiain47cdes24se1u46ii8cgefe@4ax.com>
Source record: 74928

On Tue, 14 Jun 2005 21:32:17 -0700, "John Smith" <assemblywizard@gmail.com>
wrote:

>Hal:
>
>It may radiate, it may have a high swr on the cable feeding it... I
>just needed to dump 250 watts quickly and didn't have enough time to
>construct a "dummy load antenna" everyone is so anxious to speak of
>here...
>
>besides, unless you have a damn 50 ohm resistor across your coax--you
>only think that 50 ohm antenna load is all resistive!
>
>Warmest regards,
>John

John, be extremely careful in playing around with exoctic dummy loads. If you
don't allow sufficient heat radiation your 'warm regards' may become overheated.

Walt, W2DU

1213. Re: 3/2 WL antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 06:26:37 UTC
From: Buck <iam@this.site>
Message-ID: <m1iva15ftbldj8k5u1a53t1ilt8e3djlr1@4ax.com>
Source record: 74929

On Wed, 15 Jun 2005 03:52:52 GMT, 'Doc <w5lz@cwis.net> wrote:

>Buck,
> Why not use a tuner?
> 'Doc

For some dumb reason, I prefer to have a 'switch and transmit'
operation. On the CHN, I have a dedicated antenna matched
specifically for the 20 meter net frequency. Right now I use the
tuner on the 40 meter net so I just switch between 40 and 20 meters.
I will eventually build a 40 meter dipole with the 20 hung under it so
I don't even have to switch when I change bands.

As a novice I used a 40 meter dipole that matched perfectly on 15
meters. I just modeled that antenna to see how it turned out on the
rig. This is how I came to see that one impedance matched both bands
perfectly. (perfectly being defined as low SWR across the desired
portion of the band.)

--
73 for now
Buck
N4PGW

1214. capacitance bridge sample rate v.s. noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 06:39:00 UTC
From: ipensive@yahoo.com
Message-ID: <1118817540.271158.175650@z14g2000cwz.googlegroups.com>
Source record: 74930

All,
I am trying to use a wheatstone capacitance bridge to measure a very special capacitor that will change value in some frequency. To be precise, the gap between the capacitor plates will shake back and forth in a known frequency. I need some knowledge about the noise and sample rate of the capicitance bridge, so that I know I got a good data. Any idea about what reference book I should read. Thank you.

UC Berkeley
Low temperature lab
LiHong Herman

1215. Re: capacitance bridge sample rate v.s. noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 07:15:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hlkva1dhv9bt8csmbklolrhubp5j5untbr@4ax.com>
Source record: 74931

On 14 Jun 2005 23:39:00 -0700, ipensive@yahoo.com wrote:
> I am trying to use a wheatstone capacitance bridge to measure a very
>special capacitor that will change value in some frequency. To be
>precise, the gap between the capacitor plates will shake back and forth
>in a known frequency. I need some knowledge about the noise and sample
>rate of the capicitance bridge, so that I know I got a good data. Any
>idea about what reference book I should read. Thank you.

Hi Herman

You working with Phonon Polaritons?

A Wheatstone Bridge is not the best capacitance measuring bridge,
however, you may not have that option. A bridge of any sort is not
sample rate limited, the detector (or indirectly the method of
excitation) is. By and large, a bridge is a linear device and if you
want to use it as a demodulator, then you want to run the source
frequency of the excitation at least ten times faster. Nyquist would
demand at least twice, but that is not very useful to run at the
ragged edge if you want "good data."

Depending upon this excitation frequency, the utility of the common
Wheatstone configuration may degrade. It all depends on what you
consider to be accuracy.

73's
Richard Clark, KB7QHC

1216. Re: capacitance bridge sample rate v.s. noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 07:38:54 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d2ea9$42afdb0f$97d55d24$24673@ALLTEL.NET>
Source record: 74932

Conect your special cap into an oscillator circuit and measure frequency change. A wheatstone bridge will have to be rebalanced with each change in capacitance.

I am assuming that your "special cap" will be moving a bit faster than you can balance; specifically since you mentioned frequency.

Once frequency is measured, you can calculate the capacitance. What is the range of your cap?

ipensive@yahoo.com> wrote in message
news:1118817540.271158.175650@z14g2000cwz.googlegroups.com...
> All,
> I am trying to use a wheatstone capacitance bridge to measure a very
> special capacitor that will change value in some frequency. To be
> precise, the gap between the capacitor plates will shake back and forth
> in a known frequency. I need some knowledge about the noise and sample
> rate of the capicitance bridge, so that I know I got a good data. Any
> idea about what reference book I should read. Thank you.
>
> UC Berkeley
> Low temperature lab
> LiHong Herman
>

1217. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 07:46:13 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3a422$42afdcc6$97d55d24$25140@ALLTEL.NET>
Source record: 74933

One wonders, with the new co-ed service, how they now teach the resistor color code :>)

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:m5ava15k588h9mh875e8jrm187fbi5j0k3@4ax.com...
> On Tue, 14 Jun 2005 23:44:06 -0400, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
> >And what about ELI the ICE man ?
>
> Hi Hal,
>
> This is the mnemonic that we taught in the Navy.
>
> >I wonder if that resistance wire in the toaster would work as a dummy load -
> >go ahead and try it - you can toast bread on the new dummy load.
>
> I've checked this out, and one element IS 50 Ohms! (Or so it was for
> the one I bought for $5 at the thrift store to investigate just this
> application.) It worked better for AC/DC than RF.
>
> 73's
> Richard Clark, KB7QHC

1218. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 07:46:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11avn7m7sh1oq96@corp.supernews.com>
Source record: 74934

Buck wrote:
>
> Thanks for the help, Wes. I will be looking for that additional
> thread. One of these days I'll get rich and famous and I can budget
> the cost of EZNEC and get the full copy. 20 elements is just not
> quite what I need for an antenna I am toying with in my mind.
>
> BTW, how closely does the program get the measurements for antennas?
> If I plot a dipole and EZNEC says the length should be 45 feet, will I
> need to trim the antenna to a different length or will it be within an
> inch or two?
>

I sure encourage Wes and anyone else to post his experience with agreement or disagreement between modeling and measurement. But I've gotten a pretty good overview from the comments I've gotten in 15 years of selling EZNEC and its predecessor. These include reports from a spectrum of users ranging from amateurs who've measured what they can with the tools they have available, to professional users who have exceptionally good measurement equipment and access to high quality test ranges.

With quite a handful of caveats, below, the program gives very accurate results(*). Here are the caveats.

First, the antenna has to be just like the model. By "just like", I mean that anything materially affecting the antenna has to be in the model. Radiating feedlines are one of the most common elements overlooked by amateurs. I've also seen cases where the test meter itself is large and close enough to the antenna to change its impedance very significantly, and correspondence wasn't achieved until the meter was added to the model. Also, most people don't appreciate how much effect another antenna (or other resonant conductor) can have, even when surprisingly far away.

Next are a handful of modeling traps. These include but aren't limited to making sure the model is within modeling guidelines (segmentation, choice of ground type, etc.), that the NEC engine isn't having any particular difficulty (average gain close to 1), and the model doesn't contain any features which are known to cause an error (e.g., connected wires of different diameters, particularly in a parsitic element). Serious geometry errors such as connecting a wire end to a segment midpoint on another wire appeared quite frequently in files sent to me by users, which prompted me to expend the considerable effort to develop a comprehensive geometry check for the EZNEC v. 4.0 release. But many

errors can still be made. It takes a fair amount of care, knowledge, and experience to gain a high degree of confidence that all these conditions are met.

Then, even when the model is correct, most people don't know just how difficult it is to make good measurements. Measurements made through feedline are subject to a host of errors including failure to account for the effect of even a small amount of loss, and line impedance that's different from its specification -- a very common situation. Measurements made without feedline often suffer from the effects of common mode current and the close proximity of the person making the measurements. And so forth.

All that being said, it's really not hard to make a very decent model of a simple antenna -- or even a fairly complex one. But there are too many things I can't know about your modeling ability, how well you've suppressed feedline current in the real antenna, and how you'll be deciding that the antenna "works" to know if it'll come out within an inch or two.

Based on past experience, some number of the readers will interpret what I've written to mean that it's impossible to make a good model, or that modeling doesn't give accurate results. Neither is true at all. But a careless model and casual measurement probably won't match very well, either.

So my advice is to cut the antenna a bit long. Only after *you* have built and measured a few can you gain (or not gain) confidence in the ability of *your* models to match *your* measurements.

(*) I can't and don't take credit for the accuracy of the program. That's solely due to its NEC calculating engine which was developed by others. I will take blame for any EZNEC results which differ from those given by NEC. Those would be bugs, and I'd appreciate very much if anyone seeing a difference would contact me so I can track it down and fix it.

Roy Lewallen, W7EL

1219. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 11:09:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b00d72$1_2@spool9-west.superfeed.net>
Source record: 74935

nm5k@wt.net wrote:
> I found the decoupling of
> simple 1/4 GP's can be improved also.

Quite often, one sees multiple turns of coax looped
under commercial elevated ground planes.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1220. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 12:26:50 UTC
From: Buck <iam@this.site>
Message-ID: <e770b15e708li8bhbjamrn22e760b8r72b@4ax.com>
Source record: 74936

Thanks for the reply and comments.

I have been enjoying my time playing around with the program. I have notice that an antenna cut, trimmed and tuned at one location often has a different dip in another.

As for the program, I would like to order the full version of eznec, but I can't possibly budget that in right now. Is there a similar program available without the 20 segment limit? I am thinking I saw one many months ago when I first tried playing with this one.

Thanks,

--
73 for now
Buck
N4PGW

1221. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 12:49:52 UTC
From: ik3umt <ik3umt@ir3ip.net>
Message-ID: <1118839792.872823.17760@f14g2000cwb.googlegroups.com>
Source record: 74937

thanks all, sincerely i'm working around raibeam modelling, but
argument seems other than easy !!
I'm scaling one home made to 7.1 MHz but only to duplicate dimensions
seems not the only one thing to do .....

Someone has tried ??

TNX

1222. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 13:04:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b0283e$1_2@spool9-west.superfeed.net>
Source record: 74938

ik3umt wrote:
> thanks all, sincerely i'm working around raibeam modelling, but
> argument seems other than easy !!
> I'm scaling one home made to 7.1 MHz but only to duplicate dimensions
> seems not the only one thing to do .....
>
> Someone has tried ??

Is a raibeam two driven elements with a phasing harness?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1223. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 13:48:36 UTC
From: Dan Richardson <k6mhe>
Message-ID: <hbc0b11ij1q3es1ruet69nmscj4b7jll8a@4ax.com>
Source record: 74939

On Wed, 15 Jun 2005 02:13:03 -0400, Buck <iam@this.site> wrote:

>Does anyone have any 'ground plane' coax? I can't seem to find any
>for my antenna. The manufacturer didn't include the matching coax.

Sure, just connect your coax to the antenna without a choke balun and
you've got it!

Danny, K6MHE

1224. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 14:05:55 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <7BWre.8285$L65.7719@trnddc05>
Source record: 74940

Cecil Moore wrote:
> ik3umt wrote:
>
>> thanks all, sincerely i'm working around raibeam modelling, but
>> argument seems other than easy !!
>> I'm scaling one home made to 7.1 MHz but only to duplicate dimensions
>> seems not the only one thing to do .....
>>
>> Someone has tried ??
>
>
> Is a raibeam two driven elements with a phasing harness?

According to an ARRL September, 1997, review of the Raibeam RB-206B (6 meters), it is a two-element HB9CV-type antenna. They go on to say

"In that design, two
dipole elements are driven out of phase
with respect to each other and closely
spaced."

The article footnote says

"For a description of the HB9CV mini-beam,
see the RSGB VHF UHF Manual (4th edition),
G. R. Jessop, G6JP, ed, pp 8.30 and
8.31."

Cheers,
John

1225. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 14:42:08 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <g4Xre.24479$So7.11092@fe10.lga>
Source record: 74941

Roy mentioned this patent a few years ago. I was fascinated and finally found it on the Patent Office web site. (Not a trivial task for someone who has never dealt with the patent office, but it may be easier now.)
It should be required reading for anyone who thinks Big Brother Knows Best. I assume it was submitted as a joke, or perhaps as a test. It certainly demonstrates that the patent process has become a joke, but anyone exposed to software patents knows this already.

Bill
W2WO

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11autue8013bg5b@corp.supernews.com...
> U.S. patent 6,025,810: "Hyper-Light-Speed Antenna", issued Feb. 15, 2000:
>
> "The present invention has discovered the apparent existence of a new
> dimension capable of acting as a medium for [RF] signals. Initial
> benefits of penetrating this new dimension include sending RF signals
> faster than the speed of light, extending the effective distance of RF
> transmitters at the same power radiated, penetrating known RF shielding
> devices, and accelerating plant growth exposed to the by-product energy
> of the RF transmissions."
>
> Snif. Kinda makes you all weepy and proud, doesn't it? Is this a great
> country, or what. Hope y'all got your flags out and wavin'.
>
> It's all there, at http://uspto.gov.
>
> Roy Lewallen, W7EL

1226. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 15:18:35 UTC
From: richardharrison@webtv.net
Message-ID: <18551-42B046CB-2@storefull-3256.bay.webtv.net>
Source record: 74942

Richard Clark wrote:
"---(it could have been Madonna)."

There was a famed A&M coed said to be sweet to all the faculty but rotten to the corps.

Best regards, Richard Harrison, KB5WZI

1227. Delusions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 15:28:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8phea$fp6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74943

When it comes to measurements, most amateurs and very many
professionals suffer from delusions of accuracy.

Making measurements is an ART rather than an engineering discipline.

ALL measurements are subject to error. Errors are distributed in
magnitude between trivial and catastrophic. Much of the art lies in
assessment of the magnitude of error and depends on the
measurement-makers' judgement and experience. Indeed, honesty is a
factor.

To gain support for the validity of a measurement result by stating
the manufacturer's name and serial number of the instrument used
doesn't carry much weight since accuracy depends on the person who
made the measurement and many other just as important factors. People
can't be avoided.

Something similar applies to numerical computer programs. The
reliability of a computer program depends on the programmer's
knowledge of the matter in hand and has nothing to do with the machine
it is running on. Far too much faith is placed on computed results
merely because they are computed.

Very little extra knowledge is gained by comparing a pair of computed
and measured results because there is no means of knowing how and from
where the inevitable difference arises.

Reliabilty and confidence of both programs and measurements require
time in which to accumulate. Mean time between estimated errors?

Reg, G4FGQ

1228. Re: Coax phasing delay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 15:28:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b04a16$1_1@spool9-west.superfeed.net>
Source record: 74944
Body handling: Binary attachment payload not displayed: phsdipst.EZ

John - KD5YI wrote:
> "In that design, two
> dipole elements are driven out of phase
> with respect to each other and closely
> spaced."

Thanks, John. Here's one from my EZNEC library that
probably qualifies.
--
73, Cecil http://www.qsl.net/w5dxp

[One or more binary attachments are retained only in the source text.]

1229. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 15:32:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b04b05$1_2@spool9-west.superfeed.net>
Source record: 74945

Bill Ogden wrote:

> Roy mentioned this patent a few years ago. I was fascinated and finally
> found it on the Patent Office web site. (Not a trivial task for someone who
> has never dealt with the patent office, but it may be easier now.)
> It should be required reading for anyone who thinks Big Brother Knows Best.
> I assume it was submitted as a joke, or perhaps as a test.

The Discovery Channel carried a program in which a faster-
than-light tunneling effect was alleged used to transfer music.
I heard the music with my own ears. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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1230. Re: Double Hula Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 15:50:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8piov$jb6$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74946

"Buck" <iam@this.site> wrote in message
news:06cua19c0d2pu5s6e8obu8bi08fgmdie31@4ax.com...
> >I was also on vacation recently and tried a quite
> >different type of antenna -- the "double hula."
> >
> >Basically I used each hula hoop as one arm of a
> >dipole, fed with 450 ohm ladder line, and energized
> >with an FT817 with 30w final amp. The antenna was up
> >approx. 16 ft.
> >
> >On each hoop was wound 30 feet of copper wire. When
> >the two hoops were mounted so that each was
> >perpendicular with the ground, and each the same
> >distance above the ground (kinda like a horizontal
> >dipole -- and both were in the same plane) -- I
> >connected the wire on each hula hoop so that it made a
> >continuous helical circle (with no break) to which I
> >connected each side of the ladder line () ()
> >
> >I loaded it with an Elecraft T1, obtaining a 1:1 SWR
> >on all bands 10-80m except for 17, 20 and 40m where
> >the SWR was between 1:1 and 1:2. Not too shabby. Had
> >contacts on the East Coast from Calif. on 20m.
> >
> >I tried a lot of other configurations, but the best
> >alternative was where the hula hoops were still
> >perpendicular to the ground but this time were one on
> >top the other in the same plane, and this time the
> >wire on the hula hoops wasn't continuous -- there was
> >a break in each one (at the points where the hoops
> >came closest together). So on each hoop the ladder
> >line was connected to one side of the break. Again I
> >had 1:1 SWR on all bands except 17, 30 and 40m where
> >the SWR was between 1:1 and 1:2 (using the T1). Had a
> >few contacts on 20m with this antenna as well.
> >
> >The downside was that I was running in and out of the
> >cabin so often to change the configs that I kept
> >hitting the metal roof with my head. There are now 3
> >nice healing cuts up there!
> >
> >I would love to have more time to see what lengths of
> >copper wire would work best with the hoops, and to see
> >how they'd perform at 50 ft. up. Also, to figure out

> >what their propagations patterns are.
> >
> >If they were used for pedestrian mobile, it's look
> >like the user had Mickey Mouse ears ....
> >
> >-- Bil Paul KD6JUI
>
==========

Without wishing to be too despondent, it appears you have proved the rule -almost anything will radiate. Interesting and well-described nevertheless!

Reg, G4FGQ

1231. Re: Delusions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 15:59:57 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4f43f$42b0507f$97d55d24$8924@ALLTEL.NET>
Source record: 74947

As we are fond of saying, "measure with a micrometer, mark with a crayola,
and cut with an axe"

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d8phea$fp6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> When it comes to measurements, most amateurs and very many
> professionals suffer from delusions of accuracy.
>

1232. BROADCASTDB - Live Radio and TV database : Just Added:

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 16:07:16 UTC
From: streaming@broadcastdb.com
Message-ID: <1118851636.953805.50970@o13g2000cwo.googlegroups.com>
Source record: 74948
Cross-posted to: fj.rec.radio,rec.radio.amateur.policy,rec.radio.amateur.antenna,rec.radio.shortwave,alt.music.france

BROADCASTDB - Live Radio and TV database : Just Added:

http://www.broadcastdb.com/

More than 7000 live radios and 750 live televisions.

New this week :

Listen:

Chimpsy Radio - Comedy/music. Original comedy/music featuring local
music from Orlando, FL - Florida/USA
footballstreams - Live Football on your PC - UK
Saint Tropez Web Radio - The Web Radio Of St Tropez - Various Music -
Saint Tropez/France
Paradox Room - Alternative - Different music. 21:00 gmt
Sunday/Tuesday/Thursday - South Wales, UK
- Saint Tropez/France
Radio Gibraltar - Also 92.6 and 100.5. Local Radio - Gibraltar

Watch: The latest micro-series from FTV: Shoot Me!

TV:

Faikham TV - Bangkok / Thailand
Prachinburi Internet TV - Bangkok / Thailand
HighSpeed - Multiple TV channels - Bangkok / Thailand
News1 - News - Bangkok / Thailand
Nation Channel - News - Bangkok / Thailand
Nation Biz 152K - News - Bangkok / Thailand
BTV 5 392K - News - Bangkok / Thailand
BTV 9 109K - News - Bangkok / Thailand
BTV 11 392K - Music, News - Bangkok / Thailand
BTV ITV 392K - News - Bangkok / Thailand
Kimeng 328K - Finance News - Bangkok / Thailand
T Channel 141K - Music videos - Bangkok / Thailand
UBCi News 197K - News - Bangkok / Thailand
UBCi Sports 197K - Sports - Bangkok / Thailand
Thailand's Next top model - Next top model channel - Bangkok /
Thailand
Thailand's Next top model - Next top model archive videos channel -
Bangkok / Thailand
UBCi Chic 197K - Fashion channel - Bangkok / Thailand
MTK 100K - Regional Program from Tarnow. - Poland
TOYA TV 166K - Local TV news channel.
TV Biznes - News and Business TV from Poland - Poland

TV Fly - Internet TV station with pop and hip hop video clips - Poland
Christ Embassy Church - Just watch this station and you will enjoy
it...

http://www.broadcastdb.com - The world's broadcast database

Online guide of radio and TV worldwide - "BROADCASTDB"

Radios, TV, News, radios from all over the world !
A Database of all Live stations on Internet.

1233. Re: Delusions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 16:14:16 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11b0kubtp452f10@corp.supernews.com>
Source record: 74949

Reg Edwards wrote:

-snip-
>
> To gain support for the validity of a measurement result by stating
> the manufacturer's name and serial number of the instrument used
> doesn't carry much weight since accuracy depends on the person who
> made the measurement and many other just as important factors. People
> can't be avoided.
>
-snip-

I was taught to record ID information of all the tools and instruments used, but I always took that to mean that it was to keep track of what things to check if anomolies cropped up.

Having said that, if someone gives me a 5-digit voltage reading taken by a 3-1/2 digit Rat Shack meter I'll believe it much less that if the reading is taken by a recently calibrated name-brand 5-digit meter (and I won't believe it much at any rate -- 5-digit voltage measurements have _lots_ of embedded voodoo).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1234. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 16:15:23 UTC
From: richardharrison@webtv.net
Message-ID: <16275-42B0541B-58@storefull-3252.bay.webtv.net>
Source record: 74951

Cecil Moore wrote:
"Texas A&M custom edition".

My college text was by Shortley & Williams too, but it had no maroon T on the cover.

There`s a story about a fellow telling a store clerk that he wanted a complete outfit of clothes, head to toe, all in maroon. The clerk responded:"So you`re an Aggie?" Fellow replies:"Guess it`s obvious because I want all these maroon clothes?" Clerk says: "No, it`s obvious because this is a hardware store!"

ONLY KIDDING.

Best regards, Richard Harrison, KB5WZI

1235. Re: Delusions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 16:23:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <BCYre.21$ts7.664705@news.sisna.com>
Source record: 74950

Reg:

When ever you see charts being drug out and used as the basis for what one is doing--you know you are in trouble.

Either the underlying laws and mathematical functions of that in question are severely lacking--or the people you are dealing with do not have the necessary skill--usually the former... here in radio you find a lot of the latter...

From the abundance of charts laying around--I'd say there is still about 1/2 not known!

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d8phea$fp6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> When it comes to measurements, most amateurs and very many
> professionals suffer from delusions of accuracy.
>
> Making measurements is an ART rather than an engineering discipline.
>
> ALL measurements are subject to error. Errors are distributed in
> magnitude between trivial and catastrophic. Much of the art lies in
> assessment of the magnitude of error and depends on the
> measurement-makers' judgement and experience. Indeed, honesty is a
> factor.
>
> To gain support for the validity of a measurement result by stating
> the manufacturer's name and serial number of the instrument used
> doesn't carry much weight since accuracy depends on the person who
> made the measurement and many other just as important factors. People
> can't be avoided.
>
> Something similar applies to numerical computer programs. The
> reliability of a computer program depends on the programmer's
> knowledge of the matter in hand and has nothing to do with the machine
> it is running on. Far too much faith is placed on computed results
> merely because they are computed.
>
> Very little extra knowledge is gained by comparing a pair of computed
> and measured results because there is no means of knowing how and from
> where the inevitable difference arises.
>
> Reliabilty and confidence of both programs and measurements require

> time in which to accumulate. Mean time between estimated errors?
> ----
> Reg, G4FGQ
>
>

1236. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 16:33:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ljf0b1h29hmaf2h60jrre1u1u19snkiutk@4ax.com>
Source record: 74952

On Wed, 15 Jun 2005 03:46:13 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>One wonders, with the new co-ed service, how they now teach the resistor
>color code :>)
>
We had wave ETs back then too. So as to balance the sexual
connotation:

Batman
B***s
Robin
On
Yonder
Gotham
Bridge
Very
Good
Work
Get
Superman
Next

There was also the left hand rule, MFC, which I won't go into here,
and a Mnemonic phrase for the characteristics of all Transistor
amplifier configurations: Azaza VoPiNi lives in the house of BEC (or
something similar to that effect). This was not part of the common
lore, but rather a legacy of some inventive mind. Inventive, I say,
because it was more trouble than simply remembering the
characteristics (the Mnemonic involves building a 3 X 3 table). And
of course we had Eli the Iceman, as has been already offered here for
reactive phase relationships.

73's
Richard Clark, KB7QHC

1237. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 16:45:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3em0b11glihdfi4keb3l4hadtbfq2bts25@4ax.com>
Source record: 74953

On Wed, 15 Jun 2005 09:33:19 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>>One wonders, with the new co-ed service, how they now teach the resistor
>>color code :>)
>>
>We had wave ETs back then too. So as to balance the sexual
>connotation:

Well back into a non-PC mnemonic for trigonometric identities:

Sally Could Tell Oscar Had A Hard On Always

O
S = ---
H

A
C = ---
H

O
T = ---
A

S, Sine (of angle of interest)
C, Cosine (of angle of interest)
T, Tangent (of angle of interest)
O, Opposite (side opposite from angle of interest)
H, Hypotenuses (longest side, next to angle of interest)
A, Adjacent (side next to angle of interest)

1238. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 17:02:00 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <faZre.26$OI1.862269@news.sisna.com>
Source record: 74954

Bill:

Right now nothing seems to make sense... and it does appear if a general "uprising" approaches...

One example is where the clear majority of voters approves a law and/or revision to a law--and a court overturns it...
... or ...
When clearly the majority wish one outcome, they communicate that to their representative--yet their public servant goes on and votes against their wishes...

We just need a method to make them back responsible to us...

John

"Bill Turner" <noway@nohow.com> wrote in message news:s3m0b11fmbilmifp4ov9thtipnf51tlkb1@4ax.com...
> On Tue, 14 Jun 2005 19:48:04 GMT, Bob Miller <NOSPAM@neosoft.com>
> wrote:
>
>>Amendments V and VI describe a process that would be meaningless
>>unless one is presumed innocent until proven otherwise.
>
> ____
>
> If OJ was "presumed innocent until proven guilty", why was he kept in
> jail for one whole year before and during his trial? Do we lock up
> people who are "presumed innocent"?
>
> The concept is deeply embedded in American beliefs, but in reality, it
> does not seem to exist.
>
> --
> Bill, W6WRT
>

1239. Re: capacitance bridge sample rate v.s. noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 17:20:12 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1118856012.237335.239790@g47g2000cwa.googlegroups.com>
Source record: 74955

At what frequency do you expect the plates to move? Is the motion a result of external forces, or of electrostatic forces caused by charge on the plates of the capacitor? What is the capacitance? Is the Q reasonably high? Is the leakage resistance very high? Answers to those questions may influence how you make the measurement.

I think Fred's idea of including the capacitor as a frequency control element in an oscillator is a good one. You can feed the oscillator output to an FM demodulator, or perhaps even use counting techniques to monitor the period of the waveform generated. It's possible to digitally demodulate quite accurately.

Another idea: use the capacitance like a capacitor microphone. That is, if the capacitance has very good insulation resistance, put a charge on it, and note that i=C*dv/dt+v*dC/dt; if i=0 (or very nearly so), then dv/dt= -(v/C)*dC/dt. (Alternatively, q=C*V.) If the frequency is high compared with 1/(R*C), where C is the nominal capacitance and R is the net leakage resistance, then i is practically zero. Research capacitor microphone circuits for further ideas.

Normally a bridge with a capacitor in one arm is not called a Wheatstone bridge...there are many different capacitor bridge circuits. See, for example, "Reference Data for Engineers" pub. by H. Sams for a chapter on bridge circuits and measurements.

If these ideas are not enough for you, do a search of journals. I'd especially recommend "Review of Scientific Instruments," which over the years has published myriad ways of measuring about any physical quantity you can think of. And if you come up with a new way, consider submitting it to them.

Cheers,
Tom

1240. Re: Thin-Film Example

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 17:27:55 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a3163$42b0651d$97d55d24$16391@ALLTEL.NET>
Source record: 74956

Aggie and a West point grad are dining together. The Aggie opines that his table mate must have attended West Point. "Why, yes I did, how did you know?" .

The Aggie replied "Your impeccable table manners, your manner of dress, and refinement of speech".

The West point grad then states "I see your an Aggie".

The Aggie puffs up with pride and expecting like accolades asks "How did you know?"

"I saw your ring while you were picking your nose during dessert"

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:16275-42B0541B-58@storefull-3252.bay.webtv.net...
> Cecil Moore wrote:
> "Texas A&M custom edition".
>
> My college text was by Shortley & Williams too, but it had no maroon T
> on the cover.
>
> There`s a story about a fellow telling a store clerk that he wanted a
> complete outfit of clothes, head to toe, all in maroon. The clerk
> responded:"So you`re an Aggie?" Fellow replies:"Guess it`s obvious
> because I want all these maroon clothes?" Clerk says: "No, it`s obvious
> because this is a hardware store!"
>
> ONLY KIDDING.
>
> Best regards, Richard Harrison, KB5WZI
>

1241. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 17:34:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3ad63$42b066af$97d55d24$16570@ALLTEL.NET>
Source record: 74957

Ah yes the famous Mary. And another that has served me well, Oscar Had A Hunk Of Ass

I refuse to replace bad boys with Batman for the sake of political correctness. :>) Brings back memories. I was an FTC before attending NESEP.

My Navy electronics training taught me a heck of a lot more than my EE degree.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:ljf0b1h29hmaf2h60jrre1u1u19snkiutk@4ax.com...
> On Wed, 15 Jun 2005 03:46:13 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >One wonders, with the new co-ed service, how they now teach the resistor
> >color code :>)
> >
> We had wave ETs back then too. So as to balance the sexual
> connotation:
>
> Batman
> B***s
> Robin
> On
> Yonder
> Gotham
> Bridge
> Very
> Good
> Work
> Get
> Superman
> Next
>
> There was also the left hand rule, MFC, which I won't go into here,
> and a Mnemonic phrase for the characteristics of all Transistor
> amplifier configurations: Azaza VoPiNi lives in the house of BEC (or
> something similar to that effect). This was not part of the common
> lore, but rather a legacy of some inventive mind. Inventive, I say,
> because it was more trouble than simply remembering the
> characteristics (the Mnemonic involves building a 3 X 3 table). And
> of course we had Eli the Iceman, as has been already offered here for
> reactive phase relationships.
>
> 73's

> Richard Clark, KB7QHC

1242. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 18:06:55 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <37_re.49668$wr.42366@clgrps12>
Source record: 74958

"John Smith" <assemblywizard@gmail.com> wrote in message
news:lmOre.232$wn1.17805451@news.sisna.com...
> ... if I was to attempt to jam that broad of range of freqs, I would
> couple it to a waveguide which exhibited resonance on that whole spectrum
> (feed the center of circular guide/"modified horn" with shortest point to
> edge of circle resonant at 2.4 ghz resonant, longest point to edge of
> circle resonant at 800 mhz) , feeding the magnetron a ramp or triangle dc
> voltage/current of 1 mhz freq--is going to generate harmonics until the
> cows come home... I would feel like Dr. Frankenstein when the neighbors
> showed up on my door step with their pitchforks and scythes!!!
>
> Warmest regards,
> John

Not sure how the magnetron would respond to a ramp, but at some amplitude the magnetron would cease oscillations. The fact is that the harmonic decay of a sawtooth waveform is slightly higher than a rectangular pulse. A worst case analysis would involve a rectangular pulse with a finite rise/fall time. If for example the magnetron were pulsed with a square wave, 50% duty cycle, at 1 MHz, with a rise time of 10nS, the 1,600 th harmonic (i.e. lower sideband at 800 MHz) amplitude is about -50 dBC. This result is obtained from the solution of the products of two Sa(x) functions involving the rise time, period, and pulse width of a symmetrical trapezoidal waveform. If you have a burning desire to know, I can vary the parameters of rise time, pulse width, etc. to see how the spectral shape changes.

These sidebands, in the vicinity of 800 MHz, are therfore of significant amplitude. I am, however, fairly certain that 800 MHz is below the waveguide cut-off frequency. I will try and measure the dimensions of a typical oven waveguide to determine its cut-off frequency. The other factor is the Q of the magnetron cavities how would this effect the banwidth of the spectrum? Since the magnetron is coupled to the waveguide from a probe in one of its cavities, I would think that the higher sidebands would be significantly reduced. Possibly you have made measurements on such a system.

The math, at least, does indicate the potential of building a very wide band jammer -- probably not a good idea!

73,

Frank

1243. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 18:25:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Do_re.31$rX5.512151@news.sisna.com>
Source record: 74960

... no need, I have seen the results of such devices in practical
operation...

I do a class at the jr. college here, have 3 sons in the computer field,
my garage is a clubhouse/wireless point/computer lab...

... lot of cs/electronics majors... they have fired up such devices
before I said, "Not here!!!"

Really got pissed when it jammed my "late night talk radio" which I fall
asleep to...

Warmest regards,
John

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:37_re.49668$wr.42366@clgrps12...
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:lmOre.232$wn1.17805451@news.sisna.com...
>> ... if I was to attempt to jam that broad of range of freqs, I would
>> couple it to a waveguide which exhibited resonance on that whole
>> spectrum (feed the center of circular guide/"modified horn" with
>> shortest point to edge of circle resonant at 2.4 ghz resonant,
>> longest point to edge of circle resonant at 800 mhz) , feeding the
>> magnetron a ramp or triangle dc voltage/current of 1 mhz freq--is
>> going to generate harmonics until the cows come home... I would feel
>> like Dr. Frankenstein when the neighbors showed up on my door step
>> with their pitchforks and scythes!!!
>>
>> Warmest regards,
>> John
>
> Not sure how the magnetron would respond to a ramp, but at some
> amplitude the magnetron would cease oscillations. The fact is that
> the harmonic decay of a sawtooth waveform is slightly higher than a
> rectangular pulse. A worst case analysis would involve a rectangular
> pulse with a finite rise/fall time. If for example the magnetron were
> pulsed with a square wave, 50% duty cycle, at 1 MHz, with a rise time
> of 10nS, the 1,600 th harmonic (i.e. lower sideband at 800 MHz)
> amplitude is about -50 dBC. This result is obtained from the solution
> of the products of two Sa(x) functions involving the rise time,
> period, and pulse width of a symmetrical trapezoidal waveform. If you
> have a burning desire to know, I can vary the parameters of rise time,
> pulse width, etc. to see how the spectral shape changes.
>
> These sidebands, in the vicinity of 800 MHz, are therfore of

> significant amplitude. I am, however, fairly certain that 800 MHz is
> below the waveguide cut-off frequency. I will try and measure the
> dimensions of a typical oven waveguide to determine its cut-off
> frequency. The other factor is the Q of the magnetron cavities how
> would this effect the banwidth of the spectrum? Since the magnetron
> is coupled to the waveguide from a probe in one of its cavities, I
> would think that the higher sidebands would be significantly reduced.
> Possibly you have made measurements on such a system.
>
> The math, at least, does indicate the potential of building a very
> wide band jammer -- probably not a good idea!
>
> 73,
>
> Frank
>
>

1244. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 18:33:00 UTC
From: "mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com>
Message-ID: <1118860380.458418.307770@o13g2000cwo.googlegroups.com>
Source record: 74959

Thank you again for your replies.

I agree with your assessment that much of our (company's) internal (operational) systems may be considered "broken" by virtue of current circumstance. Unfortunately (or perhaps fortunately depending on ones point of view), I am not in a position to have any real effect in matters I am not paid to have an opinion on.

However, regarding the communications amongst the 40 or so busses I can have a positive effect on, there may be some positive contributions I can make. I have recently learned that our mechanic has been the one to install the radios, coax, and antennas all along.

The way the (broken) system apparently works:

Barn gets new bus in.
Manager asks for permission to buy new radio for new bus.
Uppon approval, manager orders new radio system (radio, coax, antenna, hardware, etc.), from local company.
Mechanic installs new radio into new bus.
Everyone hopes for the best.

In the course of conversation with our mechanic this morning on the matter, I learned that he has mounted a number of the antennas on a part of the bus that is fiberglass. I tried to explain a bit about ground-plane to him and the need for the antennas to be mounted on a metal part of the bus. I' am having him take one of the "worst" communicating busses and move the antenna to a metal part of the bus. I am also having him go through all the contacts and connections and cleaning them. I'll post what was done and what the results have been.

Thanks again for your help!

Mike

1245. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 18:49:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b0u2cn13ies5d@corp.supernews.com>
Source record: 74961

Buck wrote:
> Thanks for the reply and comments.
>
> I have been enjoying my time playing around with the program. I have
> notice that an antenna cut, trimmed and tuned at one location often
> has a different dip in another.
>
> As for the program, I would like to order the full version of eznec,
> but I can't possibly budget that in right now. Is there a similar
> program available without the 20 segment limit? I am thinking I saw
> one many months ago when I first tried playing with this one.
>
> Thanks,

EZNEC-ARRL, a type of EZNEC v. 3.0, is included with the 20th Edition of the ARRL Antenna Book. It has a 500 segment limit when analyzing any of the several hundred EZNEC models included with the Antenna Book. You can modify any of those models and retain the 500 segment limit. However, if you save a modified model and open it again, the program will revert to the 20 segments of the demo version, since the saved file isn't one of the special ARRL files which relieve the segment limit. (Incidentally, all those several hundred models are recognized by standard EZNEC programs as ordinary EZNEC files, for those of you who have the standard program.)

There are several other programs available which have higher segment limits that are free. A web search and/or recommendations from other people should lead you to some of them. NEC-2 itself is free and available on the web, although you'll probably find it relatively difficult to use.

Roy Lewallen, W7EL

1246. Re: AIPAC spies, HAARP and NIF beams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:04:40 UTC
From: Foreskin Fungus <foreskin_fungus@yahoo.com>
Message-ID: <1118862280.127061.317030@g14g2000cwa.googlegroups.com>
Source record: 74962
Cross-posted to: rec.radio.amateur.antenna,sci.military.naval,us.military,alt.politics.republican,alt.conspiracy

June 20, 2005 Issue
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State of the State Secrets

Larry Franklin wanted to sway policy, not just spill intel.

by Justin Raimondo

The circumstances surrounding the arrest of Pentagon analyst Lawrence A. Franklin for passing classified information to two employees of the American Israel Public Affairs Committee (AIPAC) would make a good thriller. Acted out against a backdrop of war and terrorism, it's a cloak-and-dagger tale swathed in mystery, pregnant with political implications, and hinting at a subtext of hostility beneath the "special relationship" binding the U.S. to Israel. It has all the elements of good fiction-a strong plot, a fascinating set of characters, and a theme that will have the audience buzzing long after they leave the theater. Better yet, it looks like the dramatic climax will come in the form of a courtroom drama in a legal battle pitting the watchdogs of America's vital secrets against a shadowy fifth column.

For years the FBI's counterintelligence unit has been tracking a major espionage cell operating on behalf of Israel. Franklin stumbled into it one summer day in 2003, when he showed up at Tivoli restaurant outside Washington and met with two AIPAC officials-Steve Rosen, AIPAC's longtime foreign-policy director, and Keith Weissman, AIPAC's top Iran specialist. Franklin, described by his colleagues as a naïve ideologue who, as Ha'aretz put it, "believes wholeheartedly in the neo-conservative approach," revealed classified information about possible Iranian-sponsored attacks on U.S. forces in Iraq. Franklin was apparently worried that U.S. policymakers were insufficiently alarmed over the alleged Iranian threat to our interests in Iraq and was looking to enlist AIPAC-and the Israeli government-in pressuring policymakers to take a harder line on Tehran.

What he didn't know, as he spilled U.S. secrets, was that the FBI was recording his every word. It would be a while before he found out. Until then, he was watched, his phone conversations were recorded, and agents observed him trying to pass classified documents to an individual already under surveillance. However, as Newsweek described it, the unidentified Israeli spy was "too smart" for that, and insisted Franklin relate the information verbally.

An analyst with the Defense Intelligence Agency, Franklin served in the Air Force Reserve and did several tours of duty attached to the U.S. embassy in Tel Aviv. As Iran desk officer with the Defense Undersecretary for Policy, Near East South Asia, Franklin later moved to Douglas Feith's Office of Special Plans (OSP), where he and his fellow neocons cooked the intelligence on Iraq according to Ahmad Chalabi's special recipe and then served it up piping hot to Dick Cheney's boys, who delivered it straight to the White House. As Seymour Hersh relates, they called themselves "the Cabal"-a bit of self-mockery that, in retrospect, seems all too descriptive. OSP functioned, in effect, as a parallel intelligence agency. Its mission was to bypass the CIA, the DIA, and the mainline intelligence community and give the War Party the answers they wanted. The cabalists did not limit their activities to writing up talking points, however, but also engaged in field operations that caught the attention of the State Department and the CIA.

In December 2001, Franklin, along with Harold Rhode, a Middle East expert and Franklin's colleague in Feith's policy shop, and neoconservative writer Michael Ledeen-at the time working for Feith as a consultant-met with the infamous Manucher Ghorbanifar, of Iran-Contra fame, and a group of Iranians, including a former high official of the Iranian Revolutionary Guard. Also in attendance: Nicolo Pollari, head of the Italian intelligence service, and Italian Defense Minister Antonio Martino. As writer Laura Rozen tells it, "Ghorbanifar told me he has had fifty meetings with Michael Ledeen since September 11th, and that he has given Ledeen '4,000 to 5,000 pages of sensitive documents' concerning Iran, Iraq and the Middle East, 'material no one else has received.'"

In trying to discover how Iran had gotten its hands on vital U.S. secrets, including information on how the U.S. was eavesdropping on the Iranian government's encrypted internal communications, the FBI must surely have taken some interest in these activities. Their chief suspect, after all, was Chalabi, whose Iraqi National Congress supplied much of the grist for the OSP's mill.

A raid on Chalabi's Baghdad headquarters brought the whole affair into the open, and the Chalabi investigation has reared its head again in the Franklin affair. The Washington Post reports that the initial stage of the inquiry into Chalabi's activities as a double agent "focused on the activities of a US military reservist who was serving at the US Embassy in Israel."

When the FBI confronted Franklin and searched his home and office-turning up 83 classified documents, spanning three decades-he agreed, at first, to help the investigation, presumably in return for a promise of leniency. By some accounts, notably those by pro-AIPAC writer Edwin Black, Franklin agreed to make a series of monitored phone calls to suspects in the investigation, including neoconservative supporters of Chalabi. They also supposedly planted information via Franklin that Israeli agents operating in the Kurdish

area of northern Iraq were in danger of assassination by Iranian agents. The Jewish Telegraphic Agency reports that Franklin met with Weissman on July 21, 2004 outside Nordstrom's at the Pentagon City mall in Arlington and warned him about Israel's Kurdish problem. Alarmed, Weissman and Rosen passed this on to AIPAC, which raised the matter in meetings with NSC official Eliot Abrams. They also called Naor Gilon, top political officer at the Israeli embassy. This was followed shortly afterward by the FBI's first raid on AIPAC's Washington headquarters. (They would return four months later.)

=========

take a break from the nefarious anti-American intrigues of AIPAC terrorizing American liberties and security and look at the new hi tech weapons ["non lethal"] that Israel bought from black ops DIA zionists in the Pentagon and will use this August against the hapless Palestinians ...

Israel May Use Sound Weapon on Settlers

ISRAEL TO USE HAARP and GWEN mode MICROWAVE NON LETHAL WEAPONS ON PALESTINIANS WHEN THEY CRACK DOWN ON THE WEST BANK AND GAZA STRIP THIS AUGUST ...

...in a pre-arranged ousting of the legal occupants of the area, the indigenous yet beleagured Palestinians, ... Sharon will say it is to protect the illegal Hassidic settlers pouring for decades into the region from Brooklyn and Montreal and the Crimea/Ukraine region....

By AMY TEIBEL
Associated Press Writer

June 10, 2005, 12:50 PM EDT

JERUSALEM -- Israel is considering using an unusual new weapon against unwanted settlers who resist this summer's Gaza Strip occupation -- a device that emits penetrating bursts of sound that leaves targets reeling with dizziness and nausea.

Security forces could employ the weapon to overcome resistance without resorting to force, their paramount aim. But experts warn that the effects of prolonged exposure are unknown.

The army employed the new device, which it dubbed "The Scream," at a recent violent demonstration by Palestinians and Jewish sympathizers against Israel's West Bank separation barrier.

Protesters covered their ears and grabbed their heads, overcome by dizziness and nausea, after the vehicle-mounted device began sending out bursts of audible, but not loud, sound at intervals of about 10 seconds. An Associated Press photographer at the scene said that even after he covered his ears, he continued to hear the sound ringing in his head.

A military official said the device emits a special frequency that targets the inner ear. Exposure for several minutes at close range could cause auditory damage, but the noise is too intolerable for people to remain in the area for that long, he said.

Another official, also speaking on condition of anonymity because of his sensitive position, said the device hasn't been tested on subjects for hours at a time, so he couldn't discuss effects from prolonged exposure.

He said there was no direct connection between the recent introduction of "The Scream" and the forcible removal of settlers who resist evacuation orders, which is to begin in mid-August. But he didn't rule out the possibility of using it to root out settlers if persuasion fails.

The other official said "The Scream" could be used if protesters march on Gaza settlements or take up military positions.

"The whole issue of non-lethal is viewed from a desire not to get into a situation where soldiers are in distress and the consequences would be harsher than expected," he explained.

He said the military is still evaluating the device's debut performance in the field.

John Pike, director of the GlobalSecurity.org think tank in Alexandria, Va., said he believed last Friday's demonstration was the first case of such technology making it out of the laboratory and into the field. He said the U.S. and possibly China and Russia are developing acoustic weapons.

"I'm not aware of any other agency that is actively using it at this point," Pike said.

The military offered few details on the device, but Pike said he assumed it worked on very low frequencies that set off resonance in the inner ear. He said he was unaware of potential damage besides possible hearing loss.

Though the military refused to comment, Pike said the device probably sends its sound waves out in a specific direction, protecting the soldiers behind it.

"Most governments don't face large-scale demonstrations with a potential for lethal violence," he said. "So I think I would look to Israeli security forces to be an innovator in the non-lethal arena, simply because of the unique challenges it faces in the crowd control arena."

The military officials said Israel is constantly trying to bring new non-lethal weapons into the field but wouldn't disclose details. Its current arsenal includes tear gas as well as rubber-coated steel bullets, which have caused dozens of Palestinian fatalities.

Critics say Israel, with all its military technology savvy, should have done more in the years since the first Palestinian uprising began in 1987 to develop non-lethal weapons for use against hostile Palestinian masses.

Troops often turn to live fire, sometimes against teenage Palestinian stone-throwers. Police, too, used deadly force in October 2000 to put down rioting by Israeli Arabs at the start of the second Palestinian uprising. Thirteen Israeli Arabs were killed in those riots, and a commission of inquiry found that police used excessive force.

Israel's B'Tselem human rights group says Israeli security officers don't come equipped to police protests. "Although they could have anticipated they would have to disperse crowds, they didn't equip themselves with non-lethal means," spokeswoman Sarit Michaeli said.

Weapons they do have, such as rubber-coated bullets, are misused -- fired, for example, at too close a range, Michaeli said. The rubber-coated bullets can be lethal from close range.

Pike said the reason there aren't more non-lethal weapons available worldwide is because it is difficult to achieve both safety and effectiveness.

"The number of things that are genuinely effective at crowd control and substantially less lethal than lethal weapons -- it's a pretty short list," he said.

Weapons like pepper gas wouldn't put off a determined crowd, Pike said. Something like sticky foam might keep people out of a building, "but if I'm talking about controlling a mob in a city square, it just doesn't enter into play," he said.

Israel's past efforts to develop non-lethal crowd dispersal weapons included a gravel-spewing machine introduced and quickly abandoned during the first Palestinian uprising.

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... back to Larry Franklin and his merry men of Sion and Carlyle Group ...

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Whoever leaked details of the case to CBS News, including Franklin's identity, nixed the FBI's efforts to trace the transfer of sensitive materials from the spy nest embedded in our government to Israeli officials. FBI officials were furious: the leaker had effectively sabotaged their investigation, at least for the moment. Franklin stopped co-operating with the authorities, dismissed his court-appointed lawyer, and hired the high-priced law firm of Plato Cacheris.

The recent kickstarting of the prosecution, however, has seen a sea change in AIPAC's defense strategy. Rosen and Weissman have been handed their walking papers, and AIPAC is backpedaling furiously on its previous statements denying any wrongdoing by its employees, although the group is still paying the duo's legal bills. JTA reports indicate they are both to be indicted shortly, and Rosen anticipates the trial may begin as early as January 2006. He has pledged to fight the charges.

When this case comes to trial, it won't be only three spies for Israel who stand accused: the whole nexus of organizations and interests that came together in the War Party will be put in the dock.

When Franklin walked in unexpectedly on that luncheon meeting, he stumbled onto one of the biggest, most far-reaching espionage investigations since the Cold War. The crime committed in this case involves not only the theft of vital U.S. secrets but a concerted effort to influence American foreign policy on behalf of a foreign power. This is indicated, for one example, by the FBI's recent interrogation of Uzi Arad, formerly director of research for the Mossad and now head of the Institute for Policy and Strategy at Israel's Herzliya Interdisciplinary Center. According to The Forward, the FBI wanted to know why he had sent Franklin a research paper by Eran Lerman on how to re-invigorate America's relationship with Israel. Lerman, a former IDF intelligence officer, is the executive director of the American Jewish Committee's office in Israel. They also asked Arad about two conversations he had with Franklin: one at the December 2004 Herzliya Conference, which Franklin attended, and the other in the Pentagon cafeteria.

The Lerman paper argues that the U.S.-Israeli "special relationship" has fallen into "maintenance mode" in recent times and that America's grand democratization project in the Middle East calls for what Lerman dubs "the Special Relations Initiative of 2005." Whether this more assertive policy includes such activities as spying is a matter for conjecture, but the FBI's interest in a top AJC official shows that the scandal is widening.

It is also embracing more than lobbying groups like AIPAC and the AJC. The affidavit supporting Franklin's arrest noted that Franklin may have disclosed classified information to reporters, and the New York Times reports that federal agents have begun questioning journalists who may have written articles based on Franklin's revelations-the Times puts the number so far at four, "among them at least one newspaper journalist and others whose work has been published on the Internet." The JTA has named the newspaper reporter: Glenn Kessler, the State Department correspondent for the Washington Post.

The FBI is said to have taped a July 21, 2004 conversation that Weissman and Rosen had with Kessler. According to the JTA report, they joked about "not getting in trouble" over the exchange of information. "At least we have no Official Secrets Act," said Rosen, referring to laws on the books in Britain and elsewhere

prohibiting receipt of classified information. The joke, however, is on them. If the prosecution proves that they knew they were passing on classified information, including to an official of a foreign nation, they could wind up in the next cell over from Jonathan Pollard.

AIPAC's defenders lamely claim "mishandling" classified information is not the same as espionage. Franklin is charged with violating Title 18, Section 793(d) of the Espionage Act, which makes it a crime to pass to unauthorized persons "information the possessor has reason to believe could be used to the injury of the United States or to the advantage of any foreign nation." But Rosen and Weissman, who handed over classified information to Gilon, could face charges under Section 794, which carries a punishment of either death or life imprisonment for the crime of communicating information relating to the national defense "to any foreign government." According to a report in the New York Sun, the charges are so classified that AIPAC lawyer, Nathan Lewis, was required to get a security clearance to hear them.

The mystery at the heart of this investigation is how and when it began. Warren Strobel of Knight Ridder reported in 2004 that the probe "has been going on for more than two years," and UPI's Richard Sale cites a "former senior U.S. government official" as saying, "In 2001, the FBI discovered new, 'massive' Israeli spying operations in the East Coast, including New York and New Jersey," and they began watching Gilon, who eventually led them to Franklin. The JTA dates the genesis of the inquiry more precisely: "information garnered during the investigation into alleged leaks from a Pentagon analyst to the two former AIPAC staffers suggests the FBI began probing AIPAC officials just before the Sept. 11, 2001, terrorist attacks."

Like a dorsal fin poking just above the water, the Franklin spy trial promises us a glimpse of a creature much larger than appears at first sight. Whether the trial will draw it up to the surface remains to be seen. In any case, the magnitude of the problem posed by the covert activities of our ally-heretofore ignored or covered up-is all too clear.

Justin Raimondo is editorial director of Antiwar.com.

June 20, 2005 Issue

HAARP Microwave Beam wrote:
> Israeli couple working for Mossad subvert global computer fire walls
> ....
>
> ZNET
>
> MICHAEL HAEPHRATI --- ENEMY OF THE STATES OF THE UNION
>
> NO. # 1 ENEMY OF THE U.S.A -- Michael Haephrati -- [not Lawrence
> Franklin, who pee'd in the face of the Pentagon and got away laughing,

> but Michael Haephrati, 41, who had undergone a bitter divorce from
> Raziel Jackont's daughter eight years earlier -- and who, according to
> Jackont, was the model for a shady character in the novel, and who is
> at the heart of darkness of this espionage case against all main U.S.
> computer companies].
>
> Interpol and FBI and Mossad investigators now admit that Haephrati was
> involved in a much larger criminal conspiracy.
>
> In a statement released over the weekend, police said they had
> discovered a Trojan horse on Jackont's computer that they were able to
> trace to an unnamed source. The Trojan allowed the person to control
> the computer, make changes to its programs, monitor everything it
> contained and raid it for information -- all without leaving any hint
> of the Trojan's existence. Investigators also discovered that the same
> person had sold the software to three of Israel's largest private
> investigation companies, which allegedly used it to illegally collect
> data for their corporate clients and undermine US money transfers and
> military security.
>
> Hundreds of companies -- including many U.S. and European firms -- have
> been spied upon without realizing it.
>
> Last week's arrests included an executive of a major satellite
> television company, suspected of spying on a cable television rival,
> and officials of two cell phone companies, suspected of eavesdropping
> on a mutual rival. Also accused in the scheme was the Israeli importer
> of Volvos and Hondas, suspected of spying on the company that imports
> Audis and Volkswagens.
>
> The first of several police statements did not name the alleged author
> of the scheme but said two Israelis had been arrested in London for
> allegedly manufacturing and distributing the Trojan. Scotland Yard
> confirmed that Haephrati and his wife, Ruth Brier-Haephrati, 28, were
> being held for extradition to Israel for "unauthorized modification of
> the contents of a computer," according to the Associated Press. They
> have made no public comment on the charge.
>
> Security experts say they've discovered a Trojan horse that records
> e-banking user details and Web surfing habits.
>
> Antivirus company Sophos is warning that the Banker-AJ Trojan is
> targeting online customers of British banks such as Abbey, Barclays,
> Egg, HSBC, Lloyds TSB, Nationwide and NatWest. The Trojan affects
> computers running Microsoft Windows.
>
> The company said that once installed, the Trojan waits for users to
> visit their online banking Web sites, then captures passwords and takes
> screenshots of the session. The information is relayed to the hackers
> behind the ploy, who use the data to steal money and highly classified

> corporate and military information.
>
> Last week, police arrested 16 people in Israel, including senior
> executives of some of the country's leading high-tech companies and the
> private investigators they had allegedly employed. At the same time,
> British authorities, acting on an Israeli request, arrested the former
> son-in-law and his wife in London and are holding them pending an
> extradition hearing this week.
>
> Israeli newspapers, which had been alerted to the case last week but
> were prohibited from publishing details until the roundup was completed
> over the weekend, characterized it as the biggest case of industrial
> espionage in the country's history. "No one remembers a case like this
> in Israel -- an affair with such scope of investigation involving
> technology at this high level," said Chief Superintendent Rafi Levy,
> spokesman for the national police force.
>
>
>
> "It's the next generation of phishing attacks," said Graham Cluley,
> senior technology consultant for Sophos. "These rely on people going to
> real, legitimate sites. Once the Trojan determines that you've gone
> there, it starts taking keystroke logs and snaps shots of machines and
> sends it back to hackers."
>
> Phishing scammers typically set up bogus Web sites to capture victims'
> personal information. They send e-mails that appear to come from
> trusted companies to lure people to the fake sites, where victims are
> asked to enter information such as credit card data. Attacks frequently
> target bank customers, but eBay and Amazon.com have also been recent
> targets.
>
> Previous Next Barclays Bank said it had seen the technique of
> using legitimate sites before. A representative for the company said,
> "This type of Trojan is something (we) have been aware of for some
> time. We are working with (the) industry to identify the next steps to
> help combat fraud and are interested in educating customers."
>
> Sophos also said it had seen a similar Trojan, Tofger, a few months
> ago, but the technique had mainly been used in Brazil.
>
> "We did see another one a few months ago," Cluley added. "Some of the
> Brazilian ones just wait for the user to look at a Web site with the
> word 'bank' in (it), but this one specifically targets many well-known
> U.K. banks, and that makes it notable."
>
>
> Lawrence ben' Franklin wrote:
> > Why is the WJC [World Jewish Congress] which is affiliated with
> > Seagram's Liquors Global, in Toronto, not making an outcry over such an

> > abuse of the Americans and their government?
> >
> > Haven't we helped the Canadians a lot and the refugees from Hitler's
> > odious crimes, too?
> >
> > Whoever you are Golan, god bless you!!!
> >
> >
> > Thanks for trying to come to the aid of our nation.
> >
> > AIPAC sucks. They are unsavory and sneaky and untrustworthy and
> > unworthy of even our contempt.
> >
> > Put them on the blacklist, one and all.
> >
> > 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> > Watergate and record phone sex sessions between her and President Bill
> > Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> > their conversations were being taped and ended the affair. At the same
> > time, the FBI's hunt for "Mega" [top secret Mossad agent planted high
> > in US government] is called off.
> >
> > 2001 It is discovered that US drug agents' communications have been
> > penetrated. Suspicion falls on two companies, AMDOCS and Comverse
> > Infosys, both owned by Israelis. AMDOCS generates billing data for most
> > US phone companies and is able to provide detailed logs of who is
> > talking to whom. Comverse Infosys builds the tapping equipment used by
> > law enforcement to eavesdrop on all American telephone calls, but
> > suspicion forms that Comverse, which gets half of its research and
> > development budget from the Israeli government, has built a back door
> > into the system that is being exploited by Israeli intelligence and
> > that the information gleaned on US drug interdiction efforts is finding
> > its way to drug smugglers. The investigation by the FBI leads to the
> > exposure of the largest foreign spy ring ever uncovered inside the
> > United States, operated by Israel. Half of the suspected spies have
> > been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> > dancing and cheering while the World Trade Towers collapse. Supposedly
> > employed by Urban Moving Systems, the Israelis are caught with multiple
> > passports and a lot of cash. Two of them are later revealed to be
> > Mossad. As witness reports track the activity of the Israelis, it
> > emerges that they were seen at Liberty Park at the time of the first
> > impact, suggesting a foreknowledge of what was to come. The Israelis
> > are interrogated, and then eventually sent back to Israel. The owner of
> > the moving company used as a cover by the Mossad agents abandons his
> > business and flees to Israel. The United States Government then
> > classifies all of the evidence related to the Israeli agents and their
> > connections to 9-11. All of this is reported to the public via a four
> > part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> > primarily AIPAC, forces Fox News to remove the story from their
> > website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company

> > with offices just a few blocks from the World Trade Towers, receives an
> > advance warning via the internet. The manager of the New York Office
> > provides the FBI with the IP address of the sender of the message, but
> > the FBI does not follow up.
> >
> > 2001 The FBI is investigating 5 Israeli moving companies as possible
> > fronts for Israeli intelligence.
> >
> > ---
> >
> > The HAARP and the NIF are even more dangerous than AIPAC which just
> > planted a few Mossad spies into the Pentagon and they sold the secrets
> > stolen to Israeli high tech and EM weapons national industries there.
> >
> >
> > AIPAC spies in the Pentagon and White House
> > http://www.whatreallyhappened.com/motherofallscandals.html
> >
> > http://www.rense.com/general56/supreb.htm
> > Lawrence Franklin the Arnold Benedict Israeli-American of Pentagon
> > Affairs
> > http://www.rense.com/general57/linkcon.htm
> >
> >
> > Yes. NIF and HAARP are run by the same Pentagon group.
> > ---------------------
> >
> > Israeli Spying:
> > The Mother of all Scandals
> > Once again, Israel has been caught with spies at the highest levels of
> > the US Government.
> >
> > At the heart of the investigation are two people who work at The
> > American Israel Public Affairs Committee (AIPAC), a powerful pro-Israel
> > lobby in Washington. The FBI investigation, headed up by Dave Szady,
> > has involved wiretaps, undercover surveillance and photography that CBS
> > News was told document the passing of classified information from the
> > mole, to the men at AIPAC, and on to the Israelis.
> >
> > CBS sources say that last year the suspected spy, described as a
> > trusted analyst at the Pentagon, turned over a presidential directive
> > on U.S. policy toward Iran while it was, "in the draft phase when U.S.
> > policy-makers were still debating the policy." This put the Israelis,
> > according to one source, "inside the decision-making loop" so they
> > could "try to influence the outcome." [CBS News]
> >
> > Once again Israel denies wrongdoing, or faced with incontrovertible
> > evidence (in this case one of the spies has reportedly cooperated with
> > the FBI) dismisses the spying with the claim that such spying is
> > harmless, because Israel and the United States are such good friends.

> >
> > Well, let us take a closer look at that idea of "harmless
> > espionage" by recalling Israel's most famous failed spy, Jonathan
> > Pollard.
> >
> > Jonathan Pollard is an American of Jewish descent, born in Galveston
> > Texas, who established a career as an intelligence analyst for the US
> > Navy. There have been many theories offered as to why Pollard decided
> > to betray his country of birth to the Jewish state, but that Pollard
> > did betray his country of birth to Israel is beyond all doubt.
> > Pollard's defense was that he did not spy so much against the United
> > States, only that he spied for Israel, sending them documents that in
> > his opinion the US should have shared with Israel anyway.
> >
> > That it was never Pollards job to decide what documents Israel should
> > have was apparently irrelevant. Pollard arrogated that authority to
> > himself. From his position of trust within the US Navy, Pollard
> > delivered over 1000 classified documents to Israel for which he was
> > well paid. Included in those documents were the names of over 150 US
> > agents in the Mideast, who were eventually "turned" into agents for
> > Israel.
> >
> > But by far the most egregious damage done by Pollard was to steal
> > classified documents relating to the US Nuclear Deterrent relative to
> > the USSR and send them to Israel. According to sources in the US State
> > Department, Israel then turned around and traded those stolen nuclear
> > secrets to the USSR in exchange for increased emigration quotas from
> > the USSR to Israel. Other information that found its way from the US to
> > Israel to the USSR resulted in the loss of American agents operating
> > inside the USSR. Casper Weinberger, in his affidavit opposing a reduced
> > sentence for Pollard, described the damage done to the United States
> > thus, "[It is] difficult to conceive of a greater harm to national
> > security than that caused by... Pollard's treasonous behavior."
> >
> > This should end the suggestion that Israel's spies are harmless. They
> > are not. The United States' nuclear deterrent cost an estimated five
> > trillion taxpayer dollars during the 50s and 60s to build and maintain,
> > and less than $100,000 for Pollard to undermine. Israel waited 13 years
> > to admit Pollard had been spying for them, and now lobbies for his
> > release, having granted him Israeli citizenship.
> >
> > Pollard is hardly the only Israeli spy operating in the United States.
> > He just had the misfortune to get caught. Here are just a few examples
> > of the Israeli spy operations that have been detected.
> >
> > 1947. Information collected by the ADL in its spy operations on US
> > citizens is used by the House Select Committee on Unamerican
> > Activities. Subcommittee Chair Clare Hoffman dismisses the ADL's
> > reports on suspected communists as "hearsay."
> >

> > 1950 John Davitt, former chief of the Justice Department's internal
> > security section notes that the Israeli intelligence service is the
> > second most active in the United States after the Soviets.
> >
> > 1954 A hidden microphone planted by the Israelis is discovered in the
> > Office of the US Ambassador in Tel Aviv.
> >
> > 1956 Telephone taps are found connected to two telephones in the
> > residence of the US military attaché in Tel Aviv.
> >
> > 1954 "The Lavon Affair". Israeli agents recruit Egyptian citizens of
> > Jewish descent to bomb Western targets in Egypt, and plant evidence to
> > frame Arabs, in an apparent attempt to upset US-Egyptian relations.
> > Israeli defense minister Pinchas Lavon is eventually removed from
> > office, though many think real responsibility lay with David
> > Ben-Gurion.
> >
> > 1965 Israel apparently illegally obtains enriched uranium from NUMEC
> > Corporation. (Washington Post, 6/5/86, Charles R. Babcock, "US an
> > Intelligence Target of the Israelis, Officials Say.")
> >
> > 1967 Israel attacks the USS Liberty, an intelligence gathering vessel
> > flying a US flag, killing 34 crew members. See "Assault on the
> > Liberty," by James M. Ennes, Jr. (Random House). In 2004, Captain Ward
> > Boston, Senior Legal Counsel for the Navy's Court of Inquiry into the
> > attack swears under oath that President Lyndon Johnson ordered the
> > investigation to conclude accident, even though the evidence indicates
> > the attack was deliberate. Given the use by Israel of unmarked boats
> > and planes, and the machine-gunning of USS Liberty's lifeboats, the
> > most likely explanation is that USS Liberty was to be sunk with all
> > hands, with evidence left to frame Egypt for the sinking. This would
> > have dragged the US into the war on Israel's side.
> >
> > 1970 While working for Senator Henry "Scoop" Jackson, Richard Perle
> > is caught by the FBI giving classified information to Israel. Nothing
> > is done.
> >
> > 1978, Stephen Bryen, then a Senate Foreign Relations Committee staffer,
> > is overheard in a DC hotel offering confidential documents to top
> > Israeli military officials. Bryen obtains a lawyer, Nathan Lewin, and
> > the case heads for the grand jury, but is mysteriously dropped. Bryen
> > later goes to work for Richard Perle.
> >
> > 1979 Shin Beth [the Israeli internal security agency] tries to
> > penetrate the US Consulate General in Jerusalem through a "Honey
> > Trap", using a clerical employee who was having an affair with a
> > Jerusalem girl.
> >
> > 1985 The New York Times reports the FBI is aware of at least a dozen
> > incidents in which American officials transferred classified

> > information to the Israelis, quoting [former Assistant Director of the
> > F.B.I.] Mr. [Raymond] Wannal. The Justice Department does not
> > prosecute.
> >
> > 1985 Richard Smyth, the owner of MILCO, is indicted on charges of
> > smuggling nuclear timing devices to Israel (Washington Post, 10/31/86).
> >
> >
> > 1987 April 24 Wall Street Journal headline: "Role of Israel in
> > Iran-Contra Scandal Won't be Explored in Detail by Panels"
> >
> > 1992 The Wall Street Journal reports that Israeli agents apparently
> > tried to steal Recon Optical Inc's top-secret airborne spy-camera
> > system.
> >
> > 1992 Stephen Bryen, caught offering confidential documents to Israel in
> > 1978, is serving on board of the pro-Israeli Jewish Institute for
> > National Security Affairs while continuing as a paid consultant -- with
> > security clearance -- on exports of sensitive US technology.
> >
> > 1992 "The Samson Option," by Seymour M. Hersh reports, "Illicitly
> > obtained intelligence was flying so voluminously from LAKAM into
> > Israeli intelligence that a special code name, JUMBO, was added to the
> > security markings already on the documents. There were strict orders,
> > Ari Ben-Menashe recalled: "Anything marked JUMBO was not supposed to be
> > discussed with your American counterparts."
> >
> > 1993. The ADL is caught operating a massive spying operation on critics
> > of Israel, Arab-Americans, the San Francisco Labor Council, ILWU Local
> > 10, Oakland Educational Association, NAACP, Irish Northern Aid,
> > International Indian Treaty Council, the Asian Law Caucus and the San
> > Francisco police. Data collected was sent to Israel and in some cases
> > to South Africa. Pressure from Jewish organizations forces the city to
> > drop the criminal case, but the ADL settles a civil lawsuit for an
> > undisclosed sum of cash.
> >
> > 1995 The Defense Investigative Service circulates a memo warning US
> > military contractors that "Israel aggressively collects [US] military
> > and industrial technology." The report stated that Israel obtains
> > information using "ethnic targeting, financial aggrandizement, and
> > identification and exploitation of individual frailties" of US
> > citizens.
> >
> > 1996 A General Accounting Office report "Defense Industrial Security:
> > Weaknesses in US Security Arrangements With Foreign-Owned Defense
> > Contractors" found that according to intelligence sources "Country A"
> > (identified by intelligence sources as Israel, Washington Times,
> > 2/22/96) "conducts the most aggressive espionage operation against the
> > United States of any US ally." The Jerusalem Post (8/30/96) quoted the
> > report, "Classified military information and sensitive military

> > technologies are high-priority targets for the intelligence agencies of
> > this country." The report described "An espionage operation run by the
> > intelligence organization responsible for collecting scientific and
> > technologic information for [Israel] paid a US government employee to
> > obtain US classified military intelligence documents." The Washington
> > Report on Middle East Affairs (Shawn L. Twing, April 1996) noted that
> > this was "a reference to the 1985 arrest of Jonathan Pollard, a
> > civilian US naval intelligence analyst who provided Israel's LAKAM
> > [Office of Special Tasks] espionage agency an estimated 800,000 pages
> > of classified US intelligence information."
> >
> > The GAO report also noted that "Several citizens of [Israel] were
> > caught in the United States stealing sensitive technology used in
> > manufacturing artillery gun tubes."
> >
> > 1996 An Office of Naval Intelligence document, "Worldwide Challenges to
> > Naval Strike Warfare" reported that "US technology has been acquired
> > [by China] through Israel in the form of the Lavi fighter and possibly
> > SAM [surface-to-air] missile technology." Jane's Defense Weekly
> > (2/28/96) noted that "until now, the intelligence community has not
> > openly confirmed the transfer of US technology [via Israel] to China."
> > The report noted that this "represents a dramatic step forward for
> > Chinese military aviation." (Flight International, 3/13/96)
> >
> > 1997 An Army mechanical engineer, David A. Tenenbaum, "inadvertently"
> > gives classified military information on missile systems and armored
> > vehicles to Israeli officials (New York Times, 2/20/97).
> >
> > 1997 The Washington Post reports US intelligence has intercepted a
> > conversation in which two Israeli officials had discussed the
> > possibility of getting a confidential letter that then-Secretary of
> > State Warren Christopher had written to Palestinian leader Yasir
> > Arafat. One of the Israelis, identified only as "Dov", had
> > commented that they may get the letter from "Mega", the code name for
> > Israel's top agent inside the United States.
> >
> > 1997 US ambassador to Israel, Martin Indyk, complains privately to the
> > Israeli government about heavy-handed surveillance by Israeli
> > intelligence agents.
> >
> > 1997 Israeli agents place a tap on Monica Lewinsky's phone at the
> > Watergate and record phone sex sessions between her and President Bill
> > Clinton. The Ken Starr report confirms that Clinton warned Lewinsky
> > their conversations were being taped and ended the affair. At the same
> > time, the FBI's hunt for "Mega" is called off.
> >
> > 2001 It is discovered that US drug agents' communications have been
> > penetrated. Suspicion falls on two companies, AMDOCS and Comverse
> > Infosys, both owned by Israelis. AMDOCS generates billing data for most
> > US phone companies and is able to provide detailed logs of who is

> > talking to whom. Comverse Infosys builds the tapping equipment used by
> > law enforcement to eavesdrop on all American telephone calls, but
> > suspicion forms that Comverse, which gets half of its research and
> > development budget from the Israeli government, has built a back door
> > into the system that is being exploited by Israeli intelligence and
> > that the information gleaned on US drug interdiction efforts is finding
> > its way to drug smugglers. The investigation by the FBI leads to the
> > exposure of the largest foreign spy ring ever uncovered inside the
> > United States, operated by Israel. Half of the suspected spies have
> > been arrested when 9-11 happens. On 9-11, 5 Israelis are arrested for
> > dancing and cheering while the World Trade Towers collapse. Supposedly
> > employed by Urban Moving Systems, the Israelis are caught with multiple
> > passports and a lot of cash. Two of them are later revealed to be
> > Mossad. As witness reports track the activity of the Israelis, it
> > emerges that they were seen at Liberty Park at the time of the first
> > impact, suggesting a foreknowledge of what was to come. The Israelis
> > are interrogated, and then eventually sent back to Israel. The owner of
> > the moving company used as a cover by the Mossad agents abandons his
> > business and flees to Israel. The United States Government then
> > classifies all of the evidence related to the Israeli agents and their
> > connections to 9-11. All of this is reported to the public via a four
> > part story on Fox News by Carl Cameron. Pressure from Jewish groups,
> > primarily AIPAC, forces Fox News to remove the story from their
> > website. Two hours prior to the 9-11 attacks, Odigo, an Israeli company
> > with offices just a few blocks from the World Trade Towers, receives an
> > advance warning via the internet. The manager of the New York Office
> > provides the FBI with the IP address of the sender of the message, but
> > the FBI does not follow up.
> >
> > 2001 The FBI is investigating 5 Israeli moving companies as possible
> > fronts for Israeli intelligence.
> >
> > 2001 JDL's Irv Rubin arrested for planning to bomb a US Congressman.
> > He dies before he can be brought to trial.
> >
> > 2002 The DEA issues a report that Israeli spies, posing as art
> > students, have been trying to penetrate US Government offices.
> >
> > 2002 police near the Whidbey Island Naval Air Station in southern
> > Washington State stop a suspicious truck and detain two Israelis, one
> > of whom is illegally in the United States. The two men were driving at
> > high speed in a Ryder rental truck, which they claimed had been used to
> > "deliver furniture." The next day, police discovered traces of TNT and
> > RDX military-grade plastic explosives inside the passenger cabin and on
> > the steering wheel of the vehicle. The FBI then announces that the
> > tests that showed explosives were "false positived" by cigarette
> > smoke, a claim test experts say is ridiculous. Based on an alibi
> > provided by a woman, the case is closed and the Israelis are handed
> > over to INS to be sent back to Israel. One week later, the woman who
> > provided the alibi vanishes.

> >
> > 2003 The Police Chief of Cloudcroft stops a truck speeding through a
> > school zone. The drivers turn out to be Israelis with expired
> > passports. Claiming to be movers, the truck contains junk furniture and
> > several boxes. The Israelis are handed over to immigration. The
> > contents of the boxers are not revealed to the public.
> >
> > 2003 Israel deploys assassination squads into other countries,
> > including the United States. The US Government does not protest.
> >
> > 2004 Police near the Nuclear Fuel Services plant in Tennessee stop a
> > truck after a three mile chase, during which the driver throws a bottle
> > containing a strange liquid from the cab. The drivers turn out to be
> > Israelis using fake Ids. The FBI refuses to investigate and the
> > Israelis are released.
> >
> > 2004 Two Israelis try to enter Kings Bay Naval Submarine Base, home to
> > eight Trident submarines. The truck tests positive for explosives.
> >
> > This brings us to the present scandal. Two years into an investigation
> > of AIPAC's possible role as a spy front for Israel, Larry Franklin, a
> > mid-level Pentagon Analyst is observed by the FBI giving classified
> > information to two officials of AIPAC suspected of being Israeli spies.
> > AIPAC hires lawyer Nathan Lewin to handle their legal defense, the same
> > lawyer who defended suspected Israeli spy Stephen Bryen in 1978.
> >
> > Larry Franklin worked in the Pentagon Office of Special Plans, run by
> > Richard Perle, at the time Perle (who was caught giving classified
> > information to Israel back in 1970) was insisting that Iraq was
> > crawling with weapons of mass destruction requiring the United States
> > to invade and conquer Iraq. There were no WMDs, of course, and Perle
> > has dumped the blame for the "bad intelligence" on George Tenet.
> > But what is known is that the Pentagon Office of Special Plans was
> > coordinating with a similar group in Israel, in Ariel Sharon's
> > office.
> >
> > With two suspected Israeli spies (at least) inside the office from
> > which the lies that launched the war in Iraq originated, it appears
> > that the people of the United States are the victims of a deadly hoax,
> > a hoax that started a war.
> >
> > The leaking of the investigation of AIPAC to the media on August 28th,
> > 2004 gave advance warning to other spies working with Franklin. The
> > damage to the FBI's investigation was completed when United States
> > Attorney General John Ashcroft ordered the FBI to stop all arrests in
> > the case. Like the Stephen Bryen case and the hunt for "Mega", this
> > latest spy scandal seems destined by officials who have their own
> > secret allegiances to protect, barring a massive public outcry.
> >
> > The organization at the heart of the latest spy investigation, AIPAC,

> > wields tremendous influence over the US Congress. Through its members
> > and affiliated PACs, AIPAC directs a huge flow of campaign cash in
> > favor of, and occasionally against, Senators and Representatives solely
> > on the basis of their willingness to support Israel. As an example, in
> > 2002, U.S. Rep. Artur Davis, D-Birmingham received so much help from
> > pro-Israeli pacs that 76% of his campaign budget came from OUTSIDE the
> > state of Alabama, mostly from New York.
> >
> > Let me repeat that. A Congressman AIPAC wanted elected received more
> > money from pro-Israel groups outside his state than from his own
> > constituents inside his state. Who is that Congressman going to be
> > thinking of when he votes in Congress?
> >
> > So here is the mother of all scandals.
> >
> > For two years, the FBI has suspected AIPAC of spying for a foreign
> > country, and for those two years (and for decades before) that group
> > suspected of spying for Israel has been reshaping the US Congress for
> > the benefit of a foreign government.
> >
> > And THAT is the mother of all scandals.
> >
> > Think about that as billions of your tax dollars flow to Israel while
> > your roads and schools crumble and decay and services are cut.
> >
> > Think about that as the coffins come home with your loved ones inside.
> >
> > Think about that when you and a million of your fellow citizens march
> > down the streets of America opposing wars built on lies and deceptions
> > and wonder why the government just doesn't want to listen to you any
> > more.
> >
> >
> >
> > ---
> >
> > See also: Is Israel Blackmailing America?

1247. Re: Delusions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:11:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b0vap9gnhlf0d@corp.supernews.com>
Source record: 74963

Reg Edwards wrote:
> . . .

> Making measurements is an ART rather than an engineering discipline.

I maintain that it's both an art AND an engineering discipline.

> . . .

> Something similar applies to numerical computer programs. The
> reliability of a computer program depends on the programmer's
> knowledge of the matter in hand and has nothing to do with the machine
> it is running on. Far too much faith is placed on computed results
> merely because they are computed.

Agreed. This makes it essential that computed results be compared with measured results, or results calculated by other established methods, to gain confidence that the computer calculations are valid.

> . . .
> Very little extra knowledge is gained by comparing a pair of computed
> and measured results because there is no means of knowing how and from
> where the inevitable difference arises.
> . . .

I've found that to be completely untrue. I've done a good deal of design work in the areas of very high speed time domain circuitry and microwave RF circuitry, where direct measurement of internal functioning is impossible. I and my colleagues used modeling extensively in the course of our design work. An essential part of the process is to periodically look at the overall performance of a real circuit and compare it to the model. The model was adjusted (by varying unknown values, by adding components previously thought insignificant, and so forth) until the model adequately matched the measured results. This does, of course, require confidence in the measured results, which is subject to a host of potential problems. But the important thing is that agreement between the model and measurement must be gained in order to have any confidence in the usefullness of the model. It's not only possible, but critical to know how and from where the differences arise.

It sounds like you're saying that when presented with computed results we have no recourse but to put faith in the programmer. That's not at all so. We have to test the results against measurements or other calculations and resolve the differences before we can put much faith in any model or program.

With the rest, I agree.

>. . .

Roy Lewallen, W7EL

1248. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:21:27 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <ZpSdnbWIzupf4i3fRVn-hw@comcast.com>
Source record: 74964

"mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com> wrote in message
news:1118860380.458418.307770@o13g2000cwo.googlegroups.com...
> Thank you again for your replies.
>
> I agree with your assessment that much of our (company's) internal
> (operational) systems may be considered "broken" by virtue of current
> circumstance. Unfortunately (or perhaps fortunately depending on ones
> point of view), I am not in a position to have any real effect in
> matters I am not paid to have an opinion on.
>
> However, regarding the communications amongst the 40 or so busses I can
> have a positive effect on, there may be some positive contributions I
> can make. I have recently learned that our mechanic has been the one to
> install the radios, coax, and antennas all along.
>
> The way the (broken) system apparently works:
>
> Barn gets new bus in.
> Manager asks for permission to buy new radio for new bus.
> Uppon approval, manager orders new radio system (radio, coax, antenna,
> hardware, etc.), from local company.
> Mechanic installs new radio into new bus.
> Everyone hopes for the best.
>
> In the course of conversation with our mechanic this morning on the
> matter, I learned that he has mounted a number of the antennas on a
> part of the bus that is fiberglass. I tried to explain a bit about
> ground-plane to him and the need for the antennas to be mounted on a
> metal part of the bus. I' am having him take one of the "worst"
> communicating busses and move the antenna to a metal part of the bus. I
> am also having him go through all the contacts and connections and
> cleaning them. I'll post what was done and what the results have been.
>
> Thanks again for your help!
> Mike
>

Mike -

VERY USEFUL INFORMATION.

Yes, fiberglass is worthless for the required ground plane of a 1/4 wave UHF
antenna - and requires additional materials.
PCTEL based in the Chicago area is a major antenna mfg. and suppliers (e.g.
MAXRAD, Antenna Specialists).

They have 2 suitable products specifically made for fiberglass body vehicles and antenna mounting (Page 44 of their catalog)
http://www.antenna.com/lm_cat/pdf/lmr_catalog.pdf
Ground Plane Kit Model K-67

Ground plane kit for fiberglass-bodied vehicles. Complete with instructions and sufficient adhesive backed foil for one low-band/high-band or six UHF ground planes (3 inches x 44 ft). Includes metal clips for circuit continuity.

Ground Plane Disk Model K-332

Provides ground plane for fiberglass-bodied vehicles.

THIS NEEDS TO BE ADDED TO THE "BILL of MATERIALS that you are ordering from the "local company" supplying the radio and antenna materials

==========

Greg, w9gb

1249. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:26:08 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <FPSdnaYtBNZGHS3fRVn-uw@comcast.com>
Source record: 74965

"mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com> wrote in message
news:1118860380.458418.307770@o13g2000cwo.googlegroups.com...
> Thank you again for your replies.
>
> In the course of conversation with our mechanic this morning on the
> matter, I learned that he has mounted a number of the antennas on a
> part of the bus that is fiberglass. I tried to explain a bit about
> ground-plane to him and the need for the antennas to be mounted on a
> metal part of the bus. I' am having him take one of the "worst"
> communicating busses and move the antenna to a metal part of the bus. I
> am also having him go through all the contacts and connections and
> cleaning them. I'll post what was done and what the results have been.
>
One other point Mike.

After this mechanic installs the COAX and ANTENNA - he can use his VOM to
assure that the center conductor and shield are NOT shorted
(unless you are using a loading coil or other special purpose antenna).
Every mechanic should be very familiar with this test from vehicle
electrical systems.

Greg
w9gb

1250. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:43:45 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Rx%re.49680$wr.38116@clgrps12>
Source record: 74966

"John Smith" <assemblywizard@gmail.com> wrote in message
news:Do_re.31$rX5.512151@news.sisna.com...
> ... no need, I have seen the results of such devices in practical
> operation...
>
> I do a class at the jr. college here, have 3 sons in the computer field,
> my garage is a clubhouse/wireless point/computer lab...
>
> ... lot of cs/electronics majors... they have fired up such devices before
> I said, "Not here!!!"
>
> Really got pissed when it jammed my "late night talk radio" which I fall
> asleep to...
>
> Warmest regards,
> John

When people try to say you are talking garbage it sparks my curiosity, and have to see for myself. I should have realized that Sa(x) almost goes on forever. Even at 100 GHz from the carrier the sidebands are about -85 dBc. Other factors will probably suppress these very high order sidebands, but still interesting to crunch numbers. Now I have an overwhelming desire to build a -4000 V pulse generator, just to see how close it comes to theory.

73,

Frank

1251. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:52:01 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <BF%re.4914$jX6.1397@newsread2.news.pas.earthlink.net>
Source record: 74968

Hi MK,

You seem a bit wound up... too much caffeine? ;-)

<nm5k@wt.net> wrote in message
news:1118723621.030322.304090@g43g2000cwa.googlegroups.com...
> (snip)
>
> > Still others can't seem to understand that effects
> > too small to measure usually do not matter in the real world.
>
> Total BS in most cases....I seen the lack of decoupling totally
> ruin otherwise decent antennas... I've personally tested and
> seen easy 3-4 s unit differences in the same exact antenna , with
> and without the decoupling section connected.
> Decoupling is critical to high performance on VHF/UHF.
> All the best designs include it.
>
Let's see now. You say my proposition that an effect too small
to measure doesn't matter is "Total BS in most cases." Then
you give an "example" where the effect can not only be measured,
but the measured difference is very large "3-4 s unit(s)."

This strongly suggests that you did not understand the original
premise of "effects too small to measure." So let's try another
example, one far removed from antennas.

Let's say that ONE dust mite of 1,489,362 on your body at a
certain time decides to jump off while you're standing on the
bathroom scale--and that this event does not register on the scale.

I would say this too-small-to-measure event does not matter in
the real world. And even if you found a super laboratory scale
that actually could measure the mite departing, I would STILL
say the event does not matter. Your mileage may vary, of course.

Over in a digital camera forum I frequent, they have coined a
term to describe camera geeks who obsess about tiny differences
in camera system performance that have no practical significance
in real-world picture taking. The term is "measurebator."

Perhaps the term would also be useful in this NG. But we'll
probably have to add a new one of our own for the guys who
think modeling trumps practice. I suggest "modelbator."

Last but not least, if someone posts valid data showing that the
performance of an OSJ J-pole can be measurably, repeatably,

and significantly improved by a decoupling device, I'll be grateful
to him/her! And if the decoupling device is practical and affordable,
I'll want to know where to buy one, or how to build one.

Live long and prosper...

> (snip)
>
> > You are
> > starting to attract imitators.
>
> The J pole has been imitated numerous times....
> Or are you talking about arrows?
>
My reference was to a guy in our area who is making exact
mechanical copies of the Arrow design. I suspect there are
others doing the same.

> (snip)
> MK
>

1252. EZNEC ARRL and EZNEC 4 Demo: Setting default folders

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:54:57 UTC
From: Buck <iam@this.site>
Message-ID: <5m11b1lrjaeh2gc40va0fohcqjk9in26tb@4ax.com>
Source record: 74967

I completely uninstalled and reinstalled eznec 4 demo and the ARRL
version (3). I reinstalled them, ARRL version first and then demo 4.

I took the time to move my data folders to a separate drive and to set
the folder settings on the programs to point to those folders.
However, when I start back up, the program goes back to the default
and I have to manually redirect it.

I looked in the ini file but there was nothing there.

Any way to correct this?
--
73 for now
Buck
N4PGW

1253. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 19:59:19 UTC
From: Buck <iam@this.site>
Message-ID: <a021b1p12s5blbs3b5mtqb9p7n99bl46gm@4ax.com>
Source record: 74969

On Wed, 15 Jun 2005 11:49:43 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Buck wrote:
>> Thanks for the reply and comments.
>>
>> I have been enjoying my time playing around with the program. I have
>> notice that an antenna cut, trimmed and tuned at one location often
>> has a different dip in another.
>>
>> As for the program, I would like to order the full version of eznec,
>> but I can't possibly budget that in right now. Is there a similar
>> program available without the 20 segment limit? I am thinking I saw
>> one many months ago when I first tried playing with this one.
>>
>> Thanks,
>
>EZNEC-ARRL, a type of EZNEC v. 3.0, is included with the 20th Edition of
>the ARRL Antenna Book. It has a 500 segment limit when analyzing any of
>the several hundred EZNEC models included with the Antenna Book. You can
>modify any of those models and retain the 500 segment limit. However, if
>you save a modified model and open it again, the program will revert to
>the 20 segments of the demo version, since the saved file isn't one of
>the special ARRL files which relieve the segment limit. (Incidentally,
>all those several hundred models are recognized by standard EZNEC
>programs as ordinary EZNEC files, for those of you who have the standard
>program.)
>
>There are several other programs available which have higher segment
>limits that are free. A web search and/or recommendations from other
>people should lead you to some of them. NEC-2 itself is free and
>available on the web, although you'll probably find it relatively
>difficult to use.
>
>Roy Lewallen, W7EL

Thanks, I reinstalled it. I had to uninstall everything and then
install ARRL first before it would work. Now, however, I have a
problem placing the folders where I want them. Is there a way to do
this?

I just finished experimenting with the ARRL version. I was able to
modify any file as long as I don't save or quit, i can get about as
elaborate as I want by hand entering all the data.

--
73 for now
Buck
N4PGW

1254. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 20:07:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <bU%re.75$dg6.1795224@news.sisna.com>
Source record: 74971

Frank:

Lol, it is catching huh?

Almost without doubt, what was tearing up my am radio was the signal being fed on the B+ rail (~1Mhz run by a "chopped" supply--and most likely leaking some signal onto the house mains--I am guilty of not making those suspicions clear)... however, their intent was to jam wireless wans/lans--from what I heard--they were/are more than successful...

I know there was great experimentation here in trying to get a microwave magnetron "rock stable"--when that failed it lead to the "other" experimentation...

Just in case there is something to this--be careful when and where you operate it...I think it just might surprise you...

Warmest regards,
John

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:Rx%re.49680$wr.38116@clgrps12...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:Do_re.31$rX5.512151@news.sisna.com...
>> ... no need, I have seen the results of such devices in practical
>> operation...
>>
>> I do a class at the jr. college here, have 3 sons in the computer
>> field, my garage is a clubhouse/wireless point/computer lab...
>>
>> ... lot of cs/electronics majors... they have fired up such devices
>> before I said, "Not here!!!"
>>
>> Really got pissed when it jammed my "late night talk radio" which I
>> fall asleep to...
>>
>> Warmest regards,
>> John
>
> When people try to say you are talking garbage it sparks my curiosity,
> and have to see for myself. I should have realized that Sa(x) almost
> goes on forever. Even at 100 GHz from the carrier the sidebands are
> about -85 dBc. Other factors will probably suppress these very high
> order sidebands, but still interesting to crunch numbers. Now I have

> an overwhelming desire to build a -4000 V pulse generator, just to see
> how close it comes to theory.
>
> 73,
>
> Frank
>

1255. EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 20:27:55 UTC
From: Buck <iam@this.site>
Message-ID: <tn31b15je7ip8lia5uf1cck975i7scgah1@4ax.com>
Source record: 74970

When I setup an antenna in EZNEC, I want to see the azimuth but the program asks for an elevation angle. WHat angle should I use? I have been randomly using 5 or 10 deg.

Thanks

--
73 for now
Buck
N4PGW

1256. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 21:27:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <N_0se.102062$8S5.50638@bignews3.bellsouth.net>
Source record: 74973

OR - Here is where some very lossy coax could come in handy - Put a
half-watt 50-ohm resistor at the end of a loooong run of lossy coax.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:qbOre.230$G_.17487933@news.sisna.com...
> Hal:
>
> It may radiate, it may have a high swr on the cable feeding it... I
> just needed to dump 250 watts quickly and didn't have enough time to
> construct a "dummy load antenna" everyone is so anxious to speak of
> here...
>
> besides, unless you have a damn 50 ohm resistor across your coax--you
> only think that 50 ohm antenna load is all resistive!
>
> Warmest regards,
> John
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:LpNre.99906$8S5.10831@bignews3.bellsouth.net...
> > And what about ELI the ICE man ?
> > If you have a "L" then "E" leads "I", so I understand.
> > But suppose then you have another "L", and another, and another.
> > If "E" keeps leading "I" , then is "I" just slowing down for a cycle
> > at the
> > "L" ?
> > -- in udder words - I'd druther keep the dummy load resistive *****
> > I wonder if that resistance wire in the toaster would work as a dummy
> > load -
> > go ahead and try it - you can toast bread on the new dummy load.
> >
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:IJLre.217$GF6.15480927@news.sisna.com...
> >> Never mind, just dropped a so-239 on an old gallon can and wired it
> >> up--seems to work great, but haven't checked the swr on the outside
> >> of
> >> the can yet... <grin>
> >>
> >> John
> >>
> >> "John Smith" <assemblywizard@gmail.com> wrote in message
> >> news:dhKre.202$Dm4.14664776@news.sisna.com...
> >> >I need to come up with a dummy load for a 250+ watt xmitter.

> >> >
> >> > IF I take two 100 watt wire wound resistors in parallel (for 50
> >> > ohms)
> >> > and put them in a can full of silicone oil and feed it though an
> >> > L-Match should it work?
> >> >
> >> > Warmest regards,
> >> > John
> >> > --
> >> > Watching the cutting edge of yesterday replay--in virtual reality,
> >> > right before my eyes--in real time!
> >> > Thirty year old technology--wasn't it amazing?
> >> >
> >> >
> >>
> >>
> >
> >
>
>

1257. Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 21:43:13 UTC
From: Moto579 <ryanmeg@adelphia.net>
Message-ID: <1cCdnRPTa-RuPS3fRVn-vw@adelphia.com>
Source record: 74974

I would like to build a yagi for 448 mhz rangr for home use I have a 12 foot 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm line as a feed line? All the plans I have found are for 50 ohm feedlines. It is all I have for wire and living out in the boonies it is difficult to travel to pick up some 50 ohm.

I'm on a budget / disabled and would appreciate any help/ knowledge/links/donations on this.
I own the ARRL Antenna book 20th edition and find it to be a bit overwhelming so far.

Cheers,
Ryan

1258. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 21:43:52 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ht71b153vodjf6fgsujkqjnk0c8pjihk5v@4ax.com>
Source record: 74972

On Wed, 15 Jun 2005 09:36:53 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Tue, 14 Jun 2005 19:48:04 GMT, Bob Miller <NOSPAM@neosoft.com> wrote:
>
>>Amendments V and VI describe a process that would be meaningless
>>unless one is presumed innocent until proven otherwise.
>
>_____
>
>If OJ was "presumed innocent until proven guilty", why was he kept in
>jail for one whole year before and during his trial? Do we lock up
>people who are "presumed innocent"?
>
>The concept is deeply embedded in American beliefs, but in reality, it
>does not seem to exist.

The police who brought charges obviously thought he was guilty and
took precautions by locking OJ away, but legally, as far as the court
and the judge were concerned, he was presumed innocent and received
all of the judicial protections that that implies.

bob
k5qwg

1259. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 21:51:19 UTC
From: jgboyles@aol.com
Message-ID: <1118872279.756617.11240@g14g2000cwa.googlegroups.com>
Source record: 74826

Buck wrote:
> When I setup an antenna in EZNEC, I want to see the azimuth but the
> program asks for an elevation angle. WHat angle should I use? I have
> been randomly using 5 or 10 deg.
>
> Thanks
>
>
> --
> 73 for now
> Buck
> N4PGW

Hi Buck, Antennas have a 3-dimensional pattern. When you only want to see the Azimuth, you are looking at a 2D pattern, with a fixed elevation angle. The Azimuth plot must have an elevation angle to have meaning. The elevation angle you use depends on a number of factors. For instance, if you want to work dx, or want to hit a distant repeater, you want the most gain at low elevation angles. You want the Azimuth pattern to show the most gain at low elevation angles. I think 5-10 degrees qualifies as low angles.
EZNEC shows on the elevation plot the angle where the gain is maximum. It also has a 3D plot that really gives a good indication of where you are squirting the most signal.
Gary N4AST

1260. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 21:54:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d1d15$42b0a392$97d55d24$23435@ALLTEL.NET>
Source record: 74825

How far away is the station you are trying to receive? What is it's elevation, and yours? What obstacles are between you and the station of interest? What are you feeding the antenna output to? What is the polarity of the signal from the distant station?

There are a gazillion yagi antenna designs. First let us know what you are trying to accomplish, that will determine the best design for your particular need.

You have the necessary stuff for a solution, once the needs are defined.

"Moto579" <ryanmeg@adelphia.net> wrote in message news:1cCdnRPTa-RuPS3fRVn-vw@adelphia.com...
> I would like to build a yagi for 448 mhz rangr for home use I have a 12 foot
> 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
> think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm line
> as a feed line? All the plans I have found are for 50 ohm feedlines. It is
> all I have for wire and living out in the boonies it is difficult to travel
> to pick up some 50 ohm.
>
> I'm on a budget / disabled and would appreciate any help/
> knowledge/links/donations on this.
> I own the ARRL Antenna book 20th edition and find it to be a bit
> overwhelming so far.
>
>
> Cheers,
> Ryan
>
>

1261. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 21:57:26 UTC
From: Buck <iam@this.site>
Message-ID: <nv81b1drf5uhr5k5jfvn6i2srk3af1i8d0@4ax.com>
Source record: 74827

On 15 Jun 2005 14:51:19 -0700, jgboyles@aol.com wrote:

>
>
>Buck wrote:
>> When I setup an antenna in EZNEC, I want to see the azimuth but the
>> program asks for an elevation angle. WHat angle should I use? I have
>> been randomly using 5 or 10 deg.
>>
>> Thanks
>>
>>
>> --
>> 73 for now
>> Buck
>> N4PGW
>
> Hi Buck, Antennas have a 3-dimensional pattern. When you only want
>to see the Azimuth, you are looking at a 2D pattern, with a fixed
>elevation angle. The Azimuth plot must have an elevation angle to have
>meaning. The elevation angle you use depends on a number of factors.
>For instance, if you want to work dx, or want to hit a distant
>repeater, you want the most gain at low elevation angles. You want the
>Azimuth pattern to show the most gain at low elevation angles. I think
>5-10 degrees qualifies as low angles.
> EZNEC shows on the elevation plot the angle where the gain is
>maximum. It also has a 3D plot that really gives a good indication of
>where you are squirting the most signal.
>Gary N4AST

Thank you Gary, I have been looking at it a bit. I decided the best
way to get an accurate reading for the highest gain is to look at the
elevation and then set the azimuth elevation to the TOA.

Thank you,

Buck
N4PGW

--
73 for now
Buck
N4PGW

1262. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:05:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pC1se.92$np7.2216067@news.sisna.com>
Source record: 74833

Bob:

But look at the difference in the quality of analytical minds at
play--many police are barely above brain dead--big hulks we use for
muscle, or ex-marines trained to do-do in a corner when commanded...

The judges have proven some IQ and mental powers before being granted a
seat...

John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:ht71b153vodjf6fgsujkqjnk0c8pjihk5v@4ax.com...
> On Wed, 15 Jun 2005 09:36:53 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
>>On Tue, 14 Jun 2005 19:48:04 GMT, Bob Miller <NOSPAM@neosoft.com>
>>wrote:
>>
>>>Amendments V and VI describe a process that would be meaningless
>>>unless one is presumed innocent until proven otherwise.
>>
>>_____
>>
>>If OJ was "presumed innocent until proven guilty", why was he kept in
>>jail for one whole year before and during his trial? Do we lock up
>>people who are "presumed innocent"?
>>
>>The concept is deeply embedded in American beliefs, but in reality, it
>>does not seem to exist.
>
> The police who brought charges obviously thought he was guilty and
> took precautions by locking OJ away, but legally, as far as the court
> and the judge were concerned, he was presumed innocent and received
> all of the judicial protections that that implies.
>
> bob
> k5qwg
>
>
>

1263. Re: Wire wound dummy load...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:07:00 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <fE1se.93$Ua.2268270@news.sisna.com>
Source record: 74834

Hal:

Yup, maybe... I'd still go a 10 watt resistor, with my luck some rf
would manage to get to the other end... lol

Warmest regards,
John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:N_0se.102062$8S5.50638@bignews3.bellsouth.net...
> OR - Here is where some very lossy coax could come in handy - Put a
> half-watt 50-ohm resistor at the end of a looooong run of lossy coax.
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:qbOre.230$G_.17487933@news.sisna.com...
>> Hal:
>>
>> It may radiate, it may have a high swr on the cable feeding it... I
>> just needed to dump 250 watts quickly and didn't have enough time to
>> construct a "dummy load antenna" everyone is so anxious to speak of
>> here...
>>
>> besides, unless you have a damn 50 ohm resistor across your coax--you
>> only think that 50 ohm antenna load is all resistive!
>>
>> Warmest regards,
>> John
>>
>> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
>> news:LpNre.99906$8S5.10831@bignews3.bellsouth.net...
>> > And what about ELI the ICE man ?
>> > If you have a "L" then "E" leads "I", so I understand.
>> > But suppose then you have another "L", and another, and another.
>> > If "E" keeps leading "I" , then is "I" just slowing down for a
>> > cycle
>> > at the
>> > "L" ?
>> > -- in udder words - I'd druther keep the dummy load resistive *****
>> > I wonder if that resistance wire in the toaster would work as a
>> > dummy
>> > load -
>> > go ahead and try it - you can toast bread on the new dummy load.
>> >
>> >

>> > "John Smith" <assemblywizard@gmail.com> wrote in message
>> > news:IJLre.217$GF6.15480927@news.sisna.com...
>> >> Never mind, just dropped a so-239 on an old gallon can and wired
>> >> it
>> >> up--seems to work great, but haven't checked the swr on the
>> >> outside
>> >> of
>> >> the can yet... <grin>
>> >>
>> >> John
>> >>
>> >> "John Smith" <assemblywizard@gmail.com> wrote in message
>> >> news:dhKre.202$Dm4.14664776@news.sisna.com...
>> >> >I need to come up with a dummy load for a 250+ watt xmitter.
>> >> >
>> >> > IF I take two 100 watt wire wound resistors in parallel (for 50
>> >> > ohms)
>> >> > and put them in a can full of silicone oil and feed it though an
>> >> > L-Match should it work?
>> >> >
>> >> > Warmest regards,
>> >> > John
>> >> > --
>> >> > Watching the cutting edge of yesterday replay--in virtual
>> >> > reality,
>> >> > right before my eyes--in real time!
>> >> > Thirty year old technology--wasn't it amazing?
>> >> >
>> >> >
>> >>
>> >>
>> >
>> >
>>
>>
>
>

1264. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:13:31 UTC
From: Moto579 <ryanmeg@adelphia.net>
Message-ID: <SfidnbPMKZKDNS3fRVn-qw@adelphia.com>
Source record: 74828

From 10 to 100 miles preferably the latter
My elevation is 1500 ft
Tower is at 5000ft
Clear line of site
Vertical polarity
Feeding to aYaesu FT-50rd 5 watt HT

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:d1d15$42b0a392$97d55d24$23435@ALLTEL.NET...
> How far away is the station you are trying to receive? What is it's
> elevation, and yours? What obstacles are between you and the station of
> interest? What are you feeding the antenna output to? What is the polarity
> of the signal from the distant station?
>
> There are a gazillion yagi antenna designs. First let us know what you are
> trying to accomplish, that will determine the best design for your
> particular need.
>
> You have the necessary stuff for a solution, once the needs are defined.
>
>
> "Moto579" <ryanmeg@adelphia.net> wrote in message
> news:1cCdnRPTa-RuPS3fRVn-vw@adelphia.com...
>> I would like to build a yagi for 448 mhz rangr for home use I have a 12
> foot
>> 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>> think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
> line
>> as a feed line? All the plans I have found are for 50 ohm feedlines. It
> is
>> all I have for wire and living out in the boonies it is difficult to
> travel
>> to pick up some 50 ohm.
>>
>> I'm on a budget / disabled and would appreciate any help/
>> knowledge/links/donations on this.
>> I own the ARRL Antenna book 20th edition and find it to be a bit
>> overwhelming so far.
>>
>>
>> Cheers,
>> Ryan
>>
>>

>
>

1265. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:19:04 UTC
From: Moto579 <ryanmeg@adelphia.net>
Message-ID: <RN2dnYeOm_PDNC3fRVn-2A@adelphia.com>
Source record: 74829

Mainly I would like to use this on a 8 foot boom for somewhat portable use
feedline is 25 feet long

"Moto579" <ryanmeg@adelphia.net> wrote in message
news:SfidnbPMKZKDNS3fRVn-qw@adelphia.com...
> From 10 to 100 miles preferably the latter
> My elevation is 1500 ft
> Tower is at 5000ft
> Clear line of site
> Vertical polarity
> Feeding to aYaesu FT-50rd 5 watt HT
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:d1d15$42b0a392$97d55d24$23435@ALLTEL.NET...
>> How far away is the station you are trying to receive? What is it's
>> elevation, and yours? What obstacles are between you and the station of
>> interest? What are you feeding the antenna output to? What is the
>> polarity
>> of the signal from the distant station?
>>
>> There are a gazillion yagi antenna designs. First let us know what you
>> are
>> trying to accomplish, that will determine the best design for your
>> particular need.
>>
>> You have the necessary stuff for a solution, once the needs are defined.
>>
>>
>> "Moto579" <ryanmeg@adelphia.net> wrote in message
>> news:1cCdnRPTa-RuPS3fRVn-vw@adelphia.com...
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>>> 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>>> think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
>> line
>>> as a feed line? All the plans I have found are for 50 ohm feedlines.
>>> It
>> is
>>> all I have for wire and living out in the boonies it is difficult to
>> travel
>>> to pick up some 50 ohm.
>>>
>>> I'm on a budget / disabled and would appreciate any help/

>>> knowledge/links/donations on this.
>>> I own the ARRL Antenna book 20th edition and find it to be a bit
>>> overwhelming so far.
>>>
>>>
>>> Cheers,
>>> Ryan
>>>
>>>
>>
>>
>
>

1266. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:33:22 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <S02se.5863$pa3.1743@newsread2.news.atl.earthlink.net>
Source record: 74830

"Moto579" <ryanmeg@adelphia.net> wrote in message
news:1cCdnRPTa-RuPS3fRVn-vw@adelphia.com...
> I would like to build a yagi for 448 mhz rangr for home use I have a 12
foot
> 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
> think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
line
> as a feed line? All the plans I have found are for 50 ohm feedlines. It
is
> all I have for wire and living out in the boonies it is difficult to
travel
> to pick up some 50 ohm.

Don't worry about the 50 or 75 ohm feedline. Just build the antenna and
feed it with what you have. If you build an antenna with a matching section
and have a good swr meter calibrated to 75 ohms you can match it.
If you don't have a meter you will have to take whatever you get.

1267. Re: Delusions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:50:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8qbbj$3t$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74831

Roy,
> It sounds like you're saying that when presented with computed
results
> we have no recourse but to put faith in the programmer. That's not
at
> all so. We have to test the results against measurements or other
> calculations and resolve the differences before we can put much
faith in
> any model or program.
>
> With the rest, I agree.
>
==========

Roy, put a new battery in your hearing aid. ;o)

The danger of putting much faith in the programmer is that he may belong to same set of old wives as the measurer and therefore make the same mistakes. Misconceptions are known to be popular. The two sets of incorrect results, measured and computed, then fatally agree with each other due to the correlation.

It's impossible for a program to be more reliable than the programmer. It can only be worse.

Your use of the word "before" implies a time span. The reliability of anything accumulates with experience, use and TIME. (Don't anybody mention bath tubs).

Reliability is Quality vs Time.

And Quality, in engineering terms, is the degree of conformance to specified requirements. Or, in more worldly terms as may be applied to computer programs, the fitness for the intended purpose.

Thus we can say that the accuracy of Eznec, etc., as determined over a number of years, is highly fit for its intended purposes.

Reg, G4FGQ

1268. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 22:57:18 UTC
From: Moto579 <ryanmeg@adelphia.net>
Message-ID: <6-ydneE4xbTMLy3fRVn-gw@adelphia.com>
Source record: 74832

I have no meter other than the bars on the ht and a good multimeter.
Is this on track?
I split the driven and leave how much room between the two pieces?
Will 10 gauge wire make a big difference between from the below specs?
70 Centimeter 4 element beam center frequency 440 MHz

70 Centimeter 4 element beam
1/8" diameter tubing
Element Length
Element spacing
from Reflector

Reflector
13"
*****

Driven
12"
8-1/16"

Director 1
11-7/8"
16-3/4"

Director 2
11-3/4"
23-3/8"

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:S02se.5863$pa3.1743@newsread2.news.atl.earthlink.net...
>
> "Moto579" <ryanmeg@adelphia.net> wrote in message
> news:1cCdnRPTa-RuPS3fRVn-vw@adelphia.com...
>> I would like to build a yagi for 448 mhz rangr for home use I have a 12
> foot
>> 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>> think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
> line
>> as a feed line? All the plans I have found are for 50 ohm feedlines. It
> is
>> all I have for wire and living out in the boonies it is difficult to
> travel
>> to pick up some 50 ohm.
>
> Don't worry about the 50 or 75 ohm feedline. Just build the antenna and
> feed it with what you have. If you build an antenna with a matching section

> and have a good swr meter calibrated to 75 ohms you can match it.
> If you don't have a meter you will have to take whatever you get.
>
>

1269. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 23:10:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b1db27pfh40d6@corp.supernews.com>
Source record: 74835

Buck wrote:
>
> Thanks, I reinstalled it. I had to uninstall everything and then
> install ARRL first before it would work. Now, however, I have a
> problem placing the folders where I want them. Is there a way to do
> this?
> . . .

Click Help, then Contents. This opens the EZNEC manual. Click the Index tab (key icon), then type "folders" (without the quotation marks) into the text box, or scroll down until you see "Folders".

You'll find the answers to most of your questions in the manual.

Roy Lewallen, W7EL

1270. Re: EZNEC ARRL and EZNEC 4 Demo: Setting default folders

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 23:12:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b1df7gceirv28@corp.supernews.com>
Source record: 74836

See my posting under "Re: 80 Meter Horizontal Loop".

Roy Lewallen, W7EL

Buck wrote:
> I completely uninstalled and reinstalled eznec 4 demo and the ARRL
> version (3). I reinstalled them, ARRL version first and then demo 4.
>
> I took the time to move my data folders to a separate drive and to set
> the folder settings on the programs to point to those folders.
> However, when I start back up, the program goes back to the default
> and I have to manually redirect it.
>
> I looked in the ini file but there was nothing there.
>
> Any way to correct this?

1271. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 23:19:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b1dt5t92t1079@corp.supernews.com>
Source record: 74837

Buck wrote:
> . . .
> Thank you Gary, I have been looking at it a bit. I decided the best
> way to get an accurate reading for the highest gain is to look at the
> elevation and then set the azimuth elevation to the TOA.

But what you're probably really interested in is the gain in the angle you'll be using for communication. Who cares what the maximum gain of the antenna is if that gain only occurs in directions (azimuth or elevation) you're not using for communication?

First, decide what elevation angles will be used for communication. One way to find that is by using a propagation program like W6ELProp (which is free). Look at the gain at those angles with EZNEC. The elevation angle at which the gain is maximum is of very little practical use -- EZNEC reports it only because a lot of people wanted it (for reasons which remain mysterious to me).

Roy Lewallen, W7EL

1272. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-15 23:30:42 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ca525$42b0ba23$97d55d24$4351@ALLTEL.NET>
Source record: 74838

QFU K

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pC1se.92$np7.2216067@news.sisna.com...
> Bob:
>
> But look at the difference in the quality of analytical minds at
> play--many police are barely above brain dead--big hulks we use for
> muscle, or ex-marines trained to do-do in a corner when commanded...

1273. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 00:11:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ot3se.122$6C6.1991783@news.sisna.com>
Source record: 74841

lol... oh no, a cop huh?

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:ca525$42b0ba23$97d55d24$4351@ALLTEL.NET...
> QFU K
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:pC1se.92$np7.2216067@news.sisna.com...
>> Bob:
>>
>> But look at the difference in the quality of analytical minds at
>> play--many police are barely above brain dead--big hulks we use for
>> muscle, or ex-marines trained to do-do in a corner when commanded...
>
>

1274. Re: EZNEC ARRL and EZNEC 4 Demo: Setting default folders

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 00:33:11 UTC
From: Buck <iam@this.site>
Message-ID: <k5i1b1hckhi4ntp4v3t2u6pqrfs2qo5u37@4ax.com>
Source record: 74839

On Wed, 15 Jun 2005 16:12:34 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>See my posting under "Re: 80 Meter Horizontal Loop".
>
>Roy Lewallen, W7EL
>
>Buck wrote:
>> I completely uninstalled and reinstalled eznec 4 demo and the ARRL
>> version (3). I reinstalled them, ARRL version first and then demo 4.
>>
>> I took the time to move my data folders to a separate drive and to set
>> the folder settings on the programs to point to those folders.
>> However, when I start back up, the program goes back to the default
>> and I have to manually redirect it.
>>
>> I looked in the ini file but there was nothing there.
>>
>> Any way to correct this?
Thank you, I found it as per your instructions.

--
73 for now
Buck
N4PGW

1275. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 00:55:58 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <v3j1b15f6okd7ss7cq02unnnbjo26r0hra@4ax.com>
Source record: 74840

On Wed, 15 Jun 2005 15:05:03 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Bob:
>
>But look at the difference in the quality of analytical minds at
>play--many police are barely above brain dead--big hulks we use for
>muscle, or ex-marines trained to do-do in a corner when commanded...
>
>The judges have proven some IQ and mental powers before being granted a
>seat...
>
>John

Well, I wouldn't characterize all cops as brain dead, besides, I
believe it is the attorneys in the DA's office who actually bring
charges. And, yes, it is their job to promote the perceived guilt of
the defendant, but otherwise, you would not have a court case. Nor is
that the same as saying someone is perceived guilty until proven not
so. It is the DA's job to overcome a perceived, legal innocence, in
the courtroom, of the defendant.

I'm getting bored... back to SWR.

bob
k5qwg

>
>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:ht71b153vodjf6fgsujkqjnk0c8pjihk5v@4ax.com...
>> On Wed, 15 Jun 2005 09:36:53 -0700, Bill Turner <noway@nohow.com>
>> wrote:
>>
>>>On Tue, 14 Jun 2005 19:48:04 GMT, Bob Miller <NOSPAM@neosoft.com>
>>>wrote:
>>>
>>>>Amendments V and VI describe a process that would be meaningless
>>>>unless one is presumed innocent until proven otherwise.
>>>
>>>_____
>>>
>>>If OJ was "presumed innocent until proven guilty", why was he kept in
>>>jail for one whole year before and during his trial? Do we lock up
>>>people who are "presumed innocent"?
>>>
>>>The concept is deeply embedded in American beliefs, but in reality, it

>>>does not seem to exist.
>>
>> The police who brought charges obviously thought he was guilty and
>> took precautions by locking OJ away, but legally, as far as the court
>> and the judge were concerned, he was presumed innocent and received
>> all of the judicial protections that that implies.
>>
>> bob
>> k5qwg
>>
>>
>>
>

1276. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 01:10:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Ak4se.125$rU.2291859@news.sisna.com>
Source record: 74842

Bob:

Yeah, that remark of mine did NOT make allowances for those just stuck
there because of circumstances ...

... and, the convo is pretty much over when you have been asked to go
away... <frown>

Warmest regards,
John

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:v3j1b15f6okd7ss7cq02unnnbjo26r0hra@4ax.com...
> On Wed, 15 Jun 2005 15:05:03 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Bob:
>>
>>But look at the difference in the quality of analytical minds at
>>play--many police are barely above brain dead--big hulks we use for
>>muscle, or ex-marines trained to do-do in a corner when commanded...
>>
>>The judges have proven some IQ and mental powers before being granted
>>a
>>seat...
>>
>>John
>
> Well, I wouldn't characterize all cops as brain dead, besides, I
> believe it is the attorneys in the DA's office who actually bring
> charges. And, yes, it is their job to promote the perceived guilt of
> the defendant, but otherwise, you would not have a court case. Nor is
> that the same as saying someone is perceived guilty until proven not
> so. It is the DA's job to overcome a perceived, legal innocence, in
> the courtroom, of the defendant.
>
> I'm getting bored... back to SWR.
>
> bob
> k5qwg
>
>
>>
>>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>>news:ht71b153vodjf6fgsujkqjnk0c8pjihk5v@4ax.com...

>>> On Wed, 15 Jun 2005 09:36:53 -0700, Bill Turner <noway@nohow.com>
>>> wrote:
>>>
>>>>On Tue, 14 Jun 2005 19:48:04 GMT, Bob Miller <NOSPAM@neosoft.com>
>>>>wrote:
>>>>
>>>>>Amendments V and VI describe a process that would be meaningless
>>>>>unless one is presumed innocent until proven otherwise.
>>>>
>>>>_____
>>>>
>>>>If OJ was "presumed innocent until proven guilty", why was he kept
>>>>in
>>>>jail for one whole year before and during his trial? Do we lock up
>>>>people who are "presumed innocent"?
>>>>
>>>>The concept is deeply embedded in American beliefs, but in reality,
>>>>it
>>>>does not seem to exist.
>>>
>>> The police who brought charges obviously thought he was guilty and
>>> took precautions by locking OJ away, but legally, as far as the
>>> court
>>> and the judge were concerned, he was presumed innocent and received
>>> all of the judicial protections that that implies.
>>>
>>> bob
>>> k5qwg
>>>
>>>
>>>
>>
>

1277. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 02:05:40 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <U75se.49775$wr.1800@clgrps12>
Source record: 74843

"John Smith" <assemblywizard@gmail.com> wrote in message
news:bU%re.75$dg6.1795224@news.sisna.com...
> Frank:
>
> Lol, it is catching huh?
>
> Almost without doubt, what was tearing up my am radio was the signal being
> fed on the B+ rail (~1Mhz run by a "chopped" supply--and most likely
> leaking some signal onto the house mains--I am guilty of not making those
> suspicions clear)... however, their intent was to jam wireless
> wans/lans--from what I heard--they were/are more than successful...
>
> I know there was great experimentation here in trying to get a microwave
> magnetron "rock stable"--when that failed it lead to the "other"
> experimentation...
>
> Just in case there is something to this--be careful when and where you
> operate it...I think it just might surprise you...
>
> Warmest regards,
> John

When the microwave oven is running it interferes with my 200 kHz (conducted over house wiring) intercom system (Rat Shack). I suspected that it was noise from the power supply, and not the actual magnetron. I am still inclined to believe that the selectivity of the magnetron cavities will limit the modulated spectrum, not to mention the waveguide cut-off frequency. If I get a chance I will look more carefully at the RF output on a spectrum analyzer.

As for magnetron frequency stability and phase noise performance, I remember COHO/STALO MTI RADAR, and thought that the magnetron was stabilized. This is not true, as explained in http://www.alphalpha.org/radar/coho_e.html

The only way I can conceive of stabilizing is by the use of a tunable magnetron and AFC system. Then there is also the possibility of injection locking.

73,

Frank

1278. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 02:35:40 UTC
From: Kingfish Stevens <nospam@nospam.net>
Message-ID: <99p1b15thb0g9pf3790usatdi46l7efu8l@4ax.com>
Source record: 74844

Considering the materials you have to work with, do a Google search on
"quagi antenna". Simple to build and no matching problems.
Kingfish

On Wed, 15 Jun 2005 14:43:13 -0700, "Moto579" <ryanmeg@adelphia.net>
wrote:

>I would like to build a yagi for 448 mhz rangr for home use I have a 12 foot
>1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm line
>as a feed line? All the plans I have found are for 50 ohm feedlines. It is
>all I have for wire and living out in the boonies it is difficult to travel
>to pick up some 50 ohm.
>
>I'm on a budget / disabled and would appreciate any help/
>knowledge/links/donations on this.
>I own the ARRL Antenna book 20th edition and find it to be a bit
>overwhelming so far.
>
>
>Cheers,
>Ryan
>

1279. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 02:58:36 UTC
From: Moto579 <ryanmeg@adelphia.net>
Message-ID: <vc6dnRSzKOdCdy3fRVn-2g@adelphia.com>
Source record: 74845

Appreciate it

"Kingfish Stevens" <nospam@nospam.net> wrote in message
news:99p1b15thb0g9pf3790usatdi46l7efu8l@4ax.com...
> Considering the materials you have to work with, do a Google search on
> "quagi antenna". Simple to build and no matching problems.
> Kingfish
>
> On Wed, 15 Jun 2005 14:43:13 -0700, "Moto579" <ryanmeg@adelphia.net>
> wrote:
>
>>I would like to build a yagi for 448 mhz rangr for home use I have a 12
>>foot
>>1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>>think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
>>line
>>as a feed line? All the plans I have found are for 50 ohm feedlines. It
>>is
>>all I have for wire and living out in the boonies it is difficult to
>>travel
>>to pick up some 50 ohm.
>>
>>I'm on a budget / disabled and would appreciate any help/
>>knowledge/links/donations on this.
>>I own the ARRL Antenna book 20th edition and find it to be a bit
>>overwhelming so far.
>>
>>
>>Cheers,
>>Ryan
>>
>

1280. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 03:13:21 UTC
From: nm5k@wt.net
Message-ID: <1118891601.832206.180350@g44g2000cwa.googlegroups.com>
Source record: 74847

And even if you found a super laboratory scale
that actually could measure the mite departing, I would STILL
say the event does not matter. Your mileage may vary, of course.

Yes it varies a good deal...I'm not willing to throw away 3-4 S units
worth of low angle gain in the case of the ringo ranger.
It would take many mites to make up the difference.
Of course, the degree would vary to each persons
feedline. I was using about 50 ft.

Last but not least, if someone posts valid data showing that the
performance of an OSJ J-pole can be measurably, repeatably,
and significantly improved by a decoupling device, I'll be grateful
to him/her!

I've tested it, but I didn't collect data, other than in my head.
But there is no doubt that adding decoupling would make
the performance the same for any user. This will not be the
case without it. All decoupling will do is make sure you
get the gain you are supposed to. It's not going to help an
antenna that has little common mode problem to begin
with.

I suppose Al would have to have a poll....If the owners were
interested in the test...I don't really like J poles that much,
so I know I'm not going to waste my time repeating something
I did 20 years ago...

And if the decoupling device is practical and affordable,
I'll want to know where to buy one, or how to build one.

I've already described one simple version...I've tested it,
and I know it works. There are many ways you can do it..
MK

1281. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 03:15:50 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <4kq1b1hodslo81i0drjvpcl0im28qd9lfl@4ax.com>
Source record: 74848

On Wed, 15 Jun 2005 16:27:55 -0400, Buck <iam@this.site> wrote:

>When I setup an antenna in EZNEC, I want to see the azimuth but the
>program asks for an elevation angle. WHat angle should I use? I have
>been randomly using 5 or 10 deg.

Depends. If you want to see the whole picture, use a 3D plot.

You should know that you can grab this with the mouse and change the
angle of view. By turning on the "Highlights" you can get any cut you
want on the pattern. Experiment.

For a feature rich (and free) alternative that will give you these
plots in living color see:

http://www.si-list.org/swindex2.html#4nec2_

That said, and not taking anything away from Arie's masterful work, I
recommend that you stick with EZNEC until you are more skilled at
modeling.

1282. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 03:17:34 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ror1b1tcfgdsuuf97r8n2l4urev5h71glj@4ax.com>
Source record: 74846

On Wed, 15 Jun 2005 16:19:58 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

Tsk tsk.

>EZNEC reports it only because a lot of people wanted it (for reasons
>which remain mysterious to me).

Don't you know that the customer is always right? [grin]

1283. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 05:35:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8r33gnhp1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74849

> The elevation
> angle at which the gain is maximum is of very little practical
use --
> EZNEC reports it only because a lot of people wanted it (for reasons
> which remain mysterious to me).
>
> Roy Lewallen, W7EL

==========

Roy, good to see, at last, you've got rid of this popular
misconception.

Reg.

1284. Re: Solarcon A-99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 10:40:56 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373837383542B1654899@zetnet.co.uk>
Source record: 74725

> > Hi Guys, Just been to the web site for the info on the Solarcon A-99.

> > What I now need to know is how to remove the internals intact. Question
> > is; how is the wire at the radiating end terminated in the metal
> > housing, is it soldered in or machined in? at the centre or the side?
> > Obviously the short length of coax is soldered in at the PL239 end. All
> > the joints in the first section are loose now, so I just need to remove
> > the internals to see what's happening. I don't have continuity here but
> > surely I should, even if shunt fed!! I don't want to pull too hard in
> > case I end up damaging the coils Etc. I just fancy playing on 10 or 15/P
> > if it tunes up decent enough and the bands open. Any Idea's. Cheers and
> > TIA Dave
> >
> Dave -

> The "EXPOSED" web site has that photo

> A few years ago KG6AOH wrote 2 articles on the disassembly "EXPOSED"
> of the IMAX 2000 and Solarcon Antron 99 antennas. I do not believe that he
> currently has a website with this information.

> Solarcon Antron 99 EXPOSED (Adobe Acrobat document) -
> useful for education in how antenna is constructed and possible
> repairs - if
> required
> http://www.kb8ygc.com/a99.pdf
> w9gb

Many thanks for your reply. As I said I have been on that site but
unfortunatly it dosn't show you <how> the wire is terminated at the
ends. Obviously the 239 end isn't a problem, that's terminated in the
usual way, the main problem is how is the wire removed from the other
end is so that the whole assembly can be slid out and removed. If I can
find out how to remove that wire end from the metal socket/ threaded
collar, then all remains is to slowly pull the wire down from the 239
end and Hey Presto, Bobs yer Uncle....
TIA Dave.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

1285. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 10:53:36 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <Q5idnRJXZv59xCzfRVn-qw@bright.net>
Source record: 74850

With only 4 elements as listed, the elements will take up only about 24", so if you cut the boom down to about 30" or so, you can drill 2 holes near the back end of the antenna for a U-Bolt to mount it on a pipe or whatever. This should be a pretty portable antenna. Feedline length is not important, so use what you have.

Scott

Moto579 wrote:
> Mainly I would like to use this on a 8 foot boom for somewhat portable use
> feedline is 25 feet long
>
>

>
>

1286. Everybody likes Free software [radio & electronics related]

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 11:54:27 UTC
From: William Taylor <zach56@bellsouth.net>
Message-ID: <11q2b1l4erpgdqobnvcs9u9rvtnjlpui6a@4ax.com>
Source record: 74851

http://www.tech-systems-labs.com/freesoftware.htm

http://www.tonnesoftware.com/

http://www.vnahelp.com/products.html

1287. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 12:12:08 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <FKSdndOZe4qR8CzfRVn-jg@comcast.com>
Source record: 74853

Bob Miller wrote:

>SNIPPED

> I'm getting bored... back to SWR.
>
> bob
> k5qwg
>
>

Ah !!! Good ol' SWR [S]hort [W]ave [R]adio

Or, am I missing sumptin ?

1288. Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 12:13:05 UTC
From: wb5cys <wb5cys@sbcglobal.net>
Message-ID: <l1ese.2290$ks4.1268@newssvr12.news.prodigy.com>
Source record: 74852

Considering a wire dipole (or inverted V) does bending the end of a leg back and wrapping it around itself electrically shorten the antenna or must it be cut in order to change the resonant frequency?

1289. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 13:12:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ffidnX40hoZO5yzfRVn-vQ@crocker.com>
Source record: 74854

if it is insulated wire it must be cut, if its not then it doesn't. though
you will see some effect of folding it back even with insulated wire it
won't be the same as cutting the wire shorter.

"wb5cys" <wb5cys@sbcglobal.net> wrote in message
news:l1ese.2290$ks4.1268@newssvr12.news.prodigy.com...
> Considering a wire dipole (or inverted V) does bending the end of a leg
> back and wrapping it around itself electrically shorten the antenna or
> must it be cut in order to change the resonant frequency?
>

1290. Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 13:25:45 UTC
From: Adrian Scripca YO8SSW <benishor@gmail.com>
Message-ID: <1118928345.326491.250040@g47g2000cwa.googlegroups.com>
Source record: 74855

Hi guys,

I started a topic regarding magloop antennas few weeks ago asking about ways to replace the ferite coupling method. Some hams, to whom I deeply thank, have replied to the topic and provided some valuable insights on the matter.

Since then I managed to "build" an acceptable antenna. The only problem with it is that it doesn't work. yet, that is. HI!

Here's what happens : the moment I plug it into the FT100 (both wires, not only the central conductor) I get silent background (low level noise) as if it had no antenna at all. An uneducated guess of mine would be that maybe the feeder shorts *before* the coupling loop.

Here's a link to a page describing the way I did it which contains a small picture gallery of various parts. http://benny.kappa.ro/antenna/

Perhaps someone could enlighten me by providing any debugging tips and tricks. The downside is that I don't really have any specialised testing rig. I only own a multimeter, the ft100, the mfj in the picture and a soldering iron :]

Thank you for your time,

73 de YO8SSW

1291. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 13:56:24 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <de0d$42b1850b$97d55d24$29578@ALLTEL.NET>
Source record: 74856

That being the case, can I just keep folding back a 120 foot insulated wire dipole until it is say 5 or 6 foot long and it will still be resonant on the original frequency?

"Dave" <noone@nowhere.com> wrote in message news:ffidnX40hoZO5yzfRVn-vQ@crocker.com...
> if it is insulated wire it must be cut, if its not then it doesn't. though
> you will see some effect of folding it back even with insulated wire it
> won't be the same as cutting the wire shorter.
>
> "wb5cys" <wb5cys@sbcglobal.net> wrote in message
> news:l1ese.2290$ks4.1268@newssvr12.news.prodigy.com...
> > Considering a wire dipole (or inverted V) does bending the end of a leg
> > back and wrapping it around itself electrically shorten the antenna or
> > must it be cut in order to change the resonant frequency?
> >
>
>

1292. OT: Graphics for QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 14:25:24 UTC
From: Buck <iam@this.site>
Message-ID: <pl23b1ph1u8il6jvonp9aljebs7egjs0r4@4ax.com>
Source record: 74857

I am creating a new QSL card to print from my computer. I would like to have a common card with symbols for my various types of operation: Mobile, QRP, Field Portable, SSB, and CW.

I apologize for the Off Topic, but I don't see any more suitable groups that are active.

Thank you in advance.

--
73 for now
Buck
N4PGW

1293. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 14:29:26 UTC
From: richardharrison@webtv.net
Message-ID: <22486-42B18CC6-232@storefull-3253.bay.webtv.net>
Source record: 74858

Adrian, YO8SSW wrote:
"The only problem with it is that it doesn`t work yet---"

Does the main loop tune over the desired range using your tuning
caoacitor, without the coupling loop, as seen with a dip meter?

Best regards, Richard Harrison, KB5WZI

1294. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 14:36:50 UTC
From: Anchor <anchorelectronics@sympatico.ca>
Message-ID: <pan.2005.06.16.14.36.50.257101@sympatico.ca>
Source record: 74861

Reading the responses, some valid, some not*, I guess the best
thing to try is:

o illuminate a surplus TVRO 12 ft dish with the magnetron
- collect and focus side lobes
- 36+ dbi gain
o use a regulated power supply the decrease the bandwidth
o use some form of bandpass filtering such as cavity resonators
o point the thing at the moon and listen for echos
o experiment using it as a ground mapping radar

I vaguely recall seeing something in a late 80's (?) magazine, may
be 73 or CQ VHF, that built a digital data link from a pair of 2 mbit
PC network cards and a magnetron.

* FYI:
o GSM cell phone bands = 850/1900 MHz for the Americas,
900/1850 MHz outside the Americas, not 2.4 GHz.
o microwave ovens with the door closed already interfere with
most 2.4 GHz ISM band FCC Part 15 devices in close proximity

1295. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 14:42:10 UTC
From: Buck <iam@this.site>
Message-ID: <6k33b1t957vld5eb586p1nvgo1af8o5uto@4ax.com>
Source record: 74859

On Thu, 16 Jun 2005 09:56:24 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>That being the case, can I just keep folding back a 120 foot insulated wire
>dipole until it is say 5 or 6 foot long and it will still be resonant on
>the original frequency?
>
>"Dave" <noone@nowhere.com> wrote in message
>news:ffidnX40hoZO5yzfRVn-vQ@crocker.com...
>> if it is insulated wire it must be cut, if its not then it doesn't.
>though
>> you will see some effect of folding it back even with insulated wire it
>> won't be the same as cutting the wire shorter.

No one said it would be resonant on the SAME frequency, just that
there will be some effect. I have heard about an antenna design for a
shortened dipole using 3-conductor home electrical wire. At one end,
the green is connected to the cobra-head and the black and white wires
are soldered together. At the other end, the black is soldered to the
green. Viola -- a linear loaded dipole!

I haven't tried it, but if it works, you may very well get your
desired frequency with folded wire. I would strongly suspect it will
be a compromise antenna as opposed to one with a gain, though.

--
73 for now
Buck
N4PGW

1296. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 14:44:15 UTC
From: Jer <listme@listme.dsbl.org>
Message-ID: <3fgse.43404$ya2.41607@tornado.socal.rr.com>
Source record: 74860

Wouldn't this 'gain' be useful in figuring out just where you could dump your maximum signal somewhere in the world? It might not be where you want, but at least you might have an idea of where you would stick a loud signal using max gain at some elevation angle? Or is this a totally useless idea? I don't pretend to know what I'm talking about here, but it seems logical that by using this type of data it would help you figure out where you were going to put in a stronger signal.

Shields up!

Jer

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:d8r33gnhp1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>> The elevation
>> angle at which the gain is maximum is of very little practical
> use --
>> EZNEC reports it only because a lot of people wanted it (for reasons
>> which remain mysterious to me).
>>
>> Roy Lewallen, W7EL
>
> ============================
>
> Roy, good to see, at last, you've got rid of this popular
> misconception.
> ----
> Reg.
>
>

1297. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 15:11:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b1979a$1_1@spool9-west.superfeed.net>
Source record: 74862

Cecil Moore wrote:

> Ian White GM3SEK wrote:
>> Well, there it is. Cecil, if you still see any of this as an ego
>> thing, or merely "defending a friend"... then you haven't understood a
>> single word.
>
> And here's your chance to back up those elegant words.
> Here's a repeat of Roy's example:
>
> 100v
> source--x----1/2WL 50 ohm feedline----+--200 ohm load
> 50 ohm
>
> A 50 ohm SWR meter measures 4:1 at point 'x'. Roy says:
> "But there's a Z0 match at the source in my example."
> What do you say?

Ian, by your lack of a response, it seems that your elegant
words were not put into practice.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1298. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 15:30:20 UTC
From: Dan Richardson <k6mhe>
Message-ID: <b743b1ptg7olijgk6jf346a58vtgra77ph@4ax.com>
Source record: 74863

On Mon, 13 Jun 2005 22:54:01 GMT, "Old Ed"
<eXseniorsDeleteThisAndTheX@earthlink.net> wrote:

>Don't let the nay-sayers in this NG bother you, and don't waste
>your time arguing with them.
>
>Some of them can't stand the thought that any antenna which differs
>from their personal pet(s) might be good. Others can't grasp the
>idea that when model predictions and actual results differ, it's the
>results that count.

Spoken like a true naif.

I suggest that you would take the time to learn what causes common mode current to be present on coax transmission line - regardless of what kind of an antenna it is employed. (For openers I suggest you start here http://www.w2du.com/r2ch21.pdf)

Then, after getting a grasp on that aspect continue to learn how common mode current on the transmission line can effect the overall performance of an antenna's radiation pattern - especially with VHF & UHF antenna systems then you just might understand what people here are trying to tell you.

However, I doubt that you would do that as it would appear you've made up your mind and don't want to be confused with known facts.

>Still others can't seem to understand that effects too small
>to measure usually do not matter in the real world.

Others have measured this and reported it to you, but for some reason you chosen to discount anyone who can show that it disagrees with your "pet" theory. For me, I've place your theory along with the world is flat, the moon is made of green cheese, and Iraq has weapons of mass destruction .

But even for a skeptic, I would thing that the thought of coiling up a few turns of coax costs very little, definitely won't hurt, and can only help. Would be sufficient.

Danny, K6MHE

1299. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 15:50:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3d73b19268c16c28sf0lcjsnigoja0p64m@4ax.com>
Source record: 74864

On 16 Jun 2005 06:25:45 -0700, "Adrian Scripca YO8SSW"
<benishor@gmail.com> wrote:
>Since then I managed to "build" an acceptable antenna. The only problem
>with it is that it doesn't work. yet, that is. HI!
>
>Here's what happens : the moment I plug it into the FT100 (both wires,
>not only the central conductor) I get silent background (low level
>noise) as if it had no antenna at all. An uneducated guess of mine
>would be that maybe the feeder shorts *before* the coupling loop.

Hi Adrian,

Your pictures are quite good. However, with 25M of feeder how do you
tune up?

73's
Richard Clark, KB7QHC

1300. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 15:56:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m483b15mq68l2mbvrtbjk11ad1134i8ej5@4ax.com>
Source record: 74865

On Thu, 16 Jun 2005 10:11:14 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Ian, by your lack of a response, it seems that your elegant
>words were not put into practice.
Now let's couch that in terms of your failed Thin Film proposition:
do you judge yourself by the same standard of "lack of response?"

1301. Re: 80 Meter Horizontal Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 15:59:14 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1118937554.896540.64440@z14g2000cwz.googlegroups.com>
Source record: 74866

Buck wrote:

> As for the program, I would like to order the full version of eznec,
> but I can't possibly budget that in right now. Is there a similar
> program available without the 20 segment limit? I am thinking I saw
> one many months ago when I first tried playing with this one.

You could try 4nec2 at www.wyger.nl/usr/4nec2. If you are familiar with
EZnec, you should not have too much difficulties using 4nec2. However
both programs have their pros and contras

Success,
Arie.

1302. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 16:26:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b1a951$1_2@spool9-west.superfeed.net>
Source record: 74867

Richard Clark wrote:
> Now let's couch that in terms of your failed Thin Film proposition:
> do you judge yourself by the same standard of "lack of response?"

The logical resonse to a demand for including refraction in a
purely conceptual lossless laser reflection example is:

"Somebody Get The Net!!!"
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1303. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 16:29:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h2a3b1d3ai9q9pcqmv3q2aisa2n4e2vj24@4ax.com>
Source record: 74868

On Thu, 16 Jun 2005 11:26:49 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Richard Clark wrote:
>> Now let's couch that in terms of your failed Thin Film proposition:
>> do you judge yourself by the same standard of "lack of response?"
>
>The logical resonse to a demand for including refraction in a
>purely conceptual lossless laser reflection example is:
>
>"Somebody Get The Net!!!"
So, when judging yourself to that same standard, this is your
response? Yes, Ian did miss an opportunity to call out the net for
you.

I don't think that opportunity will be missed again. No one expects
you to correct your errors, that would be rational.

1304. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 16:39:48 UTC
From: Buck <iam@this.site>
Message-ID: <efa3b1hstumo1sp5jjtt2vfuq6ge9kdbvi@4ax.com>
Source record: 74869

On Thu, 16 Jun 2005 14:44:15 GMT, "Jer" <listme@listme.dsbl.org>
wrote:

>Wouldn't this 'gain' be useful in figuring out just where you could dump
>your maximum signal somewhere in the world? It might not be where you
>want, but at least you might have an idea of where you would stick a loud
>signal using max gain at some elevation angle? Or is this a totally useless
>idea? I don't pretend to know what I'm talking about here, but it seems
>logical that by using this type of data it would help you figure out where
>you were going to put in a stronger signal.
>
>Shields up!
>
>Jer
>

From the remarks I see on this forum and others, there appears to be a
number of people who only consider how an antenna works for DX. There
are many of us who don't just chase DX. I hunt counties and need
antennas that will cover much smaller skip than someone trying to
operate with russia from here. On late night nets, I need signals
that drown out the 40 meter sw stations and so I can hear my regional
QSOs. Other times, I would love to be able to pick out that rare DX
in the midst of a pileup of multi-kw amps and beams that have more
acreage than the average home.

If someone needs 10-20 deg TOA for a signal, then they need to know
how to maximize their antenna for that angle, that is true. I want to
know the characteristics of the antennas to know how they will work
for various purposes.

No shield needed:)

--
73 for now
Buck
N4PGW

1305. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 16:56:41 UTC
From: Jer <listme@listme.dsbl.org>
Message-ID: <dbise.44108$ya2.32031@tornado.socal.rr.com>
Source record: 74870

I'm another Ham that could care less about DX! I just want to use the proper frequency depending on the time of day/night to communicate with some friends located around the west coast. Very few DX stations will hold a rag chew, just slam bam, thank you mam, i.e. 599 OM !... ugh..

At any rate, if I knew more about my antennas characteristics I might could figure out the band/end location where it would be loudest at any given time. Is this all wet, and TOA wouldn't help in that at all?

Jer

"Buck" <iam@this.site> wrote in message news:efa3b1hstumo1sp5jjtt2vfuq6ge9kdbvi@4ax.com...
> On Thu, 16 Jun 2005 14:44:15 GMT, "Jer" <listme@listme.dsbl.org>
> wrote:
>
>>Wouldn't this 'gain' be useful in figuring out just where you could dump
>>your maximum signal somewhere in the world? It might not be where you
>>want, but at least you might have an idea of where you would stick a loud
>>signal using max gain at some elevation angle? Or is this a totally
>>useless
>>idea? I don't pretend to know what I'm talking about here, but it seems
>>logical that by using this type of data it would help you figure out where
>>you were going to put in a stronger signal.
>>
>>Shields up!
>>
>>Jer
>>
>
> From the remarks I see on this forum and others, there appears to be a
> number of people who only consider how an antenna works for DX. There
> are many of us who don't just chase DX. I hunt counties and need
> antennas that will cover much smaller skip than someone trying to
> operate with russia from here. On late night nets, I need signals
> that drown out the 40 meter sw stations and so I can hear my regional
> QSOs. Other times, I would love to be able to pick out that rare DX
> in the midst of a pileup of multi-kw amps and beams that have more
> acreage than the average home.
>
> If someone needs 10-20 deg TOA for a signal, then they need to know
> how to maximize their antenna for that angle, that is true. I want to
> know the characteristics of the antennas to know how they will work
> for various purposes.
>

> No shield needed:)
>
>
>
> --
> 73 for now
> Buck
> N4PGW

1306. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 16:58:55 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <mBRDtwfP$asCFAmV@ifwtech.co.uk>
Source record: 74872

Cecil Moore wrote:
>Cecil Moore wrote:
>
>> Ian White GM3SEK wrote:
>>> Well, there it is. Cecil, if you still see any of this as an ego
>>>thing, or merely "defending a friend"... then you haven't understood
>>>a single word.
>> And here's your chance to back up those elegant words.
>> Here's a repeat of Roy's example:
>> 100v
>> source--x----1/2WL 50 ohm feedline----+--200 ohm load
>> 50 ohm
>> A 50 ohm SWR meter measures 4:1 at point 'x'. Roy says:
>> "But there's a Z0 match at the source in my example."
>> What do you say?
>
>Ian, by your lack of a response, it seems that your elegant
>words were not put into practice.

I did indeed respond, and elegantly refused to "dance" with you.

Having never offered an opinion on that particular question, I am
certainly not going to be dragged into it now.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1307. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:05:35 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <zjise.75310$tt5.62227@edtnps90>
Source record: 74871

"Anchor" <anchorelectronics@sympatico.ca> wrote in message
news:pan.2005.06.16.14.36.50.257101@sympatico.ca...
> Reading the responses, some valid, some not*, I guess the best
> thing to try is:
>
> o illuminate a surplus TVRO 12 ft dish with the magnetron
> - collect and focus side lobes
> - 36+ dbi gain
> o use a regulated power supply the decrease the bandwidth
> o use some form of bandpass filtering such as cavity resonators
> o point the thing at the moon and listen for echos
> o experiment using it as a ground mapping radar
>
> I vaguely recall seeing something in a late 80's (?) magazine, may
> be 73 or CQ VHF, that built a digital data link from a pair of 2 mbit
> PC network cards and a magnetron.
>
> * FYI:
> o GSM cell phone bands = 850/1900 MHz for the Americas,
> 900/1850 MHz outside the Americas, not 2.4 GHz.
> o microwave ovens with the door closed already interfere with
> most 2.4 GHz ISM band FCC Part 15 devices in close proximity

The problem with the spectral width, and stability, of the magnetron limits is usefulness for low signals. As mentioned before, see http://www-personal.engin.umich.edu/~mcjz/papers/neculaes_tps04.pdf

Now I know what you are doing you might consider a "COHO/STALO" system, as used in MTI RADARs, see http://www.alphalpha.org/radar/coho_e.html With COHO/STALO, you could probably reduce the BW to near 1 Hz with digital filtering.

You may also consider applying the free-space RADAR equation, to determine the feasibility. With a nominal ERP of 4 MW you may be successful without using COHO/STALO. Try pulsing the magnetron with a very low PRF, and use an "A" scan monitor.

Regards,

Frank

1308. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:15:53 UTC
From: Buck <iam@this.site>
Message-ID: <7oc3b19vci911u6979l2ohd0mi0t4c5ap4@4ax.com>
Source record: 74873

On Thu, 16 Jun 2005 16:56:41 GMT, "Jer" <listme@listme.dsbl.org>
wrote:

>At any rate, if I knew more about my antennas characteristics I might could
>figure out the band/end location where it would be loudest at any given
>time. Is this all wet, and TOA wouldn't help in that at all?

The TOA will help in any QSO. A low TOA will tend to open you up to
DX QRM such as on 40 meters, but an NVIS with near vertical TOA will
manage more regional communications than DX. You might not even be
bothered by the 500kw SW station in Germany. Of course, the station
you talk to will also have to deal with that station.

Knowing the TOA is as beneficial as knowing where the nuls are on your
beam.

--
73 for now
Buck
N4PGW

1309. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:17:50 UTC
From: dplatt@radagast.org
Message-ID: <11b3d1upluf465b@corp.supernews.com>
Source record: 74874

In article <pan.2005.06.16.14.36.50.257101@sympatico.ca>,
Anchor <anchorelectronics@sympatico.ca> wrote:

>* FYI:

> o microwave ovens with the door closed already interfere with
> most 2.4 GHz ISM band FCC Part 15 devices in close proximity

Agreed, and it's not too surprising. The FCC doesn't regulate
microwave oven leakage, and the FDA's standard limits leakage for an
installed microwave oven to 5 milliwatts per cm^2 at a distance of 5
cm from the surface. I've read that a fairly high percentage of older
microwave ovens leak more than the standard would allow.

That level could add up pretty quickly... a watt or more of leakage
from an older microwave oven would not surprise me very much. A
15-milliwatt Part 15 device can't compete.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1310. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:21:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Syise.18$kr2.319609@news.sisna.com>
Source record: 74775

Bill:

That sounds like an excellent idea, in fact, I will fire off a few
emails to my reps and george right now... you suppose they'll read 'em?
Or, care for that matter... <frown>

Regards,
John

"Bill Turner" <noway@nohow.com> wrote in message
news:52a3b1511udqv6qifpodusd28vmvr40ufj@4ax.com...
> On Wed, 15 Jun 2005 10:02:00 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>We just need a method to make them back responsible to us...
>
> --
>
> Agreed.
>
> I would suggest we need a Constitutional amendment which allows an
> initiative process at the Federal level, much like many states have.
>
> --
> BT
>

1311. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:23:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b1b689$1_2@spool9-west.superfeed.net>
Source record: 74776

Richard Clark wrote:
> Yes, Ian did miss an opportunity to call out the net for
> you.

:-) Hopefully, someone *will* "call out the net for me"
if I am ever senile enough to demand refraction values
for a purely conceptual lossless reflection example.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1312. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:25:26 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8scnd$22p$1@news.service.uci.edu>
Source record: 74779

Richard Clark wrote:

> On Thu, 16 Jun 2005 11:26:49 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Richard Clark wrote:
>>
>>>Now let's couch that in terms of your failed Thin Film proposition:
>>>do you judge yourself by the same standard of "lack of response?"
>>
>>The logical resonse to a demand for including refraction in a
>>purely conceptual lossless laser reflection example is:
>>
>>"Somebody Get The Net!!!"
>
> So, when judging yourself to that same standard, this is your
> response? Yes, Ian did miss an opportunity to call out the net for
> you.
>
> I don't think that opportunity will be missed again. No one expects
> you to correct your errors, that would be rational.

It appears the both of you need a year of kindergarden and ego
management counseling.

1313. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:29:02 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118942942.180973.21650@g49g2000cwa.googlegroups.com>
Source record: 74777

>I suggest that you would take the time to learn what causes common
>mode current to be present on coax transmission line - regardless of
>what kind of an antenna it is employed. (For openers I suggest you
>start here http://www.w2du.com/r2ch21.pdf)
>
>Then, after getting a grasp on that aspect continue to learn how
>common mode current on the transmission line can effect the overall
>performance of an antenna's radiation pattern - especially with VHF &
>UHF antenna systems then you just might understand what people here
>are trying to tell you.

>>Still others can't seem to understand that effects too small
>>to measure usually do not matter in the real world.

>Others have measured this and reported it to you, but for some reason
>you chosen to discount anyone who can show that it disagrees with your
>"pet" theory. For me, I've place your theory along with the world is
>flat, the moon is made of green cheese, and Iraq has weapons of mass
>destruction .
>
>But even for a skeptic, I would thing that the thought of coiling up a
>few turns of coax costs very little, definitely won't hurt, and can
>only help. Would be sufficient.

>Danny, K6MHE

I said I was done with this subject, But ..... I can't take it
anymore.
Again, the Arrow Antenna OSJ Antenna does NOT need a choke balun.
By that I mean it will make no noticeable difference in performance of
this particular antenna.
(I am not lumping all VHF & UHF antennas together. I am ONLY talking
about the OSJ).
If you don't have a physical Arrow Antenna OSJ to test with and without
a balun, you don't know what you are talking about.
That goes for computer modeling also. You can't hook up a radio to
computer model.
This antenna works just fine the way it is.

By the way Danny, what is the name of your Antenna Company ?

73 Al Lowe N0IMW Arrow Antenna

1314. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:31:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b3dqv36p8dde@corp.supernews.com>
Source record: 74778

Jer wrote:
> Wouldn't this 'gain' be useful in figuring out just where you could dump
> your maximum signal somewhere in the world? It might not be where you
> want, but at least you might have an idea of where you would stick a loud
> signal using max gain at some elevation angle? Or is this a totally useless
> idea? I don't pretend to know what I'm talking about here, but it seems
> logical that by using this type of data it would help you figure out where
> you were going to put in a stronger signal.
>
> Shields up!

No, I don't think it's a useless idea, just one that hadn't occurred to me. It will indeed tell you where your signal will be strong, assuming that propagation is supported in that azimuth direction and at that elevation angle.

Roy Lewallen, W7EL

1315. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:37:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <14e3b1ldp52qf1pbi5ulk329jk9krv7uot@4ax.com>
Source record: 74781

On Thu, 16 Jun 2005 10:25:26 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>It appears the both of you need a year of kindergarden and ego
>management counseling.

Hi Jim,

Feeling like a wallflower at the dance? Lighten up and you may get
more dates.

73's
Richard Clark, KB7QHC

1316. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:38:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b3e8is1h96p13@corp.supernews.com>
Source record: 74780

Jer wrote:
> I'm another Ham that could care less about DX! I just want to use the
> proper frequency depending on the time of day/night to communicate with some
> friends located around the west coast. Very few DX stations will hold a rag
> chew, just slam bam, thank you mam, i.e. 599 OM !... ugh..
>
> At any rate, if I knew more about my antennas characteristics I might could
> figure out the band/end location where it would be loudest at any given
> time. Is this all wet, and TOA wouldn't help in that at all?

The TOA isn't the way to get that information. What you need to do is, first, find out what elevation angle will be used for communication on each band at the time(s) of day of interest. Again, something like W6ELProp is good for doing that. Second, since you're interested in having the strongest signal, look at the signal strength reported by W6ELProp or other propagation program at each of those times. Next, use EZNEC to look at the gain of your antenna at the elevation angles you found with the propagation program. Finally, add the antenna gain to the signal strength reported by the propagation program at each band and time. The largest number will give you the best signal. This of course comes with the caution that propagation prediction is generally much less accurate than antenna pattern calculation, so there can be a lot of variability in the accuracy of the results.

I think that if you go through this exercise a few times, you won't find much correlation between your results and the TOA.

Roy Lewallen, W7EL

1317. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 17:41:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b3ee5tjvk2j82@corp.supernews.com>
Source record: 74782

Buck wrote:
>
> The TOA will help in any QSO. A low TOA will tend to open you up to
> DX QRM such as on 40 meters, but an NVIS with near vertical TOA will
> manage more regional communications than DX. You might not even be
> bothered by the 500kw SW station in Germany. Of course, the station
> you talk to will also have to deal with that station.
>
> Knowing the TOA is as beneficial as knowing where the nuls are on your
> beam.
>

That's a good and perfectly valid point. Knowing the TOA would be useful in determining what range of distances you're most likely to encounter QRM from.

Roy Lewallen, W7EL

1318. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 18:14:47 UTC
From: Adrian Scripca YO8SSW <benishor@gmail.com>
Message-ID: <1118945687.729187.38260@g49g2000cwa.googlegroups.com>
Source record: 74784

Hi Richard and thank you for your reply.

Forgive my lameness, but does the size of the feeder have such a big impact upon the antenna's performance especially when it's shielded coax cable ?

1319. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 18:16:05 UTC
From: Adrian Scripca YO8SSW <benishor@gmail.com>
Message-ID: <1118945765.537253.53100@g47g2000cwa.googlegroups.com>
Source record: 74783

Hi there Richard,

as I stated before I don't have any testing rig besides what I
described above so no, I didn't get a chance to run a dipmeter on it

1320. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 18:39:39 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8sh2j$58h$1@news.service.uci.edu>
Source record: 74786

Richard Clark wrote:

> On Thu, 16 Jun 2005 10:25:26 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>>It appears the both of you need a year of kindergarden and ego
>>management counseling.
>
>
> Hi Jim,
>
> Feeling like a wallflower at the dance?

More like a fly in the oinment......or a turkey in the straw, perhaps. ;-)

> Lighten up and you may get
> more dates.

They're not quite in season yet.

1321. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 18:44:19 UTC
From: "mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com>
Message-ID: <1118947459.156931.132430@g44g2000cwa.googlegroups.com>
Source record: 74785

gb wrote:
> Mike -
>
> VERY USEFUL INFORMATION.
>
> Yes, fiberglass is worthless for the required ground plane of a 1/4 wave UHF
> antenna - and requires additional materials.
> PCTEL based in the Chicago area is a major antenna mfg. and suppliers (e.g.
> MAXRAD, Antenna Specialists).
>
> They have 2 suitable products specifically made for fiberglass body vehicles
> and antenna mounting (Page 44 of their catalog)
> http://www.antenna.com/lm_cat/pdf/lmr_catalog.pdf
> Ground Plane Kit Model K-67
>
> Ground plane kit for fiberglass-bodied vehicles. Complete with instructions
> and sufficient adhesive backed foil for one low-band/high-band or six UHF
> ground planes (3 inches x 44 ft). Includes metal clips for circuit
> continuity.
>
> Ground Plane Disk Model K-332
>
> Provides ground plane for fiberglass-bodied vehicles.
>
> THIS NEEDS TO BE ADDED TO THE "BILL of MATERIALS that you are ordering from
> the "local company" supplying the radio and antenna materials
>
> ======================================
>
> Greg, w9gb

Thanks, Greg.

I've printed out their catalog and noted the products you suggested.

Yesterday afternoon I had an opportunity to examine our busses more closely and found a couple different types of antennas in use. Several look very much like the ASPRD1610 shown in the catalog. The others look like the ASP-7654, but perhaps with a different base. I have always understood that when it comes to antennas, the longer they are the better(in general). The short ones appear to be between 4-6 inches in length. There is some variation in their lengths. Given their varied mounting locations on the busses combined with what I learned yesterday about how things have been done here, I can only assume that very little is actually "right". At this point, I'm not very confident that

the local supplier pre-cut the antennas, although they may well have. A phone call will answer that.

As an aside, this particular company appears to make little if any investment in their people. The manager here must get prior approval from the regional manager to purchase string for the weed-eater. This may well help explain why there has been no service contract in place, nor has there been any attempt to fix the problem(s) with the radios. This makes me think that other than our remounting the antennas properly and cleaning connections there may be little we can do. Perhaps that will be enough to get our communications to a point of being adequate for our needs.

Anyway, thanks for the information. I'll let you know what we find.

Mike

1322. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 18:53:32 UTC
From: Dan Richardson <k6mhe>
Message-ID: <7rg3b15dauh0nk633enps7o57d7evkpko3@4ax.com>
Source record: 74787

On 16 Jun 2005 10:29:02 -0700, "Al" <Arrow146@aol.com> wrote:

>>I suggest that you would take the time to learn what causes common
>>mode current to be present on coax transmission line - regardless of
>>what kind of an antenna it is employed. (For openers I suggest you
>>start here http://www.w2du.com/r2ch21.pdf)
>>
>>Then, after getting a grasp on that aspect continue to learn how
>>common mode current on the transmission line can effect the overall
>>performance of an antenna's radiation pattern - especially with VHF &
>>UHF antenna systems then you just might understand what people here
>>are trying to tell you.
>
>>>Still others can't seem to understand that effects too small
>>>to measure usually do not matter in the real world.
>
>>Others have measured this and reported it to you, but for some reason
>>you chosen to discount anyone who can show that it disagrees with your
>>"pet" theory. For me, I've place your theory along with the world is
>>flat, the moon is made of green cheese, and Iraq has weapons of mass
>>destruction .
>>
>>But even for a skeptic, I would thing that the thought of coiling up a
>>few turns of coax costs very little, definitely won't hurt, and can
>>only help. Would be sufficient.
>
>>Danny, K6MHE
>
>I said I was done with this subject, But .... I can't take it
>anymore.
>Again, the Arrow Antenna OSJ Antenna does NOT need a choke balun.
>By that I mean it will make no noticeable difference in performance of
>this particular antenna.
>(I am not lumping all VHF & UHF antennas together. I am ONLY talking
>about the OSJ).
>If you don't have a physical Arrow Antenna OSJ to test with and without
>a balun, you don't know what you are talking about.
>That goes for computer modeling also. You can't hook up a radio to
>computer model.
>This antenna works just fine the way it is.
>
>By the way Danny, what is the name of your Antenna Company ?
>
>73 Al Lowe N0IMW Arrow Antenna

Allen,

My comments were directed to Ed not you, however, can you please explain to me what is the magical ingredient in your OSJ that makes it different than any other antenna known to man in that there will be no common mode current on a coax transmission line when directly connected to the antenna?

Understand I am not saying your antenna doesn't work - never did say that. I will say that using a choke at the antenna's feed point will assure that the antenna will be operating at its best (maximum signal towards the horizon). By not using a choke can cause an increase to high angle radiation at the cost of reducing radiation toward the horizon due to common mode current on the transmission line - just like any other VHF antenna feed with coax. In other words the antenna is still radiating the same amount of power, however, much of the your signal is being wasted in the wrong direction (unless you are talking to airplanes). For the sake of me I can't fathom why you can not understand that.

As for you question: I did not claim to own an antenna company. Is that germane to the subject of the thread?

73
Danny

1323. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 19:05:50 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d8sijm$68k$1@news.service.uci.edu>
Source record: 74789

Roy Lewallen wrote:

> The elevation
> angle at which the gain is maximum is of very little practical use --
> EZNEC reports it only because a lot of people wanted it (for reasons
> which remain mysterious to me).

Maybe the guys out at Goldstone can explain it.

:-)
ac6xg

1324. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 19:08:49 UTC
From: Buck <iam@this.site>
Message-ID: <hhj3b1pra3nedcoemprmgi38t9d351ib83@4ax.com>
Source record: 74788

On Thu, 16 Jun 2005 10:41:19 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Buck wrote:
>>
>> The TOA will help in any QSO. A low TOA will tend to open you up to
>> DX QRM such as on 40 meters, but an NVIS with near vertical TOA will
>> manage more regional communications than DX. You might not even be
>> bothered by the 500kw SW station in Germany. Of course, the station
>> you talk to will also have to deal with that station.
>>
>> Knowing the TOA is as beneficial as knowing where the nuls are on your
>> beam.
>>
>
>That's a good and perfectly valid point. Knowing the TOA would be useful
>in determining what range of distances you're most likely to encounter
>QRM from.
>
>Roy Lewallen, W7EL

Or what antenna to choose to avoid it.

--
73 for now
Buck
N4PGW

1325. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 19:11:58 UTC
From: Buck <iam@this.site>
Message-ID: <dkj3b1t6ke16robp0sb1hpnc17n3p3lnne@4ax.com>
Source record: 74790

On Thu, 16 Jun 2005 10:38:18 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Jer wrote:
>
>I think that if you go through this exercise a few times, you won't find
>much correlation between your results and the TOA.
>
>Roy Lewallen, W7EL

Of course, he could just check to see which antenna hears the station
the best with the least QRM.

From what I understand, the TOA of a DX station changes over time. It
may come in at a low angle and then rise a bit or visa versa. Or it
may never get high enough for a particular antenna

--
73 for now
Buck
N4PGW

1326. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 19:32:05 UTC
From: Anchor <anchorelectronics@sympatico.ca>
Message-ID: <pan.2005.06.16.19.32.04.405051@sympatico.ca>
Source record: 74791

Frank,

Thanks for the advise.

Obviously if it was trivial to modify magnetrons for communications in the 13 cm S band, there would be a lot of high power activity on that band and fewer dead microwave ovens in landfill sites.

Surely a near KW of radio energy can be used for more than re-warming left-overs. Maybe not.

1327. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 20:11:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u1n3b1hkb5s9akcdvvk0vep03q1cbd1v6n@4ax.com>
Source record: 74792

On 16 Jun 2005 11:14:47 -0700, "Adrian Scripca YO8SSW"
<benishor@gmail.com> wrote:
>Forgive my lameness, but does the size of the feeder have such a big
>impact upon the antenna's performance especially when it's shielded
>coax cable ?

Hi Adrian,

Only when your antenna's adjustment is more than your arm's length
from the transmitter during tune-up. It looked like your antenna was
outside, and your transmitter inside. When you transmit, what do you
do to adjust SWR?

Have you tried applying power to the antenna?

73's
Richard Clark, KB7QHC

1328. pk12 tnc

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 20:21:39 UTC
From: BobR <ricerl@snowcrest.net>
Message-ID: <958728b41775498b26f34499b500f3c9@localhost.talkaboutradio.com>
Source record: 74793

Can anyone help me find a schematic for a PK12 TNC?

1329. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 20:24:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ran3b1pmugg148q8oio4ftrp5rd05ti318@4ax.com>
Source record: 74794

On 16 Jun 2005 11:44:19 -0700, "mccall.mike.nospam@gmail.com"
<mccall.mike@gmail.com> wrote:

>The short ones appear to be between 4-6 inches in
>length. There is some variation in their lengths.

Hi Mike,

You can expect some "minor" variations. Tuning these up will NOT
change a poor situation.

>I'm not very confident that
>the local supplier pre-cut the antennas, although they may well have. A
>phone call will answer that.

The call to the supplier will draw a blank here. They provide goods,
not services. The antennas are "factory tuned." Installation is not
a matter of making things fit like a cabinet maker.

An installer would make sure of sufficient sheet metal to offer the
antenna a counterpoise - this is an implied presumption that a garage
mechanic would be wholly unaware of. In this regard, your antennas
WOULD be seriously detuned. Trimming them will do absolutely nothing
to improve this. As has been pointed out, you need real metal
footings.

Researching this last point may take some effort to match to your
situation of neglect and tight purse strings.

>As an aside, this particular company appears to make little if any
>investment in their people.

You run in serious chance of upsetting the apple cart in an attempt to
shine - not the response you would care for. A friend once pointed
out to me in a similar situation:
If it was important to them, it wouldn't be a problem.

73's
Richard Clark, KB7QHC

1330. Re: Antennas 101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 20:29:16 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Bilse.34$cO.968774@news.sisna.com>
Source record: 74796

Jim:

Don't look at me, I got out of ego counseling... into a new gig these days, just hung up my shingle:

"Unlicensed Practicing Gynecologist"

And my scale of payment is all follows:
. over 300 lbs $1,000,000
. 155 to 300 lbs $999,999
. under 155 FREE!!!
. I will pay tall thin red heads!!!

If you run into any potential clients--send 'em my way--only the ones who were BORN female however... as a special for the month of June--I will even help 'em study for the amateur exams...
<evil hehehehheeeee>

Warmest regards,
John

"Jim Kelley" <jwkelley@nospam.edu> wrote in message news:d8sh2j$58h$1@news.service.uci.edu...
> Richard Clark wrote:
>
>> On Thu, 16 Jun 2005 10:25:26 -0700, Jim Kelley <jwkelley@nospam.edu>
>> wrote:
>>
>>>It appears the both of you need a year of kindergarden and ego
>>>management counseling.
>>
>>
>> Hi Jim,
>>
>> Feeling like a wallflower at the dance?
>
> More like a fly in the oinment......or a turkey in the straw, perhaps.
> ;-)
>
>> Lighten up and you may get
>> more dates.
>
> They're not quite in season yet.
>
>
>

>
>
>
>
>
>

1331. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 20:34:14 UTC
From: dplatt@radagast.org
Message-ID: <11b3oi6rpai0c3e@corp.supernews.com>
Source record: 74795

In article <7rg3b15dauh0nk633enps7o57d7evkpko3@4ax.com>,
Dan Richardson <k6mhe<at> wrote:

>Allen,
>
>My comments were directed to Ed not you, however, can you please
>explain to me what is the magical ingredient in your OSJ that makes it
>different than any other antenna known to man in that there will be no
>common mode current on a coax transmission line when directly
>connected to the antenna?

May I chime in? Here's my best guess as to the situation with this antenna:

- Like any other VHF antenna without an effective feedline- decoupling arrangement and isolation from the mast, it's possible for the feedline and/or mast to carry some amount of RF current. Quite simply, there's nothing stopping this from happening.

- The RF impedance of the feedline shield and/or the mast will appear in parallel with the impedance of the longest (2-meter radiator) and shortest (440 matching arm) elements on the OSJ.

- What this impedance will be, will be extremely installation-specific, and so will the currents carried on the feedline braid and/or mast.

- If the length of these elements to the nearest ground is an odd multiple of a quarter-wavelength, the low-Z ground will transform back to a high-Z at the feedpoint, and little unwanted current will flow. If it's an even number of quarter-wavelengths, the impedance on the unwanted element will be quite a bit lower - the lower limit is probably the radiation resistance of a wire of that length. If it's a nonintegral multiple of a quarter wavelength, the impedance will be intermediate between these points and will be rather reactive.

- If the mast is ungrounded at the bottom, the relationships in the previous paragraph will be reversed - high-Z for even number of quarter wavelengths, lower (set by radiation resistance) at an odd number of quarter-wavelengths, reactive in between.

- Since the feedline and mast are likely to be longer than a metre, any radiation from them is likely to be have strong high-elevation-angle lobes. Power radiated in these lobes will be less "useful" in many applications, and since it takes away from the towards-the-horizon pattern of a theoretically-perfect halfwave radiator it

will reduce the antenna's useful pattern gain by some amount.

So far, I think this is all pretty standard per theory.

Here's where I go out on a limb of speculation:

- In a typical OSJ installation, the feedline and mast are relatively long, compared to the near-half-wavelength size of the radiator.

- For this reason, if the feedline/mast length happens to be one with a low and non-reactive RF impedance, its impedance will be a good deal higher than that of the antenna itself due to the higher radiation resistance (e.g. 100-200 ohms). Only a relatively small fraction of the power at the feedpoint will flow into the braid or mast. As a result, the amount of power "robbed" from the primary radiator will be small, the high-angle lobes will be weak, and the reduction in the strength of the towards-the-horizon primary lobe will be minor.

- If the feedline and/or mast happens to be of a length which results in a high impedance appearing at the feedpoint, then even less power will flow on these unwanted elements and the pattern disruption will be even less.

If the above model and speculation are correct, then two things can probably be said:

[1] In many installations - perhaps most - the OSJ probably works just fine without any sort of choking or decoupling arrangement (where I define "just fine" as "Adding a theoretically-perfect decoupling arrangement would not result in an improvement in pattern, ERP, receive sensitivity, etc. which the antenna's owner would notice or consider worth the trouble."

[2] In some installations, under specific conditions (e.g. short 1/2-wavelength-long feedline) a choke might result in at least some useful (or at least measureable) improvement in towards-the-horizon pattern.

I'll finish up by adding a personal observation. As Ed mentioned, the Arrow OSJ (and/or equivalent antennas made by a local amateur) are quite popular among members of our city's ARES group. I've measured a couple of them using an MFJ analyzer, and in my measurements I have *not* noticed the SWR / measured-impedance to change significantly when I touch or move the antenna feedline (even when it's a relatively short 6' piece of RJ58). This suggests to me that (in this case at least) there's not a lot of RF coming back down the outside of the feedline to the analyzer case, and that the near-50-ohm impedance presented by the radiator and matching stubs is the dominant "sink" for the RF current flow.

Do I think the OSJ is perfect? No - no practical antenna is. If I were putting one up for a permanent installation, I'd probably

insulate it from the mast, and loop the feedline coax into a choke balun and/or add a couple of ferrite beads, just because I'm picky and because the effort to do so is so small.

I would not, however, count on noticing any practical difference in performance from doing so, and I wouldn't bother doing this in any sort of temporary or field installation (which is the purpose for which I keep a break-apart OSJ in my van).

To that extent, I think that Al's statement that the OSJ doesn't need a choke, is a reasonably fair one. It's not a universal TRVTH but it's probably a fair, practical rule-of-thumb.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

1332. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 21:02:00 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <DFlse.102231$CR5.11240@bignews1.bellsouth.net>
Source record: 74797

skin back the insulation, if any, to be sure

"wb5cys" <wb5cys@sbcglobal.net> wrote in message
news:l1ese.2290$ks4.1268@newssvr12.news.prodigy.com...
> Considering a wire dipole (or inverted V) does bending the end of a leg
back
> and wrapping it around itself electrically shorten the antenna or must it
be
> cut in order to change the resonant frequency?
>
>

1333. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 21:12:50 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <mXlse.1865$kX4.631@newssvr30.news.prodigy.com>
Source record: 74798

What's a Cobra head?
"Buck" <iam@this.site> wrote in message
news:6k33b1t957vld5eb586p1nvgo1af8o5uto@4ax.com...
> On Thu, 16 Jun 2005 09:56:24 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>>That being the case, can I just keep folding back a 120 foot insulated
>>wire
>>dipole until it is say 5 or 6 foot long and it will still be resonant on
>>the original frequency?
>>
>>"Dave" <noone@nowhere.com> wrote in message
>>news:ffidnX40hoZO5yzfRVn-vQ@crocker.com...
>>> if it is insulated wire it must be cut, if its not then it doesn't.
>>though
>>> you will see some effect of folding it back even with insulated wire it
>>> won't be the same as cutting the wire shorter.
>
> No one said it would be resonant on the SAME frequency, just that
> there will be some effect. I have heard about an antenna design for a
> shortened dipole using 3-conductor home electrical wire. At one end,
> the green is connected to the cobra-head and the black and white wires
> are soldered together. At the other end, the black is soldered to the
> green. Viola -- a linear loaded dipole!
>
> I haven't tried it, but if it works, you may very well get your
> desired frequency with folded wire. I would strongly suspect it will
> be a compromise antenna as opposed to one with a gain, though.
>
>
> --
> 73 for now
> Buck
> N4PGW

1334. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 21:38:36 UTC
From: jgboyles@aol.com
Message-ID: <1118957916.089256.191290@g44g2000cwa.googlegroups.com>
Source record: 74799

Henry Kolesnik wrote:
> What's a Cobra head?
> "Buck" <iam@this.site> wrote in message
> news:6k33b1t957vld5eb586p1nvgo1af8o5uto@4ax.com...
> > On Thu, 16 Jun 2005 09:56:24 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> > wrote:
> >
> >>That being the case, can I just keep folding back a 120 foot insulated
> >>wire
> >>dipole until it is say 5 or 6 foot long and it will still be resonant on
> >>the original frequency?
> >>
> >>"Dave" <noone@nowhere.com> wrote in message
> >>news:ffidnX40hoZO5yzfRVn-vQ@crocker.com...
> >>> if it is insulated wire it must be cut, if its not then it doesn't.
> >>though
> >>> you will see some effect of folding it back even with insulated wire it
> >>> won't be the same as cutting the wire shorter.
> >
> > No one said it would be resonant on the SAME frequency, just that
> > there will be some effect. I have heard about an antenna design for a
> > shortened dipole using 3-conductor home electrical wire. At one end,
> > the green is connected to the cobra-head and the black and white wires
> > are soldered together. At the other end, the black is soldered to the
> > green. Viola -- a linear loaded dipole!
> >
> > I haven't tried it, but if it works, you may very well get your
> > desired frequency with folded wire. I would strongly suspect it will
> > be a compromise antenna as opposed to one with a gain, though.
> >
> >
> > --
> > 73 for now
> > Buck
> > N4PGW

As I recall it is a commercial name for a center insulator for the
common dipole. It was narrow at the bottom to accept the feed line,
and flared out at the top for connection to the dipole elements. With
the transmission line connected it sorta looked like the head of a
cobra snake. I haven't seen a cobra in person, nor have I saw a cobra
head insulator. I think I would like to keep it that way.
Gary N4AST

1335. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 21:56:52 UTC
From: Buck <iam@this.site>
Message-ID: <83t3b1hnib6n084kpaq84hqjmik9qaacia@4ax.com>
Source record: 74800

On Thu, 16 Jun 2005 21:12:50 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>What's a Cobra head?

Back in the good-ole-days, a cobra head was a triangle shaped device
that had an SO-239 on one corner and connections for the wires of a
dipole on the other two corners. One went to the center conductor and
the other went to the shield side. Then Baluns became popular and now
instead of cobra heads, most people have baluns. However, at that
time in ham radio, "Cobra head" was a generic term that meant the
piece to connect the wires of a dipole to a piece of coax.

--
73 for now
Buck
N4PGW

1336. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 21:58:20 UTC
From: Owen <none@no.where>
Message-ID: <0Cmse.19447$F7.17428@news-server.bigpond.net.au>
Source record: 74801

Buck wrote:
> When I setup an antenna in EZNEC, I want to see the azimuth but the
> program asks for an elevation angle. WHat angle should I use? I have
> been randomly using 5 or 10 deg.
>

An example of an approach to antenna design that starts with identification of the paths to be optimised is at http://www.vk1od.net/7MDipole/7MDipole.htm .

In this case, I was interested in local contacts and over 50% of Australia's population was located in just four cities at distances up to 1000Km. The propagation paths to those locations was modeled to provide the geometry for assessment of antennas in EzNEC.

BTW, 5 to 10 degrees elevation is probably below most propagation paths for DX, let alone local contacts. Lowest angle doesn't necessarily translate to optimal for distant stations (it depends on the propagation mechanism at the time), and the most desirable DX might not be at the greatest distance. Best performance at low angles might assure maximum pickup of local noise sources, and in my case QRM because I am not at all interested in DX.

Owen

1337. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 22:14:13 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118960053.656187.75820@g44g2000cwa.googlegroups.com>
Source record: 74802

>My comments were directed to Ed not you, however, can you please
>explain to me what is the magical ingredient in your OSJ that makes it
>different than any other antenna known to man in that there will be no
>common mode current on a coax transmission line when directly
>connected to the antenna?

I can't believe you are saying ALL antennas are exactly the same !!!

>Understand I am not saying your antenna doesn't work - never did say
>that. I will say that using a choke at the antenna's feed point will
>assure that the antenna will be operating at its best (maximum signal
>towards the horizon). By not using a choke can cause an increase to
>high angle radiation at the cost of reducing radiation toward the
>horizon due to common mode current on the transmission line - just
>like any other VHF antenna feed with coax.

There you said it again.

>In other words the antenna
>is still radiating the same amount of power, however, much of the your
>signal is being wasted in the wrong direction (unless you are talking
>to airplanes). For the sake of me I can't fathom why you can not
>understand that.

No the antenna is NOT perfect. Adding a choke would not make it
perfect.
If it was perfect like you want, I might not be able to make contact
with
cross band repeater on a balloon at 60,000 feet 200 miles away. And
still use a repeater 100 miles away, full quieting with 5 watts.
Check the distance between Denver CO & Cheyenne WY.

Your saying all antennas are the same is like saying all antennas with
a gamma match have a skewed pattern.
73 Al Lowe N0IMW

1338. Re: Laugh for the day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 22:17:21 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <RTmse.10570$5u4.34236@nnrp1.uunet.ca>
Source record: 74803

On 14/06/2005 5:20 PM, John Smith wrote:
> clvrmnky:
>
> That is a head of a pin... I envision fairies to be dancing upon it
> soon...
>
> ... just to agree on "semantics" and "proper technical terms" should
> take longer than the attention span I have...
>
Er, did you mean to reply to this? I'm afraid I don't get your meaning.
Some might say that your semiotics is obscuring your semantics. Not
that I would, of course.

1339. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 22:20:19 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <GWmse.44$kJ2.1047626@news.sisna.com>
Source record: 74804

Here is an excellent and practical discussion of rough design and
practical use of can antennas, make sure to follow the link on the
bottom of the page...
http://www.turnpoint.net/wireless/antennas/mycoffeecan.html

John

"Anchor" <anchorelectronics@sympatico.ca> wrote in message
news:pan.2005.06.12.23.11.54.893920@sympatico.ca...
> Any suggestions on how to build a 2.4 GHz CW transmitter with a
> microwave
> oven magnetron and a 2.4 GHz "pringle" or coffee can style antenna?
>
> There are tons of "pringle" or coffee can antennas or similar on the
> web.
> For example: http://flakey.info/antenna/waveguide or
> http://www.turnpoint.net/wireless/antennas/mycoffeecan.html
>
> I suppose one need only insert the magnetron antenna into the coffee
> can
> where one would normally mount the N-connector feed point.
>
> A labeled diagram of a microwave magnetron can be found at:
> http://www.gallawa.com/microtech/mag_test.html
>
> I suppose the metal coffee can has superior micro shielding properties
> relative to the aluminumized cardboard pringle can.
>
> Would I be better off with plumbing copper drain pipe from the stray
> RF
> exposure perspective?
>
> Since microwave magnetron use a half wave power supply, can I use two
> magnetrons in the same coffee can powered from a single AC HV
> transformer
> with a pair of HV rectifiers to feed alternate cycles to the
> magnetrons?
>
> Greg, VE0ACR

1340. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 22:50:30 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Wmnse.57975$HI.52492@edtnps84>
Source record: 74805

> Thanks for the advise.
>
> Obviously if it was trivial to modify magnetrons for communications in the
> 13 cm S band, there would be a lot of high power activity on that band and
> fewer dead microwave ovens in landfill sites.
>
> Surely a near KW of radio energy can be used for more than re-warming
> left-overs. Maybe not.

No problem, glad to help. It still might be interesting to plug in the parameters to the free space radar equation, considering receiver noise figure, and signal BW, etc.. I am sure there is data available on the reflectivity of the Lunar surface. Of course COHO/STALO will only work if you are receiving your own signal, so not much use if you are attempting to work others.

As I suspected, some work has been done on the injection locking of magnetrons; as in
http://www.lancs.ac.uk/cockcroft-institute/public/workshop-jul04/tahir.pdf
This presentation recommends an injection signal of 2% power, or 20 W in the case of a 1 kW magnetron. I have no experience on solid state amplifiers at such a frequency (except for TWTs), but the construction of a single loop synthesizer using ,a National Semiconductor chip, and a Z-Communications (or Mini-Circuits etc.) SMT oscillator is trivial. There are lots of eval. boards available for a nominal cost. I think Z-comm. has one, but have not priced it recently. I guess such projects are a bit impractical unless you have a good spectrum analyzer

73,

Frank

1341. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 22:57:18 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <3s04b19kn5olgchu4mjsd360dfgskv0uu9@4ax.com>
Source record: 74806

On Thu, 16 Jun 2005 17:56:52 -0400, Buck <iam@this.site> wrote:

>On Thu, 16 Jun 2005 21:12:50 GMT, "Henry Kolesnik"
><kolesnik@sbcglobal.net> wrote:
>
>>What's a Cobra head?
>
>
>Back in the good-ole-days, a cobra head was a triangle shaped device
>that had an SO-239 on one corner and connections for the wires of a
>dipole on the other two corners. One went to the center conductor and
>the other went to the shield side. Then Baluns became popular and now
>instead of cobra heads, most people have baluns. However, at that
>time in ham radio, "Cobra head" was a generic term that meant the
>piece to connect the wires of a dipole to a piece of coax.

B&W still sells a cobra head center insulator...

http://www.bwantennas.com/pro/support.pro.htm

I'm trying to figure out how they get $179 for it.

bob
k5qwg

1342. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 23:18:13 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <L4adnV-WZZoslS_fRVn-pg@comcast.com>
Source record: 74807

Using #10 wire instead of 1/8 tubing will very slightly raise the
frequiency, not enough to worry about. If you mount it for vertical
polarization, at least the top 2 feet of the mast should be non metallic,
wood or plastic water pipe. How are you going to match the feedline to the
driven element? I hope the 4 element beam has instructions for that.

Tam/WB2TT

"Moto579" <ryanmeg@adelphia.net> wrote in message
news:6-ydneE4xbTMLy3fRVn-gw@adelphia.com...
I have no meter other than the bars on the ht and a good multimeter.
Is this on track?
I split the driven and leave how much room between the two pieces?
Will 10 gauge wire make a big difference between from the below specs?
70 Centimeter 4 element beam center frequency 440 MHz
70 Centimeter 4 element beam
1/8" diameter tubing Element Length Element spacing
from Reflector
Reflector 13" *****
Driven 12" 8-1/16"
Director 1 11-7/8" 16-3/4"
Director 2 11-3/4" 23-3/8"

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:S02se.5863$pa3.1743@newsread2.news.atl.earthlink.net...
>
> "Moto579" <ryanmeg@adelphia.net> wrote in message
> news:1cCdnRPTa-RuPS3fRVn-vw@adelphia.com...
>> I would like to build a yagi for 448 mhz rangr for home use I have a 12
> foot
>> 1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>> think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
> line
>> as a feed line? All the plans I have found are for 50 ohm feedlines. It
> is
>> all I have for wire and living out in the boonies it is difficult to
> travel
>> to pick up some 50 ohm.
>
> Don't worry about the 50 or 75 ohm feedline. Just build the antenna and
> feed it with what you have. If you build an antenna with a matching
> section
> and have a good swr meter calibrated to 75 ohms you can match it.
> If you don't have a meter you will have to take whatever you get.
>

>

1343. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 23:42:05 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1118965324.970702.48860@f14g2000cwb.googlegroups.com>
Source record: 74808

>I've measured a
>couple of them using an MFJ analyzer, and in my measurements I have
>*not* noticed the SWR / measured-impedance to change significantly
>when I touch or move the antenna feedline (even when it's a relatively
>short 6' piece of RJ58). This suggests to me that (in this case at
>least) there's not a lot of RF coming back down the outside of the
>feedline to the analyzer case, and that the near-50-ohm impedance
<Sniped>

Funny how much the comments differ from some one who has a
physical OSJ Antenna and those who just try and model it or
or assume they know it won't work well.
73 Al Lowe N0IMW

1344. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-16 23:54:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b449re8v70a3b@corp.supernews.com>
Source record: 74809

That's an excellent summary by Dave. However, I didn't see any mention of common mode current due to mutual coupling between the feedline and the antenna. Even if you perfectly choke the common mode current at the feedpoint, considerable current can be induced onto the feedline. This won't happen with a symmetrical dipole if the feedline is oriented at right angles to the antenna. but where the antenna and feedline are collinear, as they are in a J-Pole or ground plane antenna, coupling can be substantial. The criterion for maximum current in that case is whether the decoupled section of the feedline is approximately resonant. For example, a quarter wave feedline grounded at the bottom and decoupled at the top (i.e., with a current balun - common mode choke - at the feedpoint) can have considerable current induced.

It turns out that the conditions for maximum induced current can be opposite those for conducted current. For example, a half wavelength feedline that's not grounded at the bottom end won't have a great deal of conducted current. However, it can have quite a bit of induced current *if decoupled at the feedpoint*. If there's a good balun at the feedpoint, the isolated feedline becomes approximately self-resonant.

Here's an example, for those who have EZNEC:
Begin with example model VHFGP.EZ. First, in the main window, select Units, change to any units other than Wavelengths, and click Ok. Then select Units again, change back to Wavelengths, and click Ok. (This is necessary because of an EZNEC bug I discovered while preparing this. It affects only old files with Wavelength units, which include example files VHFGP and W8JK. When opened, these files will show the wire diameter units as being in Inches in the Units selection, but Wavelengths in the Wires Window. This bug will be fixed in the next update release, v. 4.0.17. In the meantime, you can re-save the files after changing the units and changing back, and they'll be ok from then on.)

Add a wire with End 1 at 0, 0, 5 and End 2 at 0, 0, 4.5, 10 segments. Make the diameter 0.25 inch. This represents the outside of a feedline. Click the Currents button at the left of the main window and look at the current on the new wire, Wire 6. You should see that it's about 0.19 amp at End 1 (the top). (You'll see a different value if you've set a power level in the Options menu.) Now add a decent balun by adding a load with R = 1000 ohms to End 1 of Wire 6 (0% of the way from End 1). Click Currents again. Note that the current is now maximum at the middle of Wire 6, and it's more than twice what it was before -- about 0.42 amp.

This is a situation that I'd frankly never considered before -- where a feedpoint balun can actually *increase* the common mode current! The

current can, of course, be lowered to a small value by adding a second current balun (common mode choke) about a quarter wavelength down the wire (Wire 6, 50% from End 1).

To stop the conducted current, you need a choke at the feedpoint or, alternatively, an even number of half wavelengths from it. To stop the induced current, you need a break up a resonant line by adding a choke about a quarter wavelength or an odd number of quarter wavelengths from an open end, or an even number of half wavelengths from a grounded end. Of course, you can alter the feedline length in such a way that both are minimized without needing a choke.

Roy Lewallen, W7EL

1345. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 00:11:35 UTC
From: dplatt@radagast.org
Message-ID: <11b459njaetiv2d@corp.supernews.com>
Source record: 74810

In article <11b449re8v70a3b@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>This is a situation that I'd frankly never considered before -- where a
>feedpoint balun can actually *increase* the common mode current! The
>current can, of course, be lowered to a small value by adding a second
>current balun (common mode choke) about a quarter wavelength down the
>wire (Wire 6, 50% from End 1).

To coin a phrase: "Fascinating!" Thanks for pointing this out, Roy.

This gives an interesting twist to some advice I'd read several
times... that to choke off feedline current one should install two
chokes or ferrite beads, a quarter of a wavelength apart on the feedline.

I had always assumed that this was simply a quickie way of making sure
that a useful amount of choking reactance was sure to be installed
fairly close to a current maximum, where it'd be most effective, and
that if you knew where the current maximum actually was and put a
choke there, you wouldn't really need to install the second choke.

The fact that the conduction and induction currents behave differently
would seem to rule that out - there really _is_ a good reason to have
two chokes, to handle the two modes.

Hmmm... slightly crazed idea... I wonder if there's a market for a
coax with some amount of ferrite dust mixed into the PVC jacket when
it's extruded, so as to create a self-choking distributed-inductance
feedline. If the more rabid audiophiles can be convinced to spend
thousands of dollars for a one-meter RCA-plug-tipped interconnection,
maybe the excessively- well-to-do ham (there must be at least one)
would pay ridiculous sums for a self-baluning RG-8?

Might be a neat income opportunity, if one could sell it at high
prices and still stand to look at ones face in the mirror the next
morning (I couldn't, but I imagine there are people who could).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1346. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 00:37:30 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <rNCdndatpdLKhi_fRVn-jg@comcast.com>
Source record: 74811

"mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com> wrote in message
news:1118947459.156931.132430@g44g2000cwa.googlegroups.com...
> Thanks, Greg.
>
> I've printed out their catalog and noted the products you suggested.
>
>
> As an aside, this particular company appears to make little if any
> investment in their people. The manager here must get prior approval
> from the regional manager to purchase string for the weed-eater. This
> may well help explain why there has been no service contract in place,
> nor has there been any attempt to fix the problem(s) with the radios.
> This makes me think that other than our remounting the antennas
> properly and cleaning connections there may be little we can do.
> Perhaps that will be enough to get our communications to a point of
> being adequate for our needs.

Sounds like one fo the Supreme Communication offices in western Illinois,

greg

>
> Anyway, thanks for the information. I'll let you know what we find.
>
> Mike
>

1347. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 01:00:21 UTC
From: Dan Richardson <k6mhe>
Message-ID: <c084b19idt61003oqde6498k693u8ahi5k@4ax.com>
Source record: 74812

On 16 Jun 2005 15:14:13 -0700, "Al" <Arrow146@aol.com> wrote:

>Your saying all antennas are the same is like saying all antennas with
>a gamma match have a skewed pattern.
>73 Al Lowe N0IMW

Damn it Allen, what I am saying is coax is coax and it will behave the
same regardless of what antenna it is connected to.

I feel you missing the whole point.

I am not attacking you antenna. I just disagree with your advise on
its installation.

73,
Danny, K6MHE

1348. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 01:47:17 UTC
From: kashe@sonic.net
Message-ID: <eva4b1pk9b0mfouakrts6veq75o0a8lfco@4ax.com>
Source record: 74813

On Tue, 14 Jun 2005 20:13:49 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>Doggone it - and I thought Time was a pretty good invention.
>It - kinda keeps all things from happening simultaneously.
>Like - last night was a transition between yesterday and today.
>And because of 'time' kids learn to walk before they go to college and learn
>to drink.
>
Think of all the money you could save if the hangover sarted
with the first glug of beer. Or even before.

1349. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 01:51:20 UTC
From: kashe@sonic.net
Message-ID: <u2b4b1dl0navn1c1j75vom0n26ogsiss47@4ax.com>
Source record: 74814

On Tue, 14 Jun 2005 17:35:21 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>U.S. patent 6,025,810: "Hyper-Light-Speed Antenna", issued Feb. 15, 2000:
>
>"The present invention has discovered the apparent existence of a new
>dimension capable of acting as a medium for [RF] signals. Initial
>benefits of penetrating this new dimension include sending RF signals
>faster than the speed of light, extending the effective distance of RF
>transmitters at the same power radiated, penetrating known RF shielding
>devices, and accelerating plant growth exposed to the by-product energy
>of the RF transmissions."
>
>Snif. Kinda makes you all weepy and proud, doesn't it? Is this a great
>country, or what. Hope y'all got your flags out and wavin'.
>
>It's all there, at http://uspto.gov.

I am remnded of the product once advertised as:

Cleans clothes, lubricates machinery, removes rust, protects leather,
shines brass, restores virginity, preserves vinyl and retards mildew.

1350. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 02:14:09 UTC
From: kashe@sonic.net
Message-ID: <vgc4b1t03ti52jvvgp4er4sb02d9101vur@4ax.com>
Source record: 74815

On Tue, 14 Jun 2005 15:47:05 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Cecil, W5DXP wrote:
>"Which proves that $500,000 lawyers are better than $50,000 lawyers."
>
>Yes. I was in Scotland a week ago and someone told me that there,
>besides guilty or not guilty, the Scots have a third verdict available.
>It is "Guilt not proven". In this verdict the person charged is not
>exonorated but is released. This "guil not prioven" verdict is said to
>be the origin of the term "Scot free".
>
>Best regards, Richard Harrison, KB5WZI

Thank you -- I had no idea that three-state logic was a Scottish invention. :-)

1351. Re: Yagi for 448or so mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 02:27:03 UTC
From: Moto579 <ryanmeg@adelphia.net>
Message-ID: <IOqdnRW3ssFlqS_fRVn-tg@adelphia.com>
Source record: 74816

Here is what I ended up building:

http://users.adelphia.net/~ryanmeg/8lq.jpg

The one designed for 446mhz

I used a 3/4 by 1.5 inch beam and 1/8th inch brass welding rod with #12 copper THHN wire for the director and reflector.
Works great even with the 8 foot 75 ohm feedline directly wired

Anybody have any ideas on how to improve?

Here is a photo http://users.adelphia.net/~ryanmeg/images/100_0532.jpg

"Moto579" <ryanmeg@adelphia.net> wrote in message
news:vc6dnRSzKOdCdy3fRVn-2g@adelphia.com...
> Appreciate it
>
>
>
>
> "Kingfish Stevens" <nospam@nospam.net> wrote in message
> news:99p1b15thb0g9pf3790usatdi46l7efu8l@4ax.com...
>> Considering the materials you have to work with, do a Google search on
>> "quagi antenna". Simple to build and no matching problems.
>> Kingfish
>>
>> On Wed, 15 Jun 2005 14:43:13 -0700, "Moto579" <ryanmeg@adelphia.net>
>> wrote:
>>
>>>I would like to build a yagi for 448 mhz rangr for home use I have a 12
>>>foot
>>>1x1" piece of cedar and some 10 gauge copper wire It measures 0.15625" I
>>>think it is 10 gauge. Am I wasting my time? Also how do I use 75 ohm
>>>line
>>>as a feed line? All the plans I have found are for 50 ohm feedlines. It
>>>is
>>>all I have for wire and living out in the boonies it is difficult to
>>>travel
>>>to pick up some 50 ohm.
>>>
>>>I'm on a budget / disabled and would appreciate any help/
>>>knowledge/links/donations on this.
>>>I own the ARRL Antenna book 20th edition and find it to be a bit
>>>overwhelming so far.
>>>

>>>
>>>Cheers,
>>>Ryan
>>>
>>
>
>

1352. Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 03:30:02 UTC
From: Buck <iam@this.site>
Message-ID: <lc74b1pnrmgj2caujco5l3slv8kbnkhrqv@4ax.com>
Source record: 74817

I had a 20 meter dipole about 65 feet over the house. The antenna had a flat swr on 14.336 where I often hang out. On the low end, it was too high to use below 14.020 so I only lost use of a portion of the extra portion without a tuner. (flat defined as according to the 706 MKII internal meter.)

This evening I cut a pair of wires 4.5 feet long each. I added them to the 20 meter connection center connection at the coax and let them hang about 8 inches below the 20 meter wire. I also changed coax from cable-tv coax to RG-8 foam. I rearanged the antenna just a little with also allowed for an additional 10 feet of height. I now have a 20/6 meter dipole at about 75 feet high with the legs pointed almost exactly east and west.. 20 meters is now flat at 14.030 and the top edge of the band is only 1.3:1. The 6 meter dipole turned out to be flat on 50.1.

So far, I am quite happy with the antenna. I am having a 6 meter QSO as I write this. (The other party loves to talk and hasn't unkeyed for at least 5 full minutes.)

Based on our current conversation, It appears that my next antenna will be a loop.

Comments are welcome,

Thank you,

--
73 for now
Buck
N4PGW

1353. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 03:31:28 UTC
From: Buck <iam@this.site>
Message-ID: <10h4b15mdoru0drnevjivhldpmks0515ob@4ax.com>
Source record: 74818

>B&W still sells a cobra head center insulator...
>
>http://www.bwantennas.com/pro/support.pro.htm
>
>I'm trying to figure out how they get $179 for it.
>
>bob
>k5qwg
>
>

Does it come with an antenna?

--
73 for now
Buck
N4PGW

1354. FA: 4 new SMA to BNC adapters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 04:12:40 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <14sse.11177$6o4.1166@fed1read04>
Source record: 74819
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

Please see
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=7285&item=7524110422&rd=1&ssPageNam
e=WDVW or visit our web site at www.aaarfproducts.com

1355. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 06:13:06 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <SRtse.11190$6o4.6622@fed1read04>
Source record: 74820

<kashe@sonic.net> wrote in message
news:vgc4b1t03ti52jvvgp4er4sb02d9101vur@4ax.com...
> On Tue, 14 Jun 2005 15:47:05 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
> Thank you -- I had no idea that three-state logic was a
> Scottish invention. :-)

It's 4 state logic - you forgot PAR.

Ken
--
Just my 2&#65533;... 73 es gd dx de Ken KG&#65533;WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

1356. Re: EZNEC What elevation angles should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 07:37:00 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <SKV+vFEc2nsCFAQv@ifwtech.co.uk>
Source record: 74821

Owen wrote:

>BTW, 5 to 10 degrees elevation is probably below most propagation paths
>for DX, let alone local contacts. Lowest angle doesn't necessarily
>translate to optimal for distant stations (it depends on the
>propagation mechanism at the time), and the most desirable DX might not
>be at the greatest distance. Best performance at low angles might
>assure maximum pickup of local noise sources, and in my case QRM
>because I am not at all interested in DX.

Recent editions of the ARRL Antenna Book cover this topic very thoroughly. They note that arrival angles from a given location vary with time of day, time of year, time in the sunspot cycle, whether the ionosphere is stable or disturbed, and so on...

Then they produce statistics for major paths (eg "G-VK"), averaged over all these factors. OK, so these figues are "only computed"... but they are computed using VOACAP (the Voice of America's propagation program that has has years of development and a lot of verification) so this is the best information we're ever likely to get.

The big lesson is that there is ALWAYS A SPREAD OF POSSIBLE ANGLES.

As Owen says, 5-10deg is not always the most likely angle. It all depends on how many F2/F1/E hops will fit into the required path length. That means the arrival angles tend to jump, especially as the band is coming on or going out. (However, it turns out that a substantial fraction of signals on the G-VK path come in at angles of only a degree or two. These paths are workable, of course, but the antennas at both ends will usually have very little gain unless the land slopes down to lower the reflection angle.)

Hams became fixated on "5 to 10 degrees" a very long time ago, and we still tend to wave this figure around like some kind of flash-card. Professionals have moved on to a much better understanding of the range of possible angles that they need, and this is now starting to filter into ham radio too.

If anyone is interested in this subject and hasn't read a recent edition of the ARRL Antenna Book, it's time for an update.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1357. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 08:25:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8u1e4$8dg$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74822

At the high frequencies you are listening to you can't expect to hear
much noise.

Complain only when you don't hear any signals.

To hear any signals both the receiver and antenna must be tuned
exactly to the same frequency.

How do you ensure that both are tuned to the same frequency?

By the way, the 1/5th diameter coupling loop is much more likely to be
working correctly than the ferrite ring method. There's no way for the
coupling loop to go wrong. It is more efficient too.

There's no need at all for the coupling loop to be made of coax. Just
a length of self-supporting wire is perfectly adequate. Best if there
is no direct connection to the main loop.

Reg, G4FGQ

==========

"Adrian Scripca YO8SSW" <benishor@gmail.com> wrote in message
news:1118928345.326491.250040@g47g2000cwa.googlegroups.com...
> Hi guys,
>
> I started a topic regarding magloop antennas few weeks ago asking
about
> ways to replace the ferite coupling method. Some hams, to whom I
deeply
> thank, have replied to the topic and provided some valuable insights
on
> the matter.
>
> Since then I managed to "build" an acceptable antenna. The only
problem
> with it is that it doesn't work. yet, that is. HI!
>
> Here's what happens : the moment I plug it into the FT100 (both
wires,
> not only the central conductor) I get silent background (low level
> noise) as if it had no antenna at all. An uneducated guess of mine
> would be that maybe the feeder shorts *before* the coupling loop.
>
> Here's a link to a page describing the way I did it which contains a
> small picture gallery of various parts.

http://benny.kappa.ro/antenna/
>
> Perhaps someone could enlighten me by providing any debugging tips
and
> tricks. The downside is that I don't really have any specialised
> testing rig. I only own a multimeter, the ft100, the mfj in the
picture
> and a soldering iron :]
>
> Thank you for your time,
>
> 73 de YO8SSW
>

1358. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 12:30:42 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ajg5b1h1vru9gtdc2svf8baiful51sf814@4ax.com>
Source record: 74823

On Thu, 16 Jun 2005 23:31:28 -0400, Buck <iam@this.site> wrote:

>
>>B&W still sells a cobra head center insulator...
>>
>>http://www.bwantennas.com/pro/support.pro.htm
>>
>>I'm trying to figure out how they get $179 for it.
>>
>>bob
>>k5qwg
>>
>>
>
>Does it come with an antenna?

Antenna is extra.

bob
k5qwg

1359. Re: Adjusting Resonant Frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 12:46:22 UTC
From: Dave <noone@nowhere.com>
Message-ID: <tJWdnQn0ism6Wy_fRVn-tw@crocker.com>
Source record: 74824

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:ajg5b1h1vru9gtdc2svf8baiful51sf814@4ax.com...
> On Thu, 16 Jun 2005 23:31:28 -0400, Buck <iam@this.site> wrote:
>
>>
>>>B&W still sells a cobra head center insulator...
>>>
>>>http://www.bwantennas.com/pro/support.pro.htm
>>>
>>>I'm trying to figure out how they get $179 for it.

"military", 'nuff said.

1360. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 14:24:20 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <o2Bse.5595$jX6.5112@newsread2.news.pas.earthlink.net>
Source record: 74726

Hi Dan,

My, you are a bit on the arrogant and foul-mouthed side, aren't you!

It would be tedious to try and dissect your attributions of positions
that I did not take, so I'll skip that.

I'll just point out that as an E.E. with three degrees from a top-5
engineering school, and a lifelong specialization in RF engineering,
I don't need any patronizing lectures from you. "Physician," heal
thyself... or at least try to understand the difference between
theoretical niceties and practical effects. Reading Dave's posts
might help. (He's much more patient with twits than I am, and
explains things well.)

BTW, I have nothing against coax "baluns," unless they become
physically awkward, or noticeably increase cable loss.

Ed

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:b743b1ptg7olijgk6jf346a58vtgra77ph@4ax.com...
> On Mon, 13 Jun 2005 22:54:01 GMT, "Old Ed"
> <eXseniorsDeleteThisAndTheX@earthlink.net> wrote:
>
> >Don't let the nay-sayers in this NG bother you, and don't waste
> >your time arguing with them.
> >
> >Some of them can't stand the thought that any antenna which differs
> >from their personal pet(s) might be good. Others can't grasp the
> >idea that when model predictions and actual results differ, it's the
> >results that count.
>
> Spoken like a true naif.
>
> I suggest that you would take the time to learn what causes common
> mode current to be present on coax transmission line - regardless of
> what kind of an antenna it is employed. (For openers I suggest you
> start here http://www.w2du.com/r2ch21.pdf)
>
> Then, after getting a grasp on that aspect continue to learn how
> common mode current on the transmission line can effect the overall
> performance of an antenna's radiation pattern - especially with VHF &
> UHF antenna systems then you just might understand what people here
> are trying to tell you.
>

> However, I doubt that you would do that as it would appear you've made
> up your mind and don't want to be confused with known facts.
>
> >Still others can't seem to understand that effects too small
> >to measure usually do not matter in the real world.
>
> Others have measured this and reported it to you, but for some reason
> you chosen to discount anyone who can show that it disagrees with your
> "pet" theory. For me, I've place your theory along with the world is
> flat, the moon is made of green cheese, and Iraq has weapons of mass
> destruction .
>
> But even for a skeptic, I would thing that the thought of coiling up a
> few turns of coax costs very little, definitely won't hurt, and can
> only help. Would be sufficient.
>
> Danny, K6MHE
>
>
>

1361. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 14:51:40 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <aum5b19vd9p6qkolk5aeo8vjuug67vh9ef@4ax.com>
Source record: 74727

On 16 Jun 2005 10:29:02 -0700, "Al" <Arrow146@aol.com> wrote:

[snip
>I said I was done with this subject, But ..... I can't take it
>anymore.

I thought I was too but I can't take it anymore either.

>Again, the Arrow Antenna OSJ Antenna does NOT need a choke balun.

No antenna *needs* a balun. Most will deliver more predictable
performance when they incorporate one however. Your's is not an
exception, in fact, it's a glaring example of where one *should be*
used. Furthermore, a non-conductive support should be used as well.
A balun on a piece of coax that is in parallel with a conductive mast
is worthless.

If these things aren't used, then you are selling only part of the
antenna system; the upper part...with the user is supplying the lower
part. I suppose you could argue that the part you sell, when mounted
directly on an infinite ground plane, doesn't need a balun, but I
don't see that limitation spelled out in your literature.

>By that I mean it will make no noticeable difference in performance of
>this particular antenna.
>(I am not lumping all VHF & UHF antennas together. I am ONLY talking
>about the OSJ).

When "performance" is measured by whether or not you can break the
squelch of the local repeater, then you are correct, it makes no
difference as long as the squelch is broken.

>If you don't have a physical Arrow Antenna OSJ to test with and without
>a balun, you don't know what you are talking about.
>That goes for computer modeling also. You can't hook up a radio to
>computer model.

Uh huh. So since you don't trust modeling, I guess you have a high
class antenna range that you use to design your antennas. That must be
how you substantiate such claims as, "This antenna has a good
combination of gain, front/back & bandwidth" and where you prove that
the pattern of your J-pole is unaffected by the supporting mast and/or
transmission line.

Whoops---wait a minute---right here:

http://arrowantennas.com/inst/ijpole.html

I see 3D radiation plots made from a *COMPUTER MODEL*.

Plus I see SWR plots that (convienently) are 1.0:1 over the whole 2-meter band. That is amazing. My dummy load isn't that good.

Look. I'm sure you're a very nice guy and we would probably enjoy having a few beers together. I've already commented on your ingenuity in designing and constructing your production machinery and your products seem to be very well made.

But your performance claims are over the top and while I know that almost everybody in the ham antenna business is prone to rub a little snake oil on their ads, it doesn't mean that I'm going to agree with it or refrain from skewering those who do it.

1362. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 15:05:11 UTC
From: Dan Richardson <k6mhe>
Message-ID: <mjp5b1t230gbng2o99ru8tq4paqscl09lr@4ax.com>
Source record: 74728

On Fri, 17 Jun 2005 14:24:20 GMT, "Old Ed"
<eXseniorsDeleteThisAndTheX@earthlink.net> wrote:

>Hi Dan,
>
>My, you are a bit on the arrogant and foul-mouthed side, aren't you!

Foul-mouthed?

1363. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 15:28:45 UTC
From: Al <Arrow146@aol.com>
Message-ID: <1119022125.075449.206320@o13g2000cwo.googlegroups.com>
Source record: 74729

>Damn it Allen, what I am saying is coax is coax and it will behave the
>same regardless of what antenna it is connected to.
>
>I feel you missing the whole point.
>
>I am not attacking you antenna. I just disagree with your advise on
>its installation.

Hello, Danny, K6MHE

I am not missing the point, I just have a different point I have to
deal with.
Check the last few posts, especially the one from Roy.
Can you imagine trying to explain that to some one that don't
understand why
the coax he took off an old computer network don't work with his 2
meter radio.
You have to realize, a lot of times I am dealing with hams that just
got their
license last week. One's that have trouble putting a connector on
coax.
A lot of the time they don't even have an SWR meter, or they are trying
to use one from their old CB.
The ham buying a $39. antenna that don't have to be tuned or adjusted,
is
at a different knowledge level than a ham that can set up an EME
station.
I am not an antenna guru, I know less about coax & baluns than I know.
That's why I have been reading this newsgroup for the last 10 years.
Why heck, I cant even spel.
The OSJ is a good entry level to antennas. It get's them on the air,
so
they can learn more.
I think I am doing a good service. At least I feel good reading the
e-mails I get almost every day from people using my antennas.

73 Al Lowe N0IMW

1364. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 16:36:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <91c02$42b2fc03$97d55d24$20070@ALLTEL.NET>
Source record: 74730

Al, I have a fair idea of antennas and baluns and how the electrons and homotrons bounce around these magical devices..

Your antenna works well for it's intended purpose. I have two of your J-poles, one on the house and one on the roof of the car. (Takes 6 large rubber bands to remove the mechanical resonance at 70 MPH) They connect me with the local repeaters, withstand hurricane winds, and are trouble free. At $39.00 a bargain by any description.

Many here enjoy picking fly crap out of pepper, that is their enjoyment of ham radio. No different than
contester, DX hounds etc. I enjoy the discussions of folks that will spend days bloviating on the state of an electron named George at an SWR of 1.000000001:1.

These folks have caused me to think, as well as learn, just to keep up with the pin dancing. That's a good thing

While some can appear officious and supercillious in the process, once you get beyond that, pearls of wisdom do appear.

Continue making a great antenna, those that desire to achieve antenna nirvana may spend time with the tweezers removing the afore mentioned flyspecks.

"Iligitimus non carborundum"

"Al" <Arrow146@aol.com> wrote in message
news:1119022125.075449.206320@o13g2000cwo.googlegroups.com...
> >Damn it Allen, what I am saying is coax is coax and it will behave the
> >same regardless of what antenna it is connected to.
> >
> >I feel you missing the whole point.
> >
> >I am not attacking you antenna. I just disagree with your advise on
> >its installation.
>
> Hello, Danny, K6MHE
>
> I am not missing the point, I just have a different point I have to
> deal with.
> Check the last few posts, especially the one from Roy.
> Can you imagine trying to explain that to some one that don't
> understand why
> the coax he took off an old computer network don't work with his 2
> meter radio.

> You have to realize, a lot of times I am dealing with hams that just
> got their
> license last week. One's that have trouble putting a connector on
> coax.
> A lot of the time they don't even have an SWR meter, or they are trying
> to use one from their old CB.
> The ham buying a $39. antenna that don't have to be tuned or adjusted,
> is
> at a different knowledge level than a ham that can set up an EME
> station.
> I am not an antenna guru, I know less about coax & baluns than I know.
> That's why I have been reading this newsgroup for the last 10 years.
> Why heck, I cant even spel.
> The OSJ is a good entry level to antennas. It get's them on the air,
> so
> they can learn more.
> I think I am doing a good service. At least I feel good reading the
> e-mails I get almost every day from people using my antennas.
>
> 73 Al Lowe N0IMW
>

1365. Ham/electronics stores in LA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 16:46:10 UTC
From: Shadow998 <HRD998cc@yahoo.coom>
Message-ID: <m7Dse.3600$Pa5.2667@newssvr21.news.prodigy.com>
Source record: 74731
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.hf,rec.radio.amateur.boatanchors

I will be in Ontario and Los Angeles, CA area this weekend and will have a lot of free time. Are there any good electronics/Ham stores in that you would recommend? Electronic Surplus stores that have radio gear/parts are a plus as well.

I have an internet connection at my hotel, so any responses anytime this weekend will be read.

Thanks!

Russ W6OHM

1366. FREE DISH NETWORK SATELLITE SYSTEM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 16:50:01 UTC
From: JMDaRosa82@cox.net
Message-ID: <1119027001.738010.240750@g14g2000cwa.googlegroups.com>
Source record: 74732

Tired of being overcharged from cable companies advertising digital
cable when only a few of their channels are digital.......

Check out this offer you cant refuse. ABSOLUTELY FREE WITH EXTENSION
AND PROMOTION CODES BELOW!!!!!!!!!!!!!

Satellite TV System!
100% DigitalSignal!
· Up to 4 Receivers Installed Free
· Rates as low as $19.99 per month
· Free Professional Installation
· Up to 256 Channels
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What you get:
· Satellite Dish System Professionally Installed At Your Home
· Includes up to Four Receivers - No Equipment to Buy - Even includes
HDTV receivers!
· Free Installation of the receivers in up to four rooms of your
choice
You can even choose personal digital video recorders in every room
valued at $499 each if you had to buy them! The
DVRs record up to 100 hours of your favorite shows without any tapes!
You can ZAP COMMERCIALS,
PAUSE, and REWIND live shows! Order your FREE SYSTEM today!
Order by phone and schedule your installation today!
Valuable Coupon!
Entitles bearer to Free Installation in up to four rooms!
You may also upgrade to a Personal Video Recorder
valued at $499 if you had to buy one.

Call the number below with Extention and Promotion Codes below or order
Online!!!

1-877-998-DISH

****
FIND OUT DETAILS AND ORDER ONLINE WITH INFORMATION BELOW TO RECEIVE
PROMOTION.

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Extension: 178898
Promotion Code: A18

****

Free Satellite Installation anywhere in the country!
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restrictions apply.
Limited time offer expires soon. Please visit our website for complete
details.
Order online! www.vmcsat.com
No equipment to buy!
You get
FREE HDTV receivers and
FREE Digital Video Recordersthat record 100 hours of yourfavorite shows
without tapes!

1367. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:01:17 UTC
From: Dan Richardson <k6mhe>
Message-ID: <uc06b1p4finqkc50mveaubf9c5thhj3up4@4ax.com>
Source record: 74733

On 17 Jun 2005 08:28:45 -0700, "Al" <Arrow146@aol.com> wrote:

>The OSJ is a good entry level to antennas. It get's them on the air,
>so they can learn more.

I agree.

very 73,
Danny, K6MHE

1368. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:13:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <oxDse.24$NW4.1128517@news.sisna.com>
Source record: 74735

Al, Fred, Dan:

Wow, what a demonstration of common sense--and just in time--I'd almost given up on it's existence!

Warmest regards,
John

"Al" <Arrow146@aol.com> wrote in message news:1119022125.075449.206320@o13g2000cwo.googlegroups.com...
> >Damn it Allen, what I am saying is coax is coax and it will behave
> >the
>>same regardless of what antenna it is connected to.
>>
>>I feel you missing the whole point.
>>
>>I am not attacking you antenna. I just disagree with your advise on
>>its installation.
>
> Hello, Danny, K6MHE
>
> I am not missing the point, I just have a different point I have to
> deal with.
> Check the last few posts, especially the one from Roy.
> Can you imagine trying to explain that to some one that don't
> understand why
> the coax he took off an old computer network don't work with his 2
> meter radio.
> You have to realize, a lot of times I am dealing with hams that just
> got their
> license last week. One's that have trouble putting a connector on
> coax.
> A lot of the time they don't even have an SWR meter, or they are
> trying
> to use one from their old CB.
> The ham buying a $39. antenna that don't have to be tuned or adjusted,
> is
> at a different knowledge level than a ham that can set up an EME
> station.
> I am not an antenna guru, I know less about coax & baluns than I know.
> That's why I have been reading this newsgroup for the last 10 years.
> Why heck, I cant even spel.
> The OSJ is a good entry level to antennas. It get's them on the air,
> so
> they can learn more.

> I think I am doing a good service. At least I feel good reading the
> e-mails I get almost every day from people using my antennas.
>
> 73 Al Lowe N0IMW
>

1369. Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:15:51 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <xvDse.32$ik5.1@fe12.lga>
Source record: 74734

One ARRL stand (at Dayton) handed out small, black foam balls that are intended to be stuck on the end of a whip antenna. Stops corona (maybe -- let us skip that discussion).

I do not normally have a transmitter in my truck, so I stuck the ball on my standard truck radio antenna. (It is a 2003 Ford Ranger.) Since doing this I have noticed that the antenna almost always vibrates a little -- even after sitting stopped (engine off) in the garage for many minutes. The ball on the top moves at least 1/8 inch; it is easily seen if I focus on it.

It appears I have a good resonant antenna to sustain this motion for long periods, across an almost 3:1 range (the AM broadcast band) and a bonus VHF range (the FM broadcast band). I assume that Hooke's law (if I remembered the right name for it) applies instead of the break-from-metal-fatigue-or-metal-work-hardening-law will apply such that the antenna does not snap off sometime. Perhaps I should patent this resonant antenna that is almost frequency independent!

Bill
W2WO

1370. Re: FM Antenna and Reception Problems

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:23:23 UTC
From: Bob Haberkost <cbclistener-really!-@canada.com>
Message-ID: <d8v0ub$nc2$1@xuxa.iecc.com>
Source record: 74737
Cross-posted to: misc.consumers.house,rec.radio.amateur.antenna,rec.radio.broadcasting,sci.engr.television.broadcast

"Frank Benton" <FMBENTON@earthlink.net> wrote in message
news:d8facg$o18$1@xuxa.iecc.com...
| TRY WWW.KZQX,COM FOR RECEPTION TIPS. PLUS HEAR SOME GREAT MUSIC.
| "butlercellars" <butlercellars@hotmail.com> wrote in message
| news:d8a846$r6c$1@xuxa.iecc.com...

| > Our local cable company, Comcast, doesn't carry FM radio signals;
| > therefore, I'm trying to improve my FM reception on my home receiver.

One of the antennas I use with some success is what I call my "picture frame" antenna, as it's mounted on a picture frame with the standard dimensions of about 3 by 4 feet (with a "painting" by a Starving Artist or whatever) which gives you a circumference of about 14 feet, or about the wavelength of an FM signal. Buy sufficient *unsheilded* twin-lead from your local electronics supply store, cutting a length sufficient to mount it around the frame, using nails, glue or whatever works to keep it wrapped around the frame.

Taking the excess (you DID buy excess, didn't you?) attach one wire to one of the wires of this loop. Follow the loop around the frame, to assure then that you have the other end of this wire at the other end of the loop. Connect *it* to the remaining wire on the side already connected to your feeder, and then connect the last wire to the free wire on your feeder. The end result is you'll have two loops, at about the correct wavelength for FM. Hams and CB'ers use a similar design, called a cubical quad, which you might see on towers...they're squares, mounted some distance apart, and are very directional.

This antenna is somewhat directional as well. If you have problems with some local strong stations, it might be possible to reduce their strength if your antenna is properly oriented. You can hang the picture directly over your receiver (assuming you don't mind showing an Elvis on velvet) or simply place it behind your stereo cabinet if you have one. Using this antenna I've pulled in stations from over 120 miles away consistently with a good line of sight (Erie PA to Toronto, where most of the FMs were at lower than normal power, high atop the CN Tower), on a receiver not particularly sensitive. Your results may vary.
--

Men born to freedom are naturally alert to repel invasion of their liberty by evil-minded rulers. The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding." -- Justice Brandeis
---

For direct replies, take out the contents between the hyphens. -Really!-

1371. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:24:35 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qHDse.26$XK4.1082491@news.sisna.com>
Source record: 74736

Bill:

"Stops corona?" Or, converts it to heat in the carbon impregnated
Styrofoam material?

John

"Bill Ogden" <wogden@attglobal.net> wrote in message
news:xvDse.32$ik5.1@fe12.lga...
> One ARRL stand (at Dayton) handed out small, black foam balls that are
> intended to be stuck on the end of a whip antenna. Stops corona
> (maybe --
> let us skip that discussion).
>
> I do not normally have a transmitter in my truck, so I stuck the ball
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> standard truck radio antenna. (It is a 2003 Ford Ranger.) Since
> doing this
> I have noticed that the antenna almost always vibrates a little --
> even
> after sitting stopped (engine off) in the garage for many minutes.
> The ball
> on the top moves at least 1/8 inch; it is easily seen if I focus on
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>
> It appears I have a good resonant antenna to sustain this motion for
> long
> periods, across an almost 3:1 range (the AM broadcast band) and a
> bonus VHF
> range (the FM broadcast band). I assume that Hooke's law (if I
> remembered
> the right name for it) applies instead of the
> break-from-metal-fatigue-or-metal-work-hardening-law will apply such
> that
> the antenna does not snap off sometime. Perhaps I should patent this
> resonant antenna that is almost frequency independent!
>
> Bill
> W2WO
>
>

1372. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:34:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7026b1tublvoq7ebaluv6ltpviiffuah1m@4ax.com>
Source record: 74738

On Fri, 17 Jun 2005 12:36:14 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Many here enjoy picking fly crap out of pepper, that is their enjoyment of
>ham radio.

Hi Fred,

I've seen you use this platitude more than once. As much truth as it
may offer, it necessarily presumes there is someone energetically
putting fly crap into the pepper.

I won't tarry to imagine how that is done, however.

73's
Richard Clark, KB7QHC

1373. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:49:14 UTC
From: "mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com>
Message-ID: <1119030554.655906.268810@g14g2000cwa.googlegroups.com>
Source record: 74739

gb wrote:
> Sounds like one fo the Supreme Communication offices in western Illinois,

Greg,

I have no delusions about a long-term relationship here, and certainly not in terms of my being able to effect meaningful change. Rather, my concern is strictly a safety issue. There have already been several minor incidents involving unruly students where a driver may radio in and we have had difficulty receiving/understanding the message. On another occasion a driver stumbled upon a crime in progress at the end of a very rural road. Our driver used her bus to block in a bus driver from another company/district until the police arrived nearly an hour later. Adquate communications is vital under such circumstances.

I refuse to attempt to "manage from the bottom" as the results are unprofitable, counter-productive, and nearly always fatal. I may have taken this as a stop-gap until something else came along, but I do believe that this is an issue worth researching in the hope of making a small but important difference.

PS: Are you hiring? ;)

Mike

1374. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 17:56:06 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <W8Ese.78402$tt5.34403@edtnps90>
Source record: 74740

Found the following interesting site: http://www.df9cy.de/pathloss.htm
There is a downloadable spread sheet concerning moon-bounce path loss. I
have not verified the accuracy of the spread sheet, but it looks reasonable:

From the spread sheet, if you plug in the following parameters:

Power 1 kW;
BW 3 MHz;
Antenna gain 35 dB;
Frequency 2.4 GHz
and many more, such as noise figure, etc.

The received signal will be 40 dB below the noise.

Reducing the bandwidth to 100 Hz the signal will be about 4 dB above the
noise
-- as 10*log(BW1/BW2) will confirm.

Reduction in bandwidth to between 1 and 10 Hz would seem to be desirable.
Stability required is about 0.0004 ppm, not to mention degradation due to
TCXO 1/f noise.

Frank

1375. Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 18:24:14 UTC
From: Ken Knecht <kenkknot@deruknot.com>
Message-ID: <Xns967874658A842kenkderucom@140.99.23.22>
Source record: 74741

Is there a good basic web tutorial I can print out or a book available
for one of the free antenna modeling programs? Preferably one that
matches a still-available version of the software.

73

Ken W9NPP

--
Untie the two knots to email me

"Madness is not a consequence of uncertainty, but of certainty." Nietzche

1376. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 18:27:17 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <9CEse.5349$hK3.2227@newsread3.news.pas.earthlink.net>
Source record: 74742

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:mjp5b1t230gbng2o99ru8tq4paqscl09lr@4ax.com...
> On Fri, 17 Jun 2005 14:24:20 GMT, "Old Ed"
> <eXseniorsDeleteThisAndTheX@earthlink.net> wrote:
>
> >Hi Dan,
> >
> >My, you are a bit on the arrogant and foul-mouthed side, aren't you!
>
> Foul-mouthed?
>
My working definition includes name calling. But I would like
to see us all get along in a positive way, so no grudges here.

1377. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 18:50:00 UTC
From: Dan Richardson <k6mhe>
Message-ID: <5d66b1t808395mlv9g682sdnhll8a4m53m@4ax.com>
Source record: 74743

On Fri, 17 Jun 2005 18:24:14 GMT, Ken Knecht <kenkknot@deruknot.com>
wrote:

>Is there a good basic web tutorial I can print out or a book available
>for one of the free antenna modeling programs? Preferably one that
>matches a still-available version of the software.

Ken,

About the best place to start would be L.B. Cebik's web site
http://www.cebik.com/radio.html

Also the help manual which is included with EZNEC has excellent
information.

And if you are not opposed to spending some money the ARRL offers a
course on antenna modeling. I believe it is possible to purchase the
course text book without taking the course. That book was written by
LB also.

73
Danny, K6MHE

1378. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 19:34:14 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Mv6dnUAAPbxeuC7fRVn-pA@comcast.com>
Source record: 74744

"mccall.mike.nospam@gmail.com" <mccall.mike@gmail.com> wrote in message
news:1119030554.655906.268810@g14g2000cwa.googlegroups.com...
> gb wrote:
>> Sounds like one fo the Supreme Communication offices in western Illinois,
>
> Greg,
>
> I have no delusions about a long-term relationship here, and certainly
> not in terms of my being able to effect meaningful change. Rather, my
> concern is strictly a safety issue.
>
> I refuse to attempt to "manage from the bottom" as the results are
> unprofitable, counter-productive, and nearly always fatal. I may have
> taken this as a stop-gap until something else came along, but I do
> believe that this is an issue worth researching in the hope of making a
> small but important difference.
>
> PS: Are you hiring? ;)
>
> Mike
>

We were hiring a few key positions earlier this year (January/February), but
not currently. Summer tends to be a slow time of year for our clients --
due to vacations, holidays, etc.

gb

1379. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 19:36:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2f876$42b3262a$97d55d24$32558@ALLTEL.NET>
Source record: 74745

It is always present Richard, but only the most anal take the time to pick it out.

The similarity in appearence requires a very exacting inspection.

This is best carried out by the same people who would worry about the last .01 dB of gain, removing the last milliwatt of coax radiation, and other esoteric stuff that means as much as the fly crap.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:7026b1tublvoq7ebaluv6ltpviiffuah1m@4ax.com...
> On Fri, 17 Jun 2005 12:36:14 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Many here enjoy picking fly crap out of pepper, that is their enjoyment of
> >ham radio.
>
> Hi Fred,
>
> I've seen you use this platitude more than once. As much truth as it
> may offer, it necessarily presumes there is someone energetically
> putting fly crap into the pepper.
>
> I won't tarry to imagine how that is done, however.
>
> 73's
> Richard Clark, KB7QHC

1380. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:01:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cpa6b1h58kc827ppfs646mci9r0n1mera3@4ax.com>
Source record: 74746

On Fri, 17 Jun 2005 15:36:05 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
>It is always present Richard, but only the most anal take the time to pick
>it out.

OK Fred,

I said I didn't want to dwell on how they enriched the pepper in the
first place, sooo....

Did you hear about the architect with constipation?
He worked it out with a ruler.

Did you hear about the scientist with constipation?
He worked it out with a slide rule.

Did you hear about the engineer with constipation?
He worked it out with a calculator.

Did you hear about the draftsman with constipation?
He worked it out with a compass.

Dare me again.

1381. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:07:48 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <L1Gse.133947$J25.61029@bignews6.bellsouth.net>
Source record: 74747

The tenna-topper used to be Orange styrofoam - free with a fillup at the
"Union-76" station on the corner. (late 60's)
I don't think it stops corona or helps or harms the antenna in any way -
unless by making it easier to blow down.
One interesting experiment to try is put a ohmmeter on it - and - If
infinity, then maybe borrow a megger.

"Bill Ogden" <wogden@attglobal.net> wrote in message
news:xvDse.32$ik5.1@fe12.lga...
> One ARRL stand (at Dayton) handed out small, black foam balls that are
> intended to be stuck on the end of a whip antenna. Stops corona (maybe --
> let us skip that discussion).
>
> I do not normally have a transmitter in my truck, so I stuck the ball on
my
> standard truck radio antenna. (It is a 2003 Ford Ranger.) Since doing
this
> I have noticed that the antenna almost always vibrates a little -- even
> after sitting stopped (engine off) in the garage for many minutes. The
ball
> on the top moves at least 1/8 inch; it is easily seen if I focus on it.
>
> It appears I have a good resonant antenna to sustain this motion for long
> periods, across an almost 3:1 range (the AM broadcast band) and a bonus
VHF
> range (the FM broadcast band). I assume that Hooke's law (if I remembered
> the right name for it) applies instead of the
> break-from-metal-fatigue-or-metal-work-hardening-law will apply such that
> the antenna does not snap off sometime. Perhaps I should patent this
> resonant antenna that is almost frequency independent!
>
> Bill
> W2WO
>
>

1382. Re: Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:19:39 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ScGse.133953$J25.118885@bignews6.bellsouth.net>
Source record: 74748

That's a good example of the ham spirit of experimentation.
A different antenna design might start with someone saying "I wonder how it would work if I made this change."..
I tried a different style once - multiple home-made coils on a long antenna - I need to revisit that experiment now that I have the MFJ Antenna Analyzer.

"Buck" <iam@this.site> wrote in message
news:lc74b1pnrmgj2caujco5l3slv8kbnkhrqv@4ax.com...
> I had a 20 meter dipole about 65 feet over the house. The antenna had
> a flat swr on 14.336 where I often hang out. On the low end, it was
> too high to use below 14.020 so I only lost use of a portion of the
> extra portion without a tuner. (flat defined as according to the 706
> MKII internal meter.)
>
> This evening I cut a pair of wires 4.5 feet long each. I added them
> to the 20 meter connection center connection at the coax and let them
> hang about 8 inches below the 20 meter wire. I also changed coax from
> cable-tv coax to RG-8 foam. I rearanged the antenna just a little
> with also allowed for an additional 10 feet of height. I now have a
> 20/6 meter dipole at about 75 feet high with the legs pointed almost
> exactly east and west.. 20 meters is now flat at 14.030 and the top
> edge of the band is only 1.3:1. The 6 meter dipole turned out to be
> flat on 50.1.
>
> So far, I am quite happy with the antenna. I am having a 6 meter QSO
> as I write this. (The other party loves to talk and hasn't unkeyed
> for at least 5 full minutes.)
>
> Based on our current conversation, It appears that my next antenna
> will be a loop.
>
> Comments are welcome,
>
> Thank you,
>
>
> --
> 73 for now
> Buck
> N4PGW

1383. Re: Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:27:28 UTC
From: nm5k@wt.net
Message-ID: <1119040048.897931.152380@z14g2000cwz.googlegroups.com>
Source record: 74749

Based on our current conversation, It appears that my next antenna
will be a loop.

Comments are welcome,

Ok...Live a little...Build a yagi for 6m...Will smoke the
dipoles and loops, etc...I built a 3 el NBS yagi all from
hard drawn copper tubing. I think it cost about $20 or
so for the tubing...I built it all one piece using a torch to
weld the elements to the copper boom. The elements
are 1/2 inch. The boom , 1 inch I think...
Actually on 6m, anything is probably ok...But my 706
does not like big wire antennas. Brings in too much
HF signals, and trashes the receiver..Using the yagi,
it's pretty clean. You'd probably see the same thing,
being you are using the same radio...Mine is a mk2g,
but 6m is probably the same appx circuit...Myself,
I don't see a loop really being much better than a
dipole..There won't be any mistake switching to a
yagi... :) MK

1384. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:27:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b6ci0kie9s96f@corp.supernews.com>
Source record: 74750

Fred W4JLE wrote:
> It is always present Richard, but only the most anal take the time to pick
> it out.
>
> The similarity in appearence requires a very exacting inspection.
>
> This is best carried out by the same people who would worry about the last
> .01 dB of gain, removing the last milliwatt of coax radiation, and other
> esoteric stuff that means as much as the fly crap.

The ironic thing is that it often requires some knowledge to be able to tell which effects are fly crap and which are important. I sometimes get the impression that people who offhandedly dismiss certain effects as fly crap don't really have the knowledge to judge. Thinking that the discussion we've been having involves 0.01 dB of gain and milliwatts of coax radiation indicates a lack of understanding of the possible magnitudes of the effects we're talking about.

"Fly crap" is also a very relative thing. Most people are perfectly able to decide what's adequate for their purposes. A person who's 20 over 9 talking to his good buddies, and that's his sole goal, could care less if his antenna is 10% efficient or radiating mostly straight up. To him, efficiency and radiation angle are fly crap, and appropriately so.

That doesn't mean it's fly crap to everybody else.

Roy Lewallen, W7EL

1385. Re: Ham/electronics stores in LA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:32:17 UTC
From: patgkz <patgkz@new.rr.com>
Message-ID: <lrGse.16077$ll2.6010@tornado.rdc-kc.rr.com>
Source record: 74751
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.hf,rec.radio.amateur.boatanchors

TRW swap meet still around?

"Shadow998" <HRD998cc@yahoo.coom> wrote in message
news:m7Dse.3600$Pa5.2667@newssvr21.news.prodigy.com...
>
> I will be in Ontario and Los Angeles, CA area this weekend and will have a
> lot of free time. Are there any good electronics/Ham stores in that you
> would recommend? Electronic Surplus stores that have radio gear/parts are
> a
> plus as well.
>
> I have an internet connection at my hotel, so any responses anytime this
> weekend will be read.
>
> Thanks!
>
> Russ W6OHM
>
>

1386. "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 20:48:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b337fc$1_1@spool9-west.superfeed.net>
Source record: 74752

It has been said that the energy stored in the standing waves
of a transmission line just "sloshes" around.

We can demonstrate standing waves using a laser beam normal to
a perfect mirror. There are points of maximum irradiance and
points of minimum irradiance in the standing waves. So does
the EM energy in the standing waves of light in free space
"slosh" around like the energy in the standing waves in a
transmission line? If so, where does the inductance and
capacitance in free space come from to generate that 377 ohms
of characteristic impedance? If not, then why do the EM waves
in a transmission line behave differently than the EM waves
in free space? What different laws of physics do photonic waves
in transmission lines obey than do photonic waves in free
space? Of the E-field and H-fields rules for EM waves in free
space, which of those rules are violated by EM waves in a
transmission line? Is there one set of Maxwell's equations for
free space and a separate set for transmission lines? Did
Maxwell ever mention the scientific concept of "sloshing"?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1387. Re: Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 21:10:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8ve8f$fn9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74753

The trouble with a 2 or more element yagi is it has to be rotatable.

Simple dipoles and loops do not.

Reg, G4FGQ

1388. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 21:18:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8ven2$i57$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74754

> Thinking that the
> discussion we've been having involves 0.01 dB of gain and milliwatts
of
> coax radiation indicates a lack of understanding of the possible
> magnitudes of the effects we're talking about.
>
> Roy Lewallen, W7EL
==========

Roy, quite correct. You've been reading Lord Kelvin again.

Reg.

1389. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 21:18:35 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11b6fh8fc3hhj5f@corp.supernews.com>
Source record: 74755

Cecil Moore wrote:

> It has been said that the energy stored in the standing waves
> of a transmission line just "sloshes" around.
>
> We can demonstrate standing waves using a laser beam normal to
> a perfect mirror. There are points of maximum irradiance and
> points of minimum irradiance in the standing waves. So does
> the EM energy in the standing waves of light in free space
> "slosh" around like the energy in the standing waves in a
> transmission line?

Yes -- there's energy actively bouncing around in that there beam; if you could reduce it down to one laser burst that was shorter than the distance between the laser and the mirror you'd (in theory at least) be able to see it.

> If so, where does the inductance and
> capacitance in free space come from to generate that 377 ohms
> of characteristic impedance?

They don't. The behavior of EM radiation in free space is described by Maxwell's laws. The 377 ohms of characteristic impedance comes from the permittivity and permiability of free space but inductance and capacitance are only meaningful concepts if you have conductors in your model.

> If not, then why do the EM waves
> in a transmission line behave differently than the EM waves
> in free space?

Because they're bounded by conductors.

> What different laws of physics do photonic waves
> in transmission lines obey than do photonic waves in free
> space?

None. They obey Maxwell's laws.

> Of the E-field and H-fields rules for EM waves in free
> space, which of those rules are violated by EM waves in a
> transmission line?

None.

> Is there one set of Maxwell's equations for
> free space and a separate set for transmission lines?

No, just different boundary conditions to start.

All this is covered in a good college E&M course. I wish I had an E&M book that I could recommend for self-study, but I don't. Mine is "Elements of Engineering Electromagnetics", but I took a course. I don't think I would have been able to just pick up the book and learn it from there.

> Did
> Maxwell ever mention the scientific concept of "sloshing"?

Who knows? And was he talking about light waves or a wee dram of whiskey at the end of the day?

As hard as it may be to believe for anyone who's gone through an E&M course the original form of Maxwell's equations were more difficult to comprehend than the way there're usually presented now -- the vector notation that is currently used either wasn't around then or wasn't in widespread use.

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1390. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 21:27:38 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b311c$42b3404e$97d55d24$8037@ALLTEL.NET>
Source record: 74756

Ooooh! Did I stumble upon a sore nerve Roy? No one in particular was referenced and all names were changed to protect the innocent.

If you feel my example covered, or in anyway was directed towards any of your past or current waltzing on the pin, it is you who fail to understand my previous post.

I was simply pointing out that it is sometimes better to simply put up an antenna, make contacts, and enjoy the fellowship of other amateurs.

The rec.radio.amateur.antenna version of "All My Children" (An American daytime soap opera, by way of explaination, for our British friend Reg) provides endless entertainment, with the occasional bit of useful information. If some may find my observation untoward, mores the pity!

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11b6ci0kie9s96f@corp.supernews.com...
> Fred W4JLE wrote:
> > It is always present Richard, but only the most anal take the time to
pick
> > it out.
> >
> > The similarity in appearence requires a very exacting inspection.
> >
> > This is best carried out by the same people who would worry about the
last
> > .01 dB of gain, removing the last milliwatt of coax radiation, and other
> > esoteric stuff that means as much as the fly crap.
>
> The ironic thing is that it often requires some knowledge to be able to
> tell which effects are fly crap and which are important. I sometimes get
> the impression that people who offhandedly dismiss certain effects as
> fly crap don't really have the knowledge to judge. Thinking that the
> discussion we've been having involves 0.01 dB of gain and milliwatts of
> coax radiation indicates a lack of understanding of the possible
> magnitudes of the effects we're talking about.
>
> "Fly crap" is also a very relative thing. Most people are perfectly able
> to decide what's adequate for their purposes. A person who's 20 over 9
> talking to his good buddies, and that's his sole goal, could care less
> if his antenna is 10% efficient or radiating mostly straight up. To him,
> efficiency and radiation angle are fly crap, and appropriately so.
>
> That doesn't mean it's fly crap to everybody else.
>

> Roy Lewallen, W7EL

1391. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 21:57:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d6h6b190tjtk2ati3iuqdplb4epevd3fps@4ax.com>
Source record: 74757

On Fri, 17 Jun 2005 15:48:08 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>We can demonstrate standing waves using a laser beam normal to a perfect mirror.
"We?"

Let's see, a hypothetical argument, involving
a hypothetical "We," performing
a hypothetical analysis that contains 0 places of precision, yielding
a hypothetical answer that will be
hypothetically true and
hypothetically false
hypothetically

"It was the best of times, it was the worst of times."

1392. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:08:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8vhle$26u$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74758

> Is there a good basic web tutorial I can print out or a book
available
> for one of the free antenna modeling programs? Preferably one that
> matches a still-available version of the software.
>
> Ken W9NPP
>
It depends on what characteristics of antennas you wish to examine by
modelling techniques.

Efficiency, bandwidth, tuner component values, effect of ground
electrodes, feedpoint impedances, feedline loss, radiation resistance,
etc. Or just radiation patterns and take-off angles which most people
already know about for simple antennas.

Reg.

1393. Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:18:26 UTC
From: Owen <none@no.where>
Message-ID: <S_Hse.20702$F7.11504@news-server.bigpond.net.au>
Source record: 74760

I note that any textbook I pick up shows that VSWR=(1+rho)/(1-rho) where rho is the magnitude of Gamma (Gamma=(Z-Zo)/(Z+Zo)); rho=abs(Gamma)).

Now, reading TL theory texts can be confusing because of the sometimes subtle swithes to and from an assumption of lossless line (under which rho cannot exceed 1).

Since VSWR is the ratio of the magnitude of the voltage at a maximum in the standing wave pattern to the magnitude of the voltage at a minimum in the standing wave pattern, if we are to infer SWR at a point on a line (if that makes sense anyway) from rho (which is a property of a point on a lossy line), isn't the formula VSWR=abs(1+rho)/abs(1-rho) correct in the general case (lossy or lossless line)?

Given that rho cannot be negative (since it is the magnitude of a complex number), the general formula can be simplified to VSWR=(1+rho)/abs(1-rho).

Seems to me that texts almost universally omit the absolute operation on the denominator without necessarily qualifying it with the assumption of lossless line.

If VSWR=(1+rho)/abs(1-rho), then doesn't it follow that rho is not a function of VSWR (except in the lossless line case where VSWR=(1+rho)/(1-rho) and therefore rho=(VSWR-1)/(VSWR+1))?

Thoughts?

Owen

1394. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:19:56 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <g0lse.78525$tt5.7888@edtnps90>
Source record: 74759

> All this is covered in a good college E&M course. I wish I had an E&M
> book that I could recommend for self-study, but I don't. Mine is
> "Elements of Engineering Electromagnetics", but I took a course. I don't
> think I would have been able to just pick up the book and learn it from
> there.

I would recommend:

Introduction to Electromagnetic Fields, by Paul and Nasar, 3rd edition.
ISBN: 0070460833. Available from www.bn.com, used, from $59. The review of
vector calculus in the first two chapters is excellent. The text covers
plane waves incident on material boundaries (and the resultant standing
waves). It also covers transmission lines.

Regards,

Frank

1395. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:26:09 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <56lse.4057$Pa5.3821@newssvr21.news.prodigy.com>
Source record: 74761

Tim Wescott wrote:
> Cecil Moore wrote:
>
>> It has been said that the energy stored in the standing waves
>> of a transmission line just "sloshes" around.
>>
>> We can demonstrate standing waves using a laser beam normal to
>> a perfect mirror. There are points of maximum irradiance and
>> points of minimum irradiance in the standing waves. So does
>> the EM energy in the standing waves of light in free space
>> "slosh" around like the energy in the standing waves in a
>> transmission line?
>
>
> Yes -- there's energy actively bouncing around in that there beam; if
> you could reduce it down to one laser burst that was shorter than the
> distance between the laser and the mirror you'd (in theory at least) be
> able to see it.
>
>> If so, where does the inductance and
>> capacitance in free space come from to generate that 377 ohms
>> of characteristic impedance?
>
>
> They don't. The behavior of EM radiation in free space is described by
> Maxwell's laws. The 377 ohms of characteristic impedance comes from the
> permittivity and permiability of free space but inductance and
> capacitance are only meaningful concepts if you have conductors in your
> model.
>
>> If not, then why do the EM waves
>> in a transmission line behave differently than the EM waves
>> in free space?
>
>
> Because they're bounded by conductors.
>
>> What different laws of physics do photonic waves
>> in transmission lines obey than do photonic waves in free
>> space?
>
>
> None. They obey Maxwell's laws.
>

>> Of the E-field and H-fields rules for EM waves in free
>> space, which of those rules are violated by EM waves in a
>> transmission line?
>
>
> None.
>
>> Is there one set of Maxwell's equations for
>> free space and a separate set for transmission lines?
>
>
> No, just different boundary conditions to start.
>
> All this is covered in a good college E&M course. I wish I had an E&M
> book that I could recommend for self-study, but I don't. Mine is
> "Elements of Engineering Electromagnetics", but I took a course. I
> don't think I would have been able to just pick up the book and learn it
> from there.
>
>> Did
>> Maxwell ever mention the scientific concept of "sloshing"?
>
>
> Who knows? And was he talking about light waves or a wee dram of
> whiskey at the end of the day?
>
> As hard as it may be to believe for anyone who's gone through an E&M
> course the original form of Maxwell's equations were more difficult to
> comprehend than the way there're usually presented now -- the vector
> notation that is currently used either wasn't around then or wasn't in
> widespread use.
>
> --
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

Hi Tim,
Cecil is just trying to crowd Roy into slapping leather
(figuratively speaking). Cecil thinks he already knows the
answer to all these questions, so there's no
point in answering him. He'll be at it for awhile, until he
realizes rhetorical confrontation won't work.
73,
Tom Donaly, KA6RUH

1396. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:28:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8viq5$272$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74762

"Fred W4JLE" wrote
> The rec.radio.amateur.antenna version of "All My Children" (An
American
> daytime soap opera, by way of explaination, for our British friend
Reg)
> provides endless entertainment, with the occasional bit of useful
> information. If some may find my observation untoward, mores the
pity!
>
==========

Yes. Education always sticks better if mixed with entertainment.
Recipients don't realise they've got the message.

BBC political propaganda works that way and so maintains its
reputation.

Reg.

1397. Re: Service Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:31:57 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <xbIse.3589$NU5.3047@newssvr13.news.prodigy.com>
Source record: 74763

So does Larsen-- their "OS" series antennas for vhf (1/2 wavelength,
base loaded), also, radials can be formed from burglar alarm window
tape- stuff is made to stick to surfaces. Rip-Off shack sells the
stuff, among others! (might not want to run a KW useing this tape, but
should be ok for 50 watts, or so) Jim NN7K

mccall.mike.nospam@gmail.com wrote:
> gb wrote:
>
>>Mike -
>>
>>VERY USEFUL INFORMATION.
>>
>>Yes, fiberglass is worthless for the required ground plane of a 1/4 wave UHF
>>antenna - and requires additional materials.
>>PCTEL based in the Chicago area is a major antenna mfg. and suppliers (e.g.
>>MAXRAD, Antenna Specialists).
>>
>>They have 2 suitable products specifically made for fiberglass body vehicles
>>and antenna mounting (Page 44 of their catalog)
>>http://www.antenna.com/lm_cat/pdf/lmr_catalog.pdf
>>Ground Plane Kit Model K-67
>>
>>Ground plane kit for fiberglass-bodied vehicles. Complete with instructions
>>and sufficient adhesive backed foil for one low-band/high-band or six UHF
>>ground planes (3 inches x 44 ft). Includes metal clips for circuit
>>continuity.
>>
>>Ground Plane Disk Model K-332
>>
>>Provides ground plane for fiberglass-bodied vehicles.
>>
>>THIS NEEDS TO BE ADDED TO THE "BILL of MATERIALS that you are ordering from
>>the "local company" supplying the radio and antenna materials
>>

1398. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:37:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8vjah$32g$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74764

"Richard Clark" wrote -
> "It was the best of times, it was the worst of times."

==========

Richard, now you're plagiarising Charles Dickens.

Reg.

1399. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:40:44 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <MjIse.4063$Pa5.1110@newssvr21.news.prodigy.com>
Source record: 74766

One consideration is that Magnetrons are NOT designed, normally for ccs service-- they are designed for "PULSE" service, even the ovens- (duty cycle of MUCH less then even .5) and, pulse transmissions arn't looked favorably on many of the microwave bands any more.

Anchor wrote:
> Frank,
>
> Thanks for the advise.
>
> Obviously if it was trivial to modify magnetrons for communications in the
> 13 cm S band, there would be a lot of high power activity on that band and
> fewer dead microwave ovens in landfill sites.
>
> Surely a near KW of radio energy can be used for more than re-warming
> left-overs. Maybe not.

1400. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:40:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b6kbndgiao6a3@corp.supernews.com>
Source record: 74765

Tim Wescott wrote:
> . . .
> All this is covered in a good college E&M course. I wish I had an E&M
> book that I could recommend for self-study, but I don't. Mine is
> "Elements of Engineering Electromagnetics", but I took a course. I
> don't think I would have been able to just pick up the book and learn it
> from there.
> . . .

A few months ago, I came upon a book that really looks like it might fill the bill: _Engineering Electromagnetics_ by Nathan Ida. The text is clear but doesn't skimp on math or theory. At the end of each section, there are numerous examples showing how the concept is applied in the solution of real problems -- something sorely missing in most other texts and, for that matter, in a lot of college courses. For example, after the "Inductance and Inductance" section in the "Magnetic Materials and Properties" chapter are the following fully worked and explained examples:

Application: Self-inductance of a toroidal coil
Application: Self-inductance of a long solenoid - Inductance per unit length
Application: Inductance per unit length of coaxial cables
Application: Mutual inductance between a wire and a toroidal core - core memory
Mutual inductance between straight wire and loop
Self- and mutual inductances in multiple coils

It's sort of like a Shaum's Outlines and textbook combined, but in a way that you can see the transition from the theory to practice. It's also a good reference to use later on.

And the answers to all the problems (but no details about how they were solved) are at the back of the book.

I was lucky and found a used one at Powell's while browsing in their technical bookstore, but even new it's a bargain.

Roy Lewallen, W7EL

1401. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:52:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d8vk7calc1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74767

```
> >> Did
> >> Maxwell ever mention the scientific concept of "sloshing"?
> >
No. The electron had not yet been discovered.
```

1402. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 22:57:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b6lbk8q41iud8@corp.supernews.com>
Source record: 74768

Owen wrote:
> I note that any textbook I pick up shows that VSWR=(1+rho)/(1-rho) where
> rho is the magnitude of Gamma (Gamma=(Z-Zo)/(Z+Zo)); rho=abs(Gamma)).
>
> Now, reading TL theory texts can be confusing because of the sometimes
> subtle swithes to and from an assumption of lossless line (under which
> rho cannot exceed 1).

To complicate matters, roughly half the textbooks use rho instead of Gamma for the complex reflection coefficient. You've got to be careful.

> Since VSWR is the ratio of the magnitude of the voltage at a maximum in
> the standing wave pattern to the magnitude of the voltage at a minimum
> in the standing wave pattern, if we are to infer SWR at a point on a
> line (if that makes sense anyway) from rho (which is a property of a
> point on a lossy line), isn't the formula VSWR=abs(1+rho)/abs(1-rho)
> correct in the general case (lossy or lossless line)?

The whole concept of VSWR gets flakey on a lossy line, and really loses its meaning. It's often analytically convenient to define a quantity at a point and call it "VSWR", although in the presence of loss it no longer means the ratio of maximum to minimum voltage on the line. Since it's lost its original meaning, it comes to mean just about anything you'd like. And the generally accepted definition then is the equation you gave in your first paragraph. That is, in the presence of loss, VSWR is something which is *defined* by that equation, rather than the equation being a means of calculating some otherwise defined property.

Under the right conditions and if loss is large enough, rho can be greater than 1, in which case the VSWR as defined by the equation in the first paragraph becomes negative. Again, this is no longer a ratio of voltages along a line, but a quantity defined by an equation. If you alter the equation, you're defining a different quantity. Now, there's no reason that your "VSWR" definition isn't just as good as the conventional one (first paragraph equation). But the conventional one is pretty universally used, and yours is different, so if you're interested in communicating, it would be wise to give it a different name or at least carefully show what you mean when you use it.

> Given that rho cannot be negative (since it is the magnitude of a
> complex number), the general formula can be simplified to
> VSWR=(1+rho)/abs(1-rho).

But it can be greater than one. See above.

> Seems to me that texts almost universally omit the absolute operation on
> the denominator without necessarily qualifying it with the assumption of
> lossless line.
>
> If VSWR=(1+rho)/abs(1-rho), then doesn't it follow that rho is not a
> function of VSWR (except in the lossless line case where
> VSWR=(1+rho)/(1-rho) and therefore rho=(VSWR-1)/(VSWR+1))?

Rho is never a function of VSWR. VSWR is a function of rho. Unlike
actual VSWR (that is, the ratio of maximum to minimum voltage along a
line), the reflection coefficient can be and is rigorously and
meaningfully defined at any point along a line, lossy or not.

Roy Lewallen, W7EL

1403. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-17 23:42:07 UTC
From: Owen <none@no.where>
Message-ID: <jdJse.20746$F7.3677@news-server.bigpond.net.au>
Source record: 74769

Roy Lewallen wrote:
> Owen wrote:
>
>>
>> I note that any textbook I pick up shows that VSWR=(1+rho)/(1-rho)
>> where rho is the magnitude of Gamma (Gamma=(Z-Zo)/(Z+Zo));
>> rho=abs(Gamma)).
...
>> property of a point on a lossy line), isn't the formula
>> VSWR=abs(1+rho)/abs(1-rho) correct in the general case (lossy or
>> lossless line)?
>
>
> The whole concept of VSWR gets flakey on a lossy line, and really loses
> its meaning. It's often analytically convenient to define a quantity at
> a point and call it "VSWR", although in the presence of loss it no
> longer means the ratio of maximum to minimum voltage on the line. Since

Indeed. It occurs to me that if one was to try to measure VSWR (say
using a slotted line with probe) on a lossy line operating at high VSWR,
the best estimate would come from finding a minimum, measuring it and
the adjacent maxima and calculating VSWR=(Vmax1+Vmax2)/Vmin/2 so that
the measurement is biassed towards the notional VSWR at the point of the
minimum (the minimum being much more sensitive to line attenuation than
the maxima).

> it's lost its original meaning, it comes to mean just about anything
> you'd like. And the generally accepted definition then is the equation
> you gave in your first paragraph. That is, in the presence of loss, VSWR
> is something which is *defined* by that equation, rather than the
> equation being a means of calculating some otherwise defined property.

Noted
>
> Under the right conditions and if loss is large enough, rho can be
> greater than 1, in which case the VSWR as defined by the equation in the
> first paragraph becomes negative. Again, this is no longer a ratio of
> voltages along a line, but a quantity defined by an equation. If you
> alter the equation, you're defining a different quantity. Now, there's
> no reason that your "VSWR" definition isn't just as good as the
> conventional one (first paragraph equation). But the conventional one is
> pretty universally used, and yours is different, so if you're interested
> in communicating, it would be wise to give it a different name or at
> least carefully show what you mean when you use it.
>

>> Given that rho cannot be negative (since it is the magnitude of a
>> complex number), the general formula can be simplified to
>> VSWR=(1+rho)/abs(1-rho).
>
>
> But it can be greater than one. See above.

Agreed.

>
>> Seems to me that texts almost universally omit the absolute operation
>> on the denominator without necessarily qualifying it with the
>> assumption of lossless line.
>>
>> If VSWR=(1+rho)/abs(1-rho), then doesn't it follow that rho is not a
>> function of VSWR (except in the lossless line case where
>> VSWR=(1+rho)/(1-rho) and therefore rho=(VSWR-1)/(VSWR+1))?
>
>
> Rho is never a function of VSWR. VSWR is a function of rho. Unlike

I mean't function in the sense that there is one and only one value of
f(x) for x, rather than in the causual sense.

> actual VSWR (that is, the ratio of maximum to minimum voltage along a
> line), the reflection coefficient can be and is rigorously and
> meaningfully defined at any point along a line, lossy or not.

Agreed.

Thanks for your exhaustive reply Roy, it is appreciated.

What I glean from this is that although Gamma and therefore rho are well
defined, and both are a function of position on a line in the general
case, the "accepted mathematical definition" of VSWR in terms of rho
does not behave well (eg producing a negative value) in some cases and
is not a good estimator of real VSWR in those cases.

It seems fair to say that the reason that the "accepted mathematical
definition" of VSWR does not behave well is that it depends on an
assumption of a distortionless line (Xo=0). (Lossless lines are
distortionless but the converse is not necessarily true).

I take your point about the need to qualify a different algorithm by a
different name.

Thanks again.

Owen

1404. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 00:43:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b36f1e$1_2@spool9-west.superfeed.net>
Source record: 74770

Tim Wescott wrote:
> All this is covered in a good college E&M course.

Uhhhh Tim, those were rhetorical questions aimed at people
who believe that the energy in EM waves can slosh around
at sub-light speeds. Where the heck did that idea come
from anyway?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1405. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 00:49:29 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <wcKse.1021$wm2.131@fe05.lga>
Source record: 74771

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11b6lbk8q41iud8@corp.supernews.com...
> Owen wrote:
>>
>> I note that any textbook I pick up shows that VSWR=(1+rho)/(1-rho) where rho
>> is the magnitude of Gamma (Gamma=(Z-Zo)/(Z+Zo)); rho=abs(Gamma)).
>>
>> Now, reading TL theory texts can be confusing because of the sometimes subtle
>> swithes to and from an assumption of lossless line (under which rho cannot
>> exceed 1).
>
> To complicate matters, roughly half the textbooks use rho instead of Gamma for
> the complex reflection coefficient. You've got to be careful.
>
>> Since VSWR is the ratio of the magnitude of the voltage at a maximum in the
>> standing wave pattern to the magnitude of the voltage at a minimum in the
>> standing wave pattern, if we are to infer SWR at a point on a line (if that
>> makes sense anyway) from rho (which is a property of a point on a lossy
>> line), isn't the formula VSWR=abs(1+rho)/abs(1-rho) correct in the general
>> case (lossy or lossless line)?
>
> The whole concept of VSWR gets flakey on a lossy line, and really loses its
> meaning. It's often analytically convenient to define a quantity at a point
> and call it "VSWR", although in the presence of loss it no longer means the
> ratio of maximum to minimum voltage on the line. Since it's lost its original
> meaning, it comes to mean just about anything you'd like. And the generally
> accepted definition then is the equation you gave in your first paragraph.
> That is, in the presence of loss, VSWR is something which is *defined* by that
> equation, rather than the equation being a means of calculating some otherwise
> defined property.
>
> Under the right conditions and if loss is large enough, rho can be greater
> than 1, in which case the VSWR as defined by the equation in the first
> paragraph becomes negative. Again, this is no longer a ratio of voltages along
> a line, but a quantity defined by an equation. If you alter the equation,
> you're defining a different quantity. Now, there's no reason that your "VSWR"
> definition isn't just as good as the conventional one (first paragraph
> equation). But the conventional one is pretty universally used, and yours is
> different, so if you're interested in communicating, it would be wise to give
> it a different name or at least carefully show what you mean when you use it.
>
>> Given that rho cannot be negative (since it is the magnitude of a complex
>> number), the general formula can be simplified to VSWR=(1+rho)/abs(1-rho).
>

> But it can be greater than one. See above.
>
>> Seems to me that texts almost universally omit the absolute operation on the
>> denominator without necessarily qualifying it with the assumption of lossless
>> line.
>>
>> If VSWR=(1+rho)/abs(1-rho), then doesn't it follow that rho is not a function
>> of VSWR (except in the lossless line case where VSWR=(1+rho)/(1-rho) and
>> therefore rho=(VSWR-1)/(VSWR+1))?
>
> Rho is never a function of VSWR. VSWR is a function of rho. Unlike actual VSWR
> (that is, the ratio of maximum to minimum voltage along a line), the
> reflection coefficient can be and is rigorously and meaningfully defined at
> any point along a line, lossy or not.
>
> Roy Lewallen, W7EL

Good response, Roy, but concerning rho and gamma to represent reflection coefficient, I refer you to Reflections, Sec 3.1,

"Prior to the 1950s rho and sigma, and sometimes 'S' were used to represent standing wave ratio. The symbol of choice to represent reflection coefficient during that era was upper case gamma. However, in 1953 the American Standards Association (now the NIST) announced in its publication ASA Y10.9-1953, that rho is to replace gamma for reflection coefficient, with SWR to represent standing wave ratio (for either voltage or current), and VSWR specifically for voltage standing wave ratio. Most of academia responded to the change, but some individuals did not. Consequently, gamma is occasionally seen representing reflection coefficent, but only rarely."

Hope this clarifies any misunderstanding concerning the use of gamma for reflection coefficient.

Incidentally, Roy, I recently mailed you a CD containing Laport's book, "Radio Antenna Engineering." I'm wondering if you received it, or did it go astray?

Walt, W2DU

1406. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 00:51:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b370f7$1_1@spool9-west.superfeed.net>
Source record: 74772

Owen wrote:
> Thanks for your exhaustive reply Roy, it is appreciated.

It's time to barbecue the virtual reflection coefficient
sacred cow or at least understand that it deviates from
the field of optics and S-parameter analysis.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1407. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 00:57:43 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ekKse.1022$wm2.460@fe05.lga>
Source record: 74773

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d8vjah$32g$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Richard Clark" wrote -
>> "It was the best of times, it was the worst of times."
>
> ============================
>
> Richard, now you're plagiarising Charles Dickens.
> ----
> Reg.
>
Cecil, define 'sloshing.'

Walt,W2DU

1408. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 00:58:05 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11b6scrh3uuv3be@corp.supernews.com>
Source record: 74774

Cecil Moore wrote:

> Tim Wescott wrote:
>
>> All this is covered in a good college E&M course.
>
>
> Uhhhh Tim, those were rhetorical questions aimed at people
> who believe that the energy in EM waves can slosh around
> at sub-light speeds. Where the heck did that idea come
> from anyway?

If you're responding to something you should post things as a followup, even if it's a continuing argument -- saves us new folks to the list some confusion.

Besides, energy in EM waves can and does travel (or "slosh around", if there's reflections) at sub-light speeds, specifically in coax, waveguides and just about any bulk material (including air) that has an index of refraction higher than 1.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1409. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 01:10:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3os6b1ln1plann0ut0i72k1urbofghn12r@4ax.com>
Source record: 74675

On Fri, 17 Jun 2005 22:37:05 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Richard, now you're plagiarising Charles Dickens.

Ah Reg,

"'t'is a far, far better thing that I do, than I have ever done"

Straight from Ronald Colman, Old Son. (who the dickens is Charles?)

73's
Richard Clark, KB7QHC

1410. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 01:30:01 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <tOKse.50780$wr.10780@clgrps12>
Source record: 74676

> A few months ago, I came upon a book that really looks like it might fill
> the bill: _Engineering Electromagnetics_ by Nathan Ida. The text is clear
> but doesn't skimp on math or theory. At the end of each section, there are
> numerous examples showing how the concept is applied in the solution of
> real problems -- something sorely missing in most other texts and, for
> that matter, in a lot of college courses. For example, after the
> "Inductance and Inductance" section in the "Magnetic Materials and
> Properties" chapter are the following fully worked and explained examples:
>
> Application: Self-inductance of a toroidal coil
> Application: Self-inductance of a long solenoid - Inductance per unit
> length
> Application: Inductance per unit length of coaxial cables
> Application: Mutual inductance between a wire and a toroidal core -
> core memory
> Mutual inductance between straight wire and loop
> Self- and mutual inductances in multiple coils
>
> It's sort of like a Shaum's Outlines and textbook combined, but in a way
> that you can see the transition from the theory to practice. It's also a
> good reference to use later on.
>
> And the answers to all the problems (but no details about how they were
> solved) are at the back of the book.
>
> I was lucky and found a used one at Powell's while browsing in their
> technical bookstore, but even new it's a bargain.
>
> Roy Lewallen, W7EL

Looks interesting. I just ordered it for $79 Canadian from www.amazon.ca

Thanks,

Frank

1411. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 01:58:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11b6vuglidvpo16@corp.supernews.com>
Source record: 74677

Walter Maxwell wrote:
> Good response, Roy, but concerning rho and gamma to represent reflection
> coefficient, I refer you to Reflections, Sec 3.1,
>
> "Prior to the 1950s rho and sigma, and sometimes 'S' were used to represent
> standing wave ratio. The symbol of choice to represent reflection coefficient
> during that era was upper case gamma. However, in 1953 the American Standards
> Association (now the NIST) announced in its publication ASA Y10.9-1953, that rho
> is to replace gamma for reflection coefficient, with SWR to represent standing
> wave ratio (for either voltage or current), and VSWR specifically for voltage
> standing wave ratio. Most of academia responded to the change, but some
> individuals did not. Consequently, gamma is occasionally seen representing
> reflection coefficent, but only rarely."

Most interesting. I have on my library shelf 14 texts which deal
primarily or in a major way with electromagnetic waves and/or
transmission lines, and two with microwave circuit design. Of those,

8 (including both microwave design texts) use Gamma
4 use rho
2 use K
2 use k

If NIST's pronouncement had any effect at all, it was the opposite of
what was intended -- the four texts using rho were copyrighted in 1951,
53, 63, and 65; the 8 using Gamma were copyrighted in 1960 - 2000, 6 of
them after 1965. So it appears from my sampling that Gamma is becoming
more, not less, prevalant.

> Hope this clarifies any misunderstanding concerning the use of gamma for
> reflection coefficient.

I'm afraid it doesn't, unless my collection is very atypical. I don't
think it is, because it includes many of the classics.

> Incidentally, Roy, I recently mailed you a CD containing Laport's book, "Radio
> Antenna Engineering." I'm wondering if you received it, or did it go astray?

I did indeed, Walt, and please forgive me for not acknowledging your
very kind and thoughtful gift more promptly.

Roy Lewallen, W7EL

1412. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 02:00:42 UTC
From: Owen <none@no.where>
Message-ID: <efLse.21025$F7.15481@news-server.bigpond.net.au>
Source record: 74678

Walter Maxwell wrote:

> Good response, Roy, but concerning rho and gamma to represent reflection
> coefficient, I refer you to Reflections, Sec 3.1,
>
> "Prior to the 1950s rho and sigma, and sometimes 'S' were used to represent
> standing wave ratio. The symbol of choice to represent reflection coefficient
> during that era was upper case gamma. However, in 1953 the American Standards
> Association (now the NIST) announced in its publication ASA Y10.9-1953, that rho
> is to replace gamma for reflection coefficient, with SWR to represent standing
> wave ratio (for either voltage or current), and VSWR specifically for voltage
> standing wave ratio. Most of academia responded to the change, but some
> individuals did not. Consequently, gamma is occasionally seen representing
> reflection coefficent, but only rarely."
>

Thanks for the information Walter. I must have a few "rare" texts that
use Gamma (Gamma to mean uppercase gamma) for the voltage reflection
coefficient.

I wonder if the recommendation / standard to which you refer is taken up
in any international standard?

I do note that my ARRL Antenna Handbook (18th edition) and ARRL Handbook
(2000) both use rho, however they reckon that rho=(Za-Zo*)/(Za+Zo)
(where Zo* means the conjugate of Zo). They do this without derivation,
and seem to be in conflict with the derivation in most texts. I suppose
the derivation is buried in some article in QST and in the members only
section of the ARRL website.

Back to notation, accepting that the preferred pronumeral for the
voltage reflection coefficient is rho, is there a pronumeral used for
abs(rho)?

Owen

1413. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 02:44:13 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <4ULse.5547$uS2.3046@fe03.lga>
Source record: 74679

"Owen" <none@no.where> wrote in message
news:efLse.21025$F7.15481@news-server.bigpond.net.au...
> Walter Maxwell wrote:
>
>> Good response, Roy, but concerning rho and gamma to represent reflection
>> coefficient, I refer you to Reflections, Sec 3.1,
>>
>> "Prior to the 1950s rho and sigma, and sometimes 'S' were used to represent
>> standing wave ratio. The symbol of choice to represent reflection coefficient
>> during that era was upper case gamma. However, in 1953 the American Standards
>> Association (now the NIST) announced in its publication ASA Y10.9-1953, that
>> rho is to replace gamma for reflection coefficient, with SWR to represent
>> standing wave ratio (for either voltage or current), and VSWR specifically
>> for voltage standing wave ratio. Most of academia responded to the change,
>> but some individuals did not. Consequently, gamma is occasionally seen
>> representing reflection coefficent, but only rarely."
>>
>
> Thanks for the information Walter. I must have a few "rare" texts that use
> Gamma (Gamma to mean uppercase gamma) for the voltage reflection coefficient.
>
> I wonder if the recommendation / standard to which you refer is taken up in
> any international standard?
>
> I do note that my ARRL Antenna Handbook (18th edition) and ARRL Handbook
> (2000) both use rho, however they reckon that rho=(Za-Zo*)/(Za+Zo) (where Zo*
> means the conjugate of Zo). They do this without derivation, and seem to be in
> conflict with the derivation in most texts. I suppose the derivation is buried
> in some article in QST and in the members only section of the ARRL website.
>
> Back to notation, accepting that the preferred pronumeral for the voltage
> reflection coefficient is rho, is there a pronumeral used for abs(rho)?
>
> Owen

Hi Owen,

From the general use I'm familiar with, rho alone refers to the abs value, while the two vertical bars on each side of rho indicates the magnitude alone. However, following Hewlett-Packard's usage in their AP notes, in Reflections I use a bar over rho for the absolute, and rho alone for the magnitude. However, I explain the term in the book to avoid confusion.

Walt, W2DU

1414. Re: Ham/electronics stores in LA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 02:47:56 UTC
From: tchrme <tchrme@aol.com>
Message-ID: <1119062876.814724.234530@g49g2000cwa.googlegroups.com>
Source record: 74680
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.hf,rec.radio.amateur.boatanchors

Russ,
There is a SCARS (So Cal Antique Radio Society) swap meet starting at 7AM in a parking lot at 1000 Isobel St. in Burbank if you are interested. Take the Burbank Blvd offramp to Victory (bottom of the overpass) . Turn south on Victory, go one block or so to Isobel and turn rt. The parking lot is on the left side. Enjoy, Mike KF6KXG

1415. Re: microwave oven magetron + pringle can antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 02:52:38 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <W%Lse.78711$tt5.50935@edtnps90>
Source record: 74681

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:MjIse.4063$Pa5.1110@newssvr21.news.prodigy.com...
> One consideration is that Magnetrons are NOT designed, normally for ccs
> service-- they are designed for "PULSE" service, even the ovens- (duty
> cycle of MUCH less then even .5) and, pulse transmissions arn't looked
> favorably on many of the microwave bands any more.

Sorry if I am repeating stuff that you may have seen before, but I have
noticed things that do not seem to add up. For example the paper at:
http://www-personal.engin.umich.edu/~mcjz/papers/neculaes_tps04.pdf;
Shows the CW output of the magnetron spectrum as -10 dBm. Since for the
output is monitored via a 30 dB coupler, and a 30 dB attenuator I would have
expected the amplitude to be 0 dBm. It is hard to imagine such testing
being done with a grossly overheated magnetron. Having observed the output
of a microwave oven on a spectrum analyzer, it did appear to be pulsed,
although the spectrum was more characteristic of a frequency hopping (or
swept) signal.

Frank

1416. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 03:40:38 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ruqdnZneDbUyCi7fRVn-pw@comcast.com>
Source record: 74682

"Owen" <none@no.where> wrote in message
news:efLse.21025$F7.15481@news-server.bigpond.net.au...
> ....
> I do note that my ARRL Antenna Handbook (18th edition) and ARRL Handbook
> (2000) both use rho, however they reckon that rho=(Za-Zo*)/(Za+Zo) (where
> Zo* means the conjugate of Zo). They do this without derivation, and seem
> to be in conflict with the derivation in most texts. I suppose the
> derivation is buried in some article in QST and in the members only
> section of the ARRL website.
>

Owen,

There was a big discussion about this last year, and somebody posted that
the ARRL was going to eliminate the conjugate reference.

Tam/WB2TT

> Back to notation, accepting that the preferred pronumeral for the voltage
> reflection coefficient is rho, is there a pronumeral used for abs(rho)?
>
> Owen

1417. Re: Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 04:17:44 UTC
From: Buck <iam@this.site>
Message-ID: <ft77b199n238ghser5jvvf903995u50g5q@4ax.com>
Source record: 74683

On 17 Jun 2005 13:27:28 -0700, nm5k@wt.net wrote:

>Based on our current conversation, It appears that my next antenna
>will be a loop.
>
>Comments are welcome,
>
>Ok...Live a little...Build a yagi for 6m...Will smoke the
>dipoles and loops, etc...I built a 3 el NBS yagi all from
>hard drawn copper tubing. I think it cost about $20 or
>so for the tubing...I built it all one piece using a torch to
>weld the elements to the copper boom. The elements
>are 1/2 inch. The boom , 1 inch I think...
>Actually on 6m, anything is probably ok...But my 706
>does not like big wire antennas. Brings in too much
>HF signals, and trashes the receiver..Using the yagi,
>it's pretty clean. You'd probably see the same thing,
>being you are using the same radio...Mine is a mk2g,
>but 6m is probably the same appx circuit...Myself,
>I don't see a loop really being much better than a
>dipole..There won't be any mistake switching to a
>yagi... :) MK

I wasn't very clear. (actually, not at all clear) on the loop. The
person I was talking to has offered to put up a full sized 80 meter
loop in my yard for HF. I think you are right. i would definitely
like to budget a good pair of filters for the rig. As it stands,
except for 20 and 6, I am tuning an 80 meter dipole for all other
bands.

I do want to create a yagi for 6 meters. I am hoping to get at least
4 elements, but I'll settle for 2 or 3 if necessary.

--
73 for now
Buck
N4PGW

1418. Re: Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 04:23:39 UTC
From: Buck <iam@this.site>
Message-ID: <t387b153vrvi5og726bo4klqsb384ghi45@4ax.com>
Source record: 74684

On 17 Jun 2005 13:27:28 -0700, nm5k@wt.net wrote:

>Based on our current conversation, It appears that my next antenna
>will be a loop.
>
>Comments are welcome,
>
>Ok...Live a little...Build a yagi for 6m...Will smoke the
>dipoles and loops, etc...I built a 3 el NBS yagi all from
>hard drawn copper tubing. I think it cost about $20 or
>so for the tubing...I built it all one piece using a torch to
>weld the elements to the copper boom. The elements
>are 1/2 inch. The boom , 1 inch I think...
>Actually on 6m, anything is probably ok...But my 706
>does not like big wire antennas. Brings in too much
>HF signals, and trashes the receiver..Using the yagi,
>it's pretty clean. You'd probably see the same thing,
>being you are using the same radio...Mine is a mk2g,
>but 6m is probably the same appx circuit...Myself,
>I don't see a loop really being much better than a
>dipole..There won't be any mistake switching to a
>yagi... :) MK

Just for your info, KM4QQ, Ed, the other party I was talking to last night and tonight made six contacts before realizing it was off the back of his Log Periodic. However upon closer examination, he discovered he was actually on his 80 meter loop. We did some experimenting and discovered he gains one s-unit by using the beam pointed at me vs using the 80 meter loop. He will be using the loop to monitor 6 meters and then rotate the beam as needed.

--
73 for now
Buck
N4PGW

1419. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 04:45:25 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1119069925.568378.235380@f14g2000cwb.googlegroups.com>
Source record: 74685

Bill Ogden wrote:
> One ARRL stand (at Dayton) handed out small, black foam balls that are
> intended to be stuck on the end of a whip antenna. Stops corona (maybe --
> let us skip that discussion).
>
> I do not normally have a transmitter in my truck, so I stuck the ball on my
> standard truck radio antenna. (It is a 2003 Ford Ranger.) Since doing this
> I have noticed that the antenna almost always vibrates a little -- even
> after sitting stopped (engine off) in the garage for many minutes. The ball
> on the top moves at least 1/8 inch; it is easily seen if I focus on it.
>
> It appears I have a good resonant antenna to sustain this motion for long
> periods, across an almost 3:1 range (the AM broadcast band) and a bonus VHF
> range (the FM broadcast band). I assume that Hooke's law (if I remembered
> the right name for it) applies instead of the
> break-from-metal-fatigue-or-metal-work-hardening-law will apply such that
> the antenna does not snap off sometime.

The principle behind Hooke's Law is only one element in determining the
resonant frequecies of vibrating bodies. Oops . . yeah, I know, that
could be taken . . ah, never mind. Moving along there is no such thing
as a "work hardening law".

What you have is a simple fully restrained fixed end cantiliver beam
with a point mass on it's far end. Your "system" when excited by random
forces like wind impingement loads vibrates *mechanically* at it's
natural freq and it's harmonics which can cover any number of octaves.

Your "system" won't crap out due to vibration unless the skin stresses
in the rod exceed the specific (published) endurance limit of the
material.

"The rest is left as an exercise for the student to bumble thru."

None of which of course has a friggin' thing to do it's characteristics
as an antenna. Which you already knew. Tnx for the troll, gave me
something delightfully useless to do while I finished off this double
magnum scotch 'n water.

> Perhaps I should patent this
> resonant antenna that is almost frequency independent!

Go for it William, you can't miss, the patent office hangs numbers on
any brainfart which comes down the road these days. At worst you'll be
able to claim that you're an "inventor" of record. Brag points are
where you find 'em.

Ditty dah dit dah.

>
> Bill
> W2WO

w3rv

1420. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 06:29:13 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1119076153.817496.210820@g14g2000cwa.googlegroups.com>
Source record: 74686

You've noted what I've noted before in this forum, if you say that "(V)SWR" is the SWR that would result if the forward and reverse waves at a particular point on the line (the point at which you've measured rho) were allowed to develop a voltage maximum and a voltage minimum (or a current maximum and minimum). I happen to believe that is more in keeping with the original meaning of (V)SWR than the formula which says VSWR=(1+rho)/(1-rho).

Of course, this all gets quickly into people trying to assign physical significance to rho which is not really there; they get confused when rho>1.

If you are clear and consistent with your definitions, I don't see that any problems result either way. I happen to believe that the formula you came up with is a better one than the one you commonly see in texts, but I also agree with Roy that you'd better be clear about it if you use it, because it goes against the commonly accepted grain. On the other hand, I've seen texts that derive it in the same way you have, which come up with the "wrong" answer (without the abs) based on their initial premises.

Cheers,
Tom

1421. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 06:56:52 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-3EA56D.23565217062005@morgoth.sfu.ca>
Source record: 74687

In article <jdJse.20746$F7.3677@news-server.bigpond.net.au>,
Owen <none@no.where> wrote:

> Indeed. It occurs to me that if one was to try to measure VSWR (say
> using a slotted line with probe) on a lossy line operating at high VSWR,
> the best estimate would come from finding a minimum, measuring it and
> the adjacent maxima and calculating VSWR=(Vmax1+Vmax2)/Vmin/2 so that
> the measurement is biassed towards the notional VSWR at the point of the
> minimum (the minimum being much more sensitive to line attenuation than
> the maxima).

If you think about exponential decay along the line, the geometric mean
sqrt(Vmax1 * Vmax2) would be an even better replacement for Vmax, to use
in the numerator, than the arithmetic mean (Vmax1 * Vmax2)/2.

David, ex-W8EZE

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

1422. appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 11:13:38 UTC
From: khanna <gauravjain000@gmail.com>
Message-ID: <1119093218.770037.305530@g43g2000cwa.googlegroups.com>
Source record: 74688

hi,
I am designing a yagi antenna at 2.4 ghz .I am in this antenna business for just past 2 months.I am constantly looking for an appropiate balun design.
Could anybody help me in finding these question-

Which design will suit for my purpose ?(ferrite core/ferrite rod or any other thing?
As per my information 1:1 current balun may suit .Am I right ? If yes then any other specification about it ?
where can I find complete DESIGN DETAIL about this perticular balun (this is a bigger problem for me).

I want to request all antenna studs ,please help me. I have just 10 days to finish this project.

Regards,
Gaurav jain

1423. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 11:28:05 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11b819cbjrj5p6a@corp.supernews.com>
Source record: 74689

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:7026b1tublvoq7ebaluv6ltpviiffuah1m@4ax.com...
> On Fri, 17 Jun 2005 12:36:14 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
> Hi Fred,
>
> I've seen you use this platitude more than once. As much truth as it
> may offer, it necessarily presumes there is someone energetically
> putting fly crap into the pepper.
>
> I won't tarry to imagine how that is done, however.

I believe we can assume that the flies are taking care of that.(G)

Harold
KD5SAK

1424. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 11:55:38 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <kvydnXB1LrgSkSnfRVn-uw@comcast.com>
Source record: 74690

kashe@sonic.net wrote:
> On Tue, 14 Jun 2005 17:35:21 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>U.S. patent 6,025,810: "Hyper-Light-Speed Antenna", issued Feb. 15, 2000:
>>
>>"The present invention has discovered the apparent existence of a new
>>dimension capable of acting as a medium for [RF] signals. Initial
>>benefits of penetrating this new dimension include sending RF signals
>>faster than the speed of light, extending the effective distance of RF
>>transmitters at the same power radiated, penetrating known RF shielding
>>devices, and accelerating plant growth exposed to the by-product energy
>>of the RF transmissions."
>>
>>Snif. Kinda makes you all weepy and proud, doesn't it? Is this a great
>>country, or what. Hope y'all got your flags out and wavin'.
>>
>>It's all there, at http://uspto.gov.
>

Gee! I wonder if that means I can hear my EME echo before I transmit
the initial signal ?

Roy, has someone invented perpetual motion here ?

1425. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 12:04:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b40ede$1_2@spool9-west.superfeed.net>
Source record: 74691

Tam/WB2TT wrote:
> There was a big discussion about this last year, and somebody posted that
> the ARRL was going to eliminate the conjugate reference.

Another problem that needs to be fixed is the difference between
the "virtual" rho and the physical rho. What is rho looking
into point '+' from the XMTR side?

XMTR---50 ohm coax---+---1/4WL 75 ohm coax---112.5 ohm load

The physical rho is (75-50)/(75+50) = 0.2 which is the same
as 's11' in an S-parameter analysis.

The "virtual" rho is SQRT(Pref/Pfor) which, in a Z0-matched
system is zero. (The 50 ohm coax "sees" a V/I ratio of 50 ohms)

Rho, looking into the load, is (112.5-75)/(112.5+75) = 0.2.

The virtual rho, looking back at point '+' from the load side
is |1.0| but that same reflection coefficient, s22 for an
S-parameter analysis, is (50-75)/(50+75) = -0.2.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1426. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 12:08:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b40fb5$1_2@spool9-west.superfeed.net>
Source record: 74692

Frank wrote:
> Looks interesting. I just ordered it for $79 Canadian from www.amazon.ca

Let us know if it says anything about "sloshing" EM wave energy
including reflected light waves in free space.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1427. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 13:25:44 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <kp78b1tjmfv5jk95ke91gvc4eicotb1e7f@4ax.com>
Source record: 74693

On Fri, 17 Jun 2005 22:44:13 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

[snip]

>
>Hi Owen,
>
>From the general use I'm familiar with, rho alone refers to the abs value, while
>the two vertical bars on each side of rho indicates the magnitude alone.
>However, following Hewlett-Packard's usage in their AP notes, in Reflections I
>use a bar over rho for the absolute, and rho alone for the magnitude. However, I
>explain the term in the book to avoid confusion.

Confusion reigns.

Four years ago in another thread I posted thus:

Quote

On Mon, 12 Feb 2001 15:25:28 -0800, Roy Lewallen <w...@eznec.com>
wrote:

>Just a point of clarification. Rho in these equations is the magnitude
>of the reflection coefficient, not the reflection coefficient itself.
>The reflection coefficient is actually a complex number. Rho is
>unfortunately used to sometimes represent the (complex) reflection
>coefficient and sometimes (like here) its magnitude, although some
>people (me included) prefer to use uppercase gamma for the complex
>reflection coefficient and lowercase rho for its magnitude.

Roy raises a good point. Tom Bruhns already took me to task for a
somewhat careless use of rho. Although I did define it below, as Roy
and Tom said, it is often used as a complex number.

I too prefer upper case Gamma for the complex number and rho for the
magnitude but unfortunately the literature is full of confusing usage.
Some of the literature was even published by Tom's employer, the
former H-P, now Agilent (how do you pronounce that again?)

My autographed copy of Steve Adam's, book "Microwave Theory and
Applications", published by H-P, shows on page 23:

" |Gamma| = rho "

Similarly, my handy dandy H-P "Reflectometer calculator" sliderule
says that SWR = (1 + rho) / (1- rho) which bears a striking
resemblence to what I wrote below.

But then in H-P's App Note 77-3, "Measurement of Complex Impedance 1-1000 MHZ", it says that rho is a vector quantity and it shows:

SWR = (1 +|rho|) / (1 - |rho|)

Finally, the best reference I have is General Radio's "Handbook of Microwave Measurements" (out of print but reissued by Gilbert Engineering) and it says that Gamma is complex and rho isn't.

End quote.

1428. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 14:00:00 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com>
Source record: 74694

On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
wrote:

>hi,
>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>for just past 2 months.I am constantly looking for an appropiate balun
>design.
>Could anybody help me in finding these question-
>
>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>any other thing?

At this frequency I would not consider ferrites.

>As per my information 1:1 current balun may suit .Am I right ? If yes
>then any other specification about it ?
>where can I find complete DESIGN DETAIL about this perticular balun
>(this is a bigger problem for me).
>
>I want to request all antenna studs ,please help me. I have just 10
>days to finish this project.

The slotted coax balun would be an option. I don't have a ready
reference, but you might look for the NBS standard gain antenna, as it
uses such a balun.

Also here is another possibility:

http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf

1429. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 14:08:46 UTC
From: Dave <noone@nowhere.com>
Message-ID: <8MCdnbVVs5ZktynfRVn-vw@crocker.com>
Source record: 74695

you could use a gamma match that requires no balun. or you could use a T match with a 1/2 wave phasing line that acts as the balun.

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message news:kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com...
> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
> wrote:
>
>>hi,
>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>>for just past 2 months.I am constantly looking for an appropiate balun
>>design.
>>Could anybody help me in finding these question-
>>
>>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>>any other thing?
>
> At this frequency I would not consider ferrites.
>
>>As per my information 1:1 current balun may suit .Am I right ? If yes
>>then any other specification about it ?
>>where can I find complete DESIGN DETAIL about this perticular balun
>>(this is a bigger problem for me).
>>
>>I want to request all antenna studs ,please help me. I have just 10
>>days to finish this project.
>
> The slotted coax balun would be an option. I don't have a ready
> reference, but you might look for the NBS standard gain antenna, as it
> uses such a balun.
>
> Also here is another possibility:
>
> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>

1430. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 15:26:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kpd8b1ho7g48couo5nacrhuj73cpmeieau@4ax.com>
Source record: 74696

On Sat, 18 Jun 2005 06:28:05 -0500, "Harold Burton"
<hwburton@cableone.net> wrote:
>I believe we can assume that the flies are taking care of that.(G)

Hi Harold,

Then it takes a breed of fly-herder to round them up, and -um- milk
them, so to speak. Otherwise this thread would have long ago died
without that fertilizing contribution.

There must be a market for a high priced, exotic specie of pepper
being sold - what a difference labeling can make. I remember one of
my sales buddies pointing out how Jack-in-the-box could have emerged
faster from their health fiasco a dozen years back:
"We cook the shit out of our burgers."

It seems I've seen a similar appeal being made here.

The industry (the people who serve only to sell you what "you want")
must think we don't have enough feces in our diet. They've asked the
government for approval to Nuke food to kill germs. The upshot is
they would keep things less clean and you might have to pick your
teeth more.

These things are just little things. Industry would make similar
arguments of scale. Think about it the next time a bite into a burger
hits bone.

73's
Richard Clark, KB7QHC

1431. Re: Antenna @ speed of light...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 15:31:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <paf8b1lfihfrhl2easfnhet0lp8bg29aq0@4ax.com>
Source record: 74697

On Sat, 18 Jun 2005 07:55:38 -0400, Ham op <hamop@comcast.net> wrote:
>Gee! I wonder if that means I can hear my EME echo before I transmit
>the initial signal ?

>Roy, has someone invented perpetual motion here ?

Hi OM,

The answer to your observation can be found in the archive. This
proves the concept!

73's
Richard Clark, KB7QHC

1432. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 16:09:41 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com>
Source record: 74698

On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:

>you could use a gamma match that requires no balun. or you could use a T
>match with a 1/2 wave phasing line that acts as the balun.

Hmmm. Since the dipole is going to be about 1.4 inches long, how do
you propose to do this?

>
>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>news:kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com...
>> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
>> wrote:
>>
>>>hi,
>>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>>>for just past 2 months.I am constantly looking for an appropiate balun
>>>design.
>>>Could anybody help me in finding these question-
>>>
>>>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>>>any other thing?
>>
>> At this frequency I would not consider ferrites.
>>
>>>As per my information 1:1 current balun may suit .Am I right ? If yes
>>>then any other specification about it ?
>>>where can I find complete DESIGN DETAIL about this perticular balun
>>>(this is a bigger problem for me).
>>>
>>>I want to request all antenna studs ,please help me. I have just 10
>>>days to finish this project.
>>
>> The slotted coax balun would be an option. I don't have a ready
>> reference, but you might look for the NBS standard gain antenna, as it
>> uses such a balun.
>>
>> Also here is another possibility:
>>
>> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>>
>

1433. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 16:19:50 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <p6i8b1hs6g90pv8kiki9fpnj8eonbsk8aa@4ax.com>
Source record: 74699

On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
wrote:

>hi,
>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>for just past 2 months.I am constantly looking for an appropiate balun
>design.
>Could anybody help me in finding these question-
>
>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>any other thing?
>As per my information 1:1 current balun may suit .Am I right ? If yes
>then any other specification about it ?
>where can I find complete DESIGN DETAIL about this perticular balun
>(this is a bigger problem for me).
>
>I want to request all antenna studs ,please help me. I have just 10
>days to finish this project.

You might also consider a loop Yagi.

http://cheatthezone.tripod.com/wireless/loopyagi.html

Google for others.

The loop has a "built-in" balun.

1434. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 16:32:38 UTC
From: Dave <noone@nowhere.com>
Message-ID: <NJudnTplk7ws0SnfRVn-hA@crocker.com>
Source record: 74700

i would assume that since you are working with microwaves you have micro
tools appropriate for the job.

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>you could use a gamma match that requires no balun. or you could use a T
>>match with a 1/2 wave phasing line that acts as the balun.
>
> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
> you propose to do this?
>
>
>>
>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>>news:kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com...
>>> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
>>> wrote:
>>>
>>>>hi,
>>>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>>>>for just past 2 months.I am constantly looking for an appropiate balun
>>>>design.
>>>>Could anybody help me in finding these question-
>>>>
>>>>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>>>>any other thing?
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>>> At this frequency I would not consider ferrites.
>>>
>>>>As per my information 1:1 current balun may suit .Am I right ? If yes
>>>>then any other specification about it ?
>>>>where can I find complete DESIGN DETAIL about this perticular balun
>>>>(this is a bigger problem for me).
>>>>
>>>>I want to request all antenna studs ,please help me. I have just 10
>>>>days to finish this project.
>>>
>>> The slotted coax balun would be an option. I don't have a ready
>>> reference, but you might look for the NBS standard gain antenna, as it
>>> uses such a balun.
>>>
>>> Also here is another possibility:

>>>
>>> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>>>
>>
>

1435. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 17:54:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ddZse.146$nw5.9227358@news.sisna.com>
Source record: 74701

Richard:

Anyone got a "pepper substitute", I seem to have lost my taste for the
stuff... <frown>

Regards,
John

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:kpd8b1ho7g48couo5nacrhuj73cpmeieau@4ax.com...
> On Sat, 18 Jun 2005 06:28:05 -0500, "Harold Burton"
> <hwburton@cableone.net> wrote:
>>I believe we can assume that the flies are taking care of that.(G)
>
> Hi Harold,
>
> Then it takes a breed of fly-herder to round them up, and -um- milk
> them, so to speak. Otherwise this thread would have long ago died
> without that fertilizing contribution.
>
> There must be a market for a high priced, exotic specie of pepper
> being sold - what a difference labeling can make. I remember one of
> my sales buddies pointing out how Jack-in-the-box could have emerged
> faster from their health fiasco a dozen years back:
> "We cook the shit out of our burgers."
>
> It seems I've seen a similar appeal being made here.
>
> The industry (the people who serve only to sell you what "you want")
> must think we don't have enough feces in our diet. They've asked the
> government for approval to Nuke food to kill germs. The upshot is
> they would keep things less clean and you might have to pick your
> teeth more.
>
> These things are just little things. Industry would make similar
> arguments of scale. Think about it the next time a bite into a burger
> hits bone.
>
> 73's
> Richard Clark, KB7QHC

1436. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 17:57:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JgZse.149$bj6.9311292@news.sisna.com>
Source record: 74702

Wes:

How about a "conductive pen", one whos ink contains micro-fine silver particles, just draw the darn thing on an non-conductive surface and hook up the feedline!!!

Warmest regards,
John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>you could use a gamma match that requires no balun. or you could use
>>a T
>>match with a 1/2 wave phasing line that acts as the balun.
>
> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
> you propose to do this?
>
>
>>
>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>>news:kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com...
>>> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
>>> wrote:
>>>
>>>>hi,
>>>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna
>>>>business
>>>>for just past 2 months.I am constantly looking for an appropiate
>>>>balun
>>>>design.
>>>>Could anybody help me in finding these question-
>>>>
>>>>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>>>>any other thing?
>>>
>>> At this frequency I would not consider ferrites.
>>>
>>>>As per my information 1:1 current balun may suit .Am I right ? If
>>>>yes
>>>>then any other specification about it ?
>>>>where can I find complete DESIGN DETAIL about this perticular balun
>>>>(this is a bigger problem for me).

>>>>
>>>>I want to request all antenna studs ,please help me. I have just 10
>>>>days to finish this project.
>>>
>>> The slotted coax balun would be an option. I don't have a ready
>>> reference, but you might look for the NBS standard gain antenna, as
>>> it
>>> uses such a balun.
>>>
>>> Also here is another possibility:
>>>
>>> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>>>
>>
>

1437. Re: Ham/electronics stores in LA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 18:19:40 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <cso8b1tfgrsbm8suk4ofhrp0ncj6karak0@4ax.com>
Source record: 74703

On Fri, 17 Jun 2005 20:32:17 GMT, "patgkz" <patgkz@new.rr.com> wrote:

>TRW swap meet still around?
>
>
>
>"Shadow998" <HRD998cc@yahoo.coom> wrote in message
>news:m7Dse.3600$Pa5.2667@newssvr21.news.prodigy.com...
>>
>> I will be in Ontario and Los Angeles, CA area this weekend and will have a
>> lot of free time. Are there any good electronics/Ham stores in that you
>> would recommend? Electronic Surplus stores that have radio gear/parts are
>> a
>> plus as well.
>>
>> I have an internet connection at my hotel, so any responses anytime this
>> weekend will be read.
>>
>> Thanks!
>>
>> Russ W6OHM
>>
>>
>
The TRW [now Northrop-Grumman Space Technology] is stil around - on
the last Saturday of each month so this will not work for Russ on this
weekend. There are Ham Radio Outlet stores in Burbank and in Anaheim
and Jun's Electronics in Culver City. I only know of one electronic
surplus outlet, ALL Electronics which I recall being in Burbank - been
there once and it wasn't worth a return trip for me, nothing I
couldn't get elsewhere or via online ordering.

I suggest you may have more fun by spending part of the afternoon in
Venice (in between LAX and Santa Monica) and take a walk along the
'boardwalk' (improperly named as it is concrete) and enjoy the
outrageous people. You'll find all sorts of colroful folks hawking
anything from sunglasses to magic beans, perhaps see the chainsaw
juggler and see body art that could make you cringe. It is an
interesting study in sociology and you can enjoy today's clear skies,
warm temperatures, ocean air and thong-clad SoCal beauties.

Howard

1438. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 18:20:55 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <d91omudlh1@ctb-nnrp2.saix.net>
Source record: 74704

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>you could use a gamma match that requires no balun. or you could use a T
>>match with a 1/2 wave phasing line that acts as the balun.
>
> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
> you propose to do this?
>
>
Etch it on pc board. Come to think of it - at that wavelenth - simply etch
the entire antenna on a board.

73
Roger ZR3RC

>>
>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>>news:kk98b1li125dalmt40usn5rmuolntg37te@4ax.com...
>>> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
>>> wrote:
>>>
>>>>hi,
>>>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>>>>for just past 2 months.I am constantly looking for an appropiate balun
>>>>design.
>>>>Could anybody help me in finding these question-
>>>>
>>>>Which design will suit for my purpose ?(ferrite core/ferrite rod or
>>>>any other thing?
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>>> At this frequency I would not consider ferrites.
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>>>>then any other specification about it ?
>>>>where can I find complete DESIGN DETAIL about this perticular balun
>>>>(this is a bigger problem for me).
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>>>>I want to request all antenna studs ,please help me. I have just 10
>>>>days to finish this project.
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>>> The slotted coax balun would be an option. I don't have a ready
>>> reference, but you might look for the NBS standard gain antenna, as it
>>> uses such a balun.

>>>
>>> Also here is another possibility:
>>>
>>> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>>>
>>
>

1439. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 18:29:15 UTC
From: Dave <noone@nowhere.com>
Message-ID: <g5qdnWclH4Kb9SnfRVn-2g@crocker.com>
Source record: 74705

thats one way, or just etch it from circuit board.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:JgZse.149$bj6.9311292@news.sisna.com...
> Wes:
>
> How about a "conductive pen", one whos ink contains micro-fine silver
> particles, just draw the darn thing on an non-conductive surface and hook
> up the feedline!!!
>
> Warmest regards,
> John
>
> "Wes Stewart" <n7ws_@*yahoo.com> wrote in message
> news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
>> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>>
>>>you could use a gamma match that requires no balun. or you could use a T
>>>match with a 1/2 wave phasing line that acts as the balun.
>>
>> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
>> you propose to do this?
>>
>>
>>>
>>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>>>news:kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com...
>>>> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
>>>> wrote:
>>>>
>>>>>hi,
>>>>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna business
>>>>>for just past 2 months.I am constantly looking for an appropiate balun
>>>>>design.
>>>>>Could anybody help me in finding these question-
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>>>>>Which design will suit for my purpose ?(ferrite core/ferrite rod or
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>>>>
>>>>>As per my information 1:1 current balun may suit .Am I right ? If yes
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>>>>>where can I find complete DESIGN DETAIL about this perticular balun

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>>>>>
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>>>> uses such a balun.
>>>>
>>>> Also here is another possibility:
>>>>
>>>> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>>>>
>>>
>>
>
>

1440. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 18:45:52 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <CZZse.1367$xm1.511@fe06.lga>
Source record: 74706

"Bill Ogden" <wogden@attglobal.net> wrote in message
news:xvDse.32$ik5.1@fe12.lga...
> One ARRL stand (at Dayton) handed out small, black foam balls that are
> intended to be stuck on the end of a whip antenna. Stops corona (maybe --
> let us skip that discussion).
>
> I do not normally have a transmitter in my truck, so I stuck the ball on my
> standard truck radio antenna. (It is a 2003 Ford Ranger.) Since doing this
> I have noticed that the antenna almost always vibrates a little -- even
> after sitting stopped (engine off) in the garage for many minutes. The ball
> on the top moves at least 1/8 inch; it is easily seen if I focus on it.
>
> It appears I have a good resonant antenna to sustain this motion for long
> periods, across an almost 3:1 range (the AM broadcast band) and a bonus VHF
> range (the FM broadcast band). I assume that Hooke's law (if I remembered
> the right name for it) applies instead of the
> break-from-metal-fatigue-or-metal-work-hardening-law will apply such that
> the antenna does not snap off sometime. Perhaps I should patent this
> resonant antenna that is almost frequency independent!
>
> Bill
> W2WO
>
Isn't 'frequency independent' and 'resonant' appearing in the same sentence an oxymoron? Just like 'sanitary sewer'? One thing's for sure, just being an oxymoron won't stop the patent office from granting a patent. Go for it! The examiners at the patent office won't even know whether the antenna is resonant mechanically or electrically.

Walt, W2DU

1441. Attic antenna: precautions for nearby AC wiring?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 18:51:29 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndb8r9h.2e6r.ben@saturn.home.ben.com>
Source record: 74707

With an attic dipole installation is it worth putting snap-on ferrites
on AC wiring or other low voltage (phone, network) cabling that's nearby?

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

1442. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 18:56:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d91qp3jp1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74708

> > >> Did Maxwell ever mention the scientific concept of "sloshing"?
> > >
> No. The electron had not yet been discovered.
>
==========

Electrons sloshing about in conductors, in the same general direction, always attempt to avoid each other.

This unsociable characteristic results in a pressure which drives them to flow near to the surface of conductors in which they are sloshing.

Hence skin and proximity effects.

There is an opposite effect. When electrons slosh about in opposite general directions they form a great liking for each other.

The result is a mechanical attractive force between a pair of parallel conductors carrying current in opposite directions. Also another proximity effect.

It's all so simple. Can't imagine why you have sloshing problems. But no doubt Cecil will introduce reflections, standing waves on meters which don't measure them, and SHF scattering parameters. ;o)

Reg, G4FGQ

1443. Re: Ham/electronics stores in LA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 20:04:05 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <V6%se.31474$gL4.508@trnddc07>
Source record: 74709
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.hf,rec.radio.amateur.boatanchors

Two places to try are:

Orvac Electronics
(714) 871-1020
(714) 871-1951
1645 E Orangethorpe Ave
Fullerton, CA 92831

Marvac Electronics
2001 Harbor Blvd
Costa Mesa, CA 92627
Phone 949-650-2001

"Shadow998" <HRD998cc@yahoo.coom> wrote in message
news:m7Dse.3600$Pa5.2667@newssvr21.news.prodigy.com...
>
> I will be in Ontario and Los Angeles, CA area this weekend and will have a
> lot of free time. Are there any good electronics/Ham stores in that you
> would recommend? Electronic Surplus stores that have radio gear/parts are
> a
> plus as well.
>
> I have an internet connection at my hotel, so any responses anytime this
> weekend will be read.
>
> Thanks!
>
> Russ W6OHM
>
>

1444. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 20:13:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b4814c$1_1@spool9-west.superfeed.net>
Source record: 74711

Reg Edwards wrote:
> But
> no doubt Cecil will introduce reflections, standing waves on meters
> which don't measure them, and SHF scattering parameters. ;o)

How about I just introduce photons? EM waves are photonic energy
whether they are traveling in free space or in a transmission
line. How do the photons slosh around? The electrons that slosh
around are the carriers of the EM wave and are not the EM wave.

Who has published a scientific paper on photon sloshing?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1445. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 20:13:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b4815c$1_1@spool9-west.superfeed.net>
Source record: 74710

Reg Edwards wrote:
> But
> no doubt Cecil will introduce reflections, standing waves on meters
> which don't measure them, and SHF scattering parameters. ;o)

How about I just introduce photons? EM waves are photonic energy
whether they are traveling in free space or in a transmission
line. How do the photons slosh around? The electrons that slosh
around are the carriers of the EM wave and are not the EM wave.

Who has published a scientific paper on photon sloshing?
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73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1446. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 20:26:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ds%se.155$vf1.11206795@news.sisna.com>
Source record: 74716

... copper foil tape and a small soldering iron?

John

"Roger Conroy" <rogerconroy@nospam.hotmail.com> wrote in message
news:d91omudlh1@ctb-nnrp2.saix.net...
>
> "Wes Stewart" <n7ws_@*yahoo.com> wrote in message
> news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
>> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>>
>>>you could use a gamma match that requires no balun. or you could use
>>>a T
>>>match with a 1/2 wave phasing line that acts as the balun.
>>
>> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
>> you propose to do this?
>>
>>
> Etch it on pc board. Come to think of it - at that wavelenth - simply
> etch the entire antenna on a board.
>
> 73
> Roger ZR3RC
>
>>>
>>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>>>news:kk98b1lil25dalmt40usn5rmuolntg37te@4ax.com...
>>>> On 18 Jun 2005 04:13:38 -0700, "khanna" <gauravjain000@gmail.com>
>>>> wrote:
>>>>
>>>>hi,
>>>>I am designing a yagi antenna at 2.4 ghz .I am in this antenna
>>>>business
>>>>for just past 2 months.I am constantly looking for an appropiate
>>>>balun
>>>>design.
>>>>Could anybody help me in finding these question-
>>>>
>>>>Which design will suit for my purpose ?(ferrite core/ferrite rod
>>>>or
>>>>any other thing?
>>>>
>>>> At this frequency I would not consider ferrites.
>>>>

>>>>>As per my information 1:1 current balun may suit .Am I right ? If
>>>>>yes
>>>>>then any other specification about it ?
>>>>>where can I find complete DESIGN DETAIL about this perticular balun
>>>>>(this is a bigger problem for me).
>>>>>
>>>>>I want to request all antenna studs ,please help me. I have just 10
>>>>>days to finish this project.
>>>>
>>>> The slotted coax balun would be an option. I don't have a ready
>>>> reference, but you might look for the NBS standard gain antenna, as
>>>> it
>>>> uses such a balun.
>>>>
>>>> Also here is another possibility:
>>>>
>>>> http://www.atnf.csiro.au/projects/ska/techdocs/SlottedCoaxBalun.pdf
>>>>
>>>
>>
>
>

1447. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 20:41:03 UTC
From: richardharrison@webtv.net
Message-ID: <18548-42B486DF-562@storefull-3256.bay.webtv.net>
Source record: 74713

Cecil, W5DXP wrote:
"If so, where does the inductance and capacitance in free space come from to generate that 377 ohms of characteristic impedance?"

First, impedance is a voltage to current ratio as in Ohm`s law. It can be complex if reactance and resistance are involved, but it`s still a voltage to current ratio. Antennas radiate power which has the units of watts, and from the expanding radiation wavefront in free space, this amounts to watts per square meter.

A wire one meter long placed for maximum excitation when swept by the passing wave will have a voltage induced across it equal to the wave`s signal strength in volts per meter.

There are no volts or amps in the wave, only the ability to generate volts and amps in conductors.

The 377 phms of characteristic impedance is the ratio of the electric field strength to the magnetic field strength in the wave. Its purpose is to get the units right. The ratio of energy in the electric and magnetic components of the wave is really one to one. It is really the same energy swapped back and forth between the electric field and magnetic field which physically are at a right angle and both are at right angles to the direction of travel.

Kraus has done the math for us on page 170 of the 3rd edition of "Antennas". His answer is 376.7 ohms, a pure resistance. This is the far field in free space.

Best regards, Richard Harrison, KB5WZI

1448. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 20:55:35 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <7629b114ar6vd72sevb9gd9msa23ecke7v@4ax.com>
Source record: 74712

On Sat, 18 Jun 2005 16:32:38 -0000, "Dave" <noone@nowhere.com> wrote:

>i would assume that since you are working with microwaves you have micro
>tools appropriate for the job.

The slotted coax balun that I suggested is a viable possibility.

The half-wave balun that you proposed (I suspect before you actually
noted the frequency) is not. The application cries out for semi-rigid
coax and bending that half-wave balun without exceeding the bend
radius limitation is an issue. Similar problems lurk with a gamma
match which is lousy at vhf and would be a really bad idea at 2.4 GHz.

>
>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
>> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>>
>>>you could use a gamma match that requires no balun. or you could use a T
>>>match with a 1/2 wave phasing line that acts as the balun.
>>
>> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
>> you propose to do this?
>>

1449. Re: appropiate blun design for yagi at 2.4 ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 21:05:16 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ck29b19oef54rs4b15egiuop3e8ovi1lpg@4ax.com>
Source record: 74714

On Sat, 18 Jun 2005 20:20:55 +0200, "Roger Conroy"
<rogerconroy@nospam.hotmail.com> wrote:

>
>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>news:0lh8b19lnf6rsv38jf0bpt38oi3dvi7qoe@4ax.com...
>> On Sat, 18 Jun 2005 14:08:46 -0000, "Dave" <noone@nowhere.com> wrote:
>>
>>>you could use a gamma match that requires no balun. or you could use a T
>>>match with a 1/2 wave phasing line that acts as the balun.
>>
>> Hmmm. Since the dipole is going to be about 1.4 inches long, how do
>> you propose to do this?
>>
>>
>Etch it on pc board. Come to think of it - at that wavelenth - simply etch
>the entire antenna on a board.

IMHO, designing and building a Yagi at 2.4 GHz is a bad idea from the
beginning but I assume the OP has an assigned project and he's stuck
with it. If not, he should be building a horn.

Designing one on microstrip is an even bigger can of worms. (An
American idiom similar to Pandora's Box)

1450. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 21:20:34 UTC
From: radio913@aol.com
Message-ID: <1119129634.095414.164970@z14g2000cwz.googlegroups.com>
Source record: 74715

Tam/WB2TT wrote:
> "Owen" <none@no.where> wrote in message
> news:efLse.21025$F7.15481@news-server.bigpond.net.au...
> > ....
> > I do note that my ARRL Antenna Handbook (18th edition) and ARRL Handbook
> > (2000) both use rho, however they reckon that rho=(Za-Zo*)/(Za+Zo) (where
> > Zo* means the conjugate of Zo). They do this without derivation, and seem
> > to be in conflict with the derivation in most texts. I suppose the
> > derivation is buried in some article in QST and in the members only
> > section of the ARRL website.
> >
>
> Owen,
>
> There was a big discussion about this last year, and somebody posted that
> the ARRL was going to eliminate the conjugate reference.
>

Les Besser agrees with the ARRL Handbook except he
uses gamma for the complex reflection coefficient:

gamma=(Za-Zo*)/(Za+Zo) (where Zo* means the conjugate of Zo)

But for most practical calculations, the Zo is assumed to
be purely real, so many texts give gamma=(Za-Zo)/(Za-Zo).

rho=[gamma]=absolute value of gamma=magnitude of gamma

Rho can never be greater than one going into a passive
network. Only when you have an active device, or gain, can
you move outside of the unity circle on the Smith Chart.

Slick

> Tam/WB2TT
>
> > Back to notation, accepting that the preferred pronumeral for the voltage
> > reflection coefficient is rho, is there a pronumeral used for abs(rho)?
> >
> > Owen

1451. Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 23:50:13 UTC
From: Owen <none@no.where>
Message-ID: <Vq2te.22072$F7.18293@news-server.bigpond.net.au>
Source record: 74717

I have been working on the BPL Interference issue.

One of my projects has been exploring ways by which ordinary (well, competent anyway,) amateurs can make reasonably reliable measurements of noise / interference using existing amateur station equipment or equipment that is easy for amateurs to construct.

This has led me to search for a portable antenna of reasonably predictable gain that can be used with a known HF SSB receiver.

I have had a hack at predicting the gain and antenna factor of a small square untuned loop driving a 50 ohm load. The model is in a Mathcad worksheet, but I have copied it to a gif file which you can view on my website at http://www.vk1od.net/bpl/loop.mcd.gif . (The worksheet is entirely in metric units.)

I would appreciate any comments / review on the model and calcs.

Owen

1452. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 23:54:36 UTC
From: Owen <none@no.where>
Message-ID: <0v2te.22076$F7.15607@news-server.bigpond.net.au>
Source record: 74718

Owen wrote:

I hate replying to my own posts... but...

I should have reminded you that if you are having trouble viewing the fig file because it has been zoomed to fit in the browser window, most modern browsers allow you to zoom it up to 100% size.

In Windows Exploder, hold your cursor over the image until a little "Expand" control appears, click the "Expand" control and there you go.

In Firefox, just click on the image.

Owen

1453. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-18 23:56:22 UTC
From: Owen <none@no.where>
Message-ID: <Gw2te.22080$F7.1435@news-server.bigpond.net.au>
Source record: 74719

Owen wrote:

I hate replying to my own posts... but...

I should have reminded you that if you are having trouble viewing the gif file because it has been zoomed to fit in the browser window, most modern browsers allow you to zoom it up to 100% size.

In Windows Exploder, hold your cursor over the image until a little "Expand" control appears, click the "Expand" control and there you go.

In Firefox, just click on the image.

Owen

1454. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 00:22:33 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <bvd9b1lsu158lp7n9fvort8hpg6528enba@4ax.com>
Source record: 74720

On 18 Jun 2005 14:20:34 -0700, radio913@aol.com wrote:

[snip]
>
>Rho can never be greater than one going into a passive
>network. Only when you have an active device, or gain, can
>you move outside of the unity circle on the Smith Chart.

You better raise your deflection shield.

Go ahead Tom, you have the honor.

1455. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 00:47:33 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e5037$42b4c0ab$97d55d24$8176@ALLTEL.NET>
Source record: 74721

Makes things easy, gamma always equal to 1

<radio913@aol.com> wrote in message
news:1119129634.095414.164970@z14g2000cwz.googlegroups.com...
-
> But for most practical calculations, the Zo is assumed to
> be purely real, so many texts give gamma=(Za-Zo)/(Za-Zo).

1456. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 01:09:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d92gkk$ep4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74722

Doesn't the receiver input impedance come into it somewhere? Where is
it?

Reg.

==========

"Owen" <none@no.where> wrote in message
news:Vq2te.22072$F7.18293@news-server.bigpond.net.au...
>
> I have been working on the BPL Interference issue.
>
> One of my projects has been exploring ways by which ordinary (well,
> competent anyway,) amateurs can make reasonably reliable
measurements of
> noise / interference using existing amateur station equipment or
> equipment that is easy for amateurs to construct.
>
> This has led me to search for a portable antenna of reasonably
> predictable gain that can be used with a known HF SSB receiver.
>
> I have had a hack at predicting the gain and antenna factor of a
small
> square untuned loop driving a 50 ohm load. The model is in a Mathcad
> worksheet, but I have copied it to a gif file which you can view on
my
> website at http://www.vk1od.net/bpl/loop.mcd.gif . (The worksheet is
> entirely in metric units.)
>
> I would appreciate any comments / review on the model and calcs.
>
> Owen

1457. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 01:22:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d92hdahco1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74723

> Doesn't the receiver input impedance come into it somewhere? Where
is
> it?
> ----
> Reg.
>
> ==========

Sorry! Looked through it again and found load impedance = 50 ohms.

Reg.

1458. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 01:41:47 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <T34te.1604$gt5.957@fed1read02>
Source record: 74724

"Owen" <none@no.where> wrote in message
news:Vq2te.22072$F7.18293@news-server.bigpond.net.au...
>
> I have been working on the BPL Interference issue.
>
> One of my projects has been exploring ways by which ordinary (well,
> competent anyway,) amateurs can make reasonably reliable measurements of
> noise / interference using existing amateur station equipment or equipment
> that is easy for amateurs to construct.
>
> This has led me to search for a portable antenna of reasonably predictable
> gain that can be used with a known HF SSB receiver.
>
> I have had a hack at predicting the gain and antenna factor of a small
> square untuned loop driving a 50 ohm load. The model is in a Mathcad
> worksheet, but I have copied it to a gif file which you can view on my
> website at http://www.vk1od.net/bpl/loop.mcd.gif . (The worksheet is
> entirely in metric units.)
>
> I would appreciate any comments / review on the model and calcs.
>
> Owen

Looks pretty decent, until the very end. Antenna Factor (AF) is the ratio of the field strength voltage to the output VOLTAGE, not power, although you did get the numbers right.

So practically, since the average ham has a receiver with a sensitivity in the order of a microvolt, then your antenna limits your minimum discernable signal level to around 65 uV/m. Maybe 100 uV/m to be on the safe side. That's likely quite adequate for detecting BPL noise, but the real problem is having the average ham get an anywhere near reasonably accurate measurement of 100 uV. Your S meter just isn't good enough, so now you're moving beyond the "average" ham's capability. Accurizing your receiver into an RF microvoltmeter is a tough task, so maybe the best route is to use a signal generator as a comparison standard. Old boatanchor signal generators in the 7 MHz region are reasonably available, and their attenuators are a lot better than their frequency stability and portability. <g>

I applaud your goals, but getting data accurate enough to toss into an intelligent argument about BPL is a tough task. Good luck.

--
Ed
WB6WSN

El Cajon, CA USA

1459. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 01:42:13 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <atidnYFykKvpUCnfRVn-ow@adelphia.com>
Source record: 74575

Richard Clark wrote:
> On Fri, 17 Jun 2005 15:48:08 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>We can demonstrate standing waves using a laser beam normal to a perfect mirror.
>
> "We?"
>
> Let's see, a hypothetical argument, involving
> a hypothetical "We," performing
> a hypothetical analysis that contains 0 places of precision, yielding
> a hypothetical answer that will be
> hypothetically true and
> hypothetically false
> hypothetically

What if there were no hypothetical arguments? ;^)

- Mike KB3EIA -

1460. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 01:59:51 UTC
From: Owen <none@no.where>
Message-ID: <rk4te.22197$F7.9755@news-server.bigpond.net.au>
Source record: 74576

Ed Price wrote:

> Looks pretty decent, until the very end. Antenna Factor (AF) is the ratio of
> the field strength voltage to the output VOLTAGE, not power, although you
> did get the numbers right.

I have looked at it and I can't see that I said "power" in relation to
Antenna Factor. Perhaps I am blind. (You didn't confuse the units dB/m
(dB per meter) with dBm (db wrt 1mW) did you?)
>
> So practically, since the average ham has a receiver with a sensitivity in
> the order of a microvolt, then your antenna limits your minimum discernable
> signal level to around 65 uV/m. Maybe 100 uV/m to be on the safe side.

In fact, the technique calls for measuring signals on the rx from the
noise floor to about 20dB above it. The noise floor for receivers today
is typically -135dBm.

> That's likely quite adequate for detecting BPL noise, but the real problem
> is having the average ham get an anywhere near reasonably accurate
> measurement of 100 uV. Your S meter just isn't good enough, so now you're
> moving beyond the "average" ham's capability. Accurizing your receiver into
> an RF microvoltmeter is a tough task, so maybe the best route is to use a
> signal generator as a comparison standard. Old boatanchor signal generators
> in the 7 MHz region are reasonably available, and their attenuators are a
> lot better than their frequency stability and portability. <g>

No, the technique does not use an S-meter. In a nutshell, it uses Ed
Hare's (W1RFI) technique for calibrating the noise floor of the
receiver, using an external attenuator to keep the rx input below the
AGC threshold, and measuring the audio output with signal and the audio
output from rx internal noise as inputs to a calculation of the input
signal power. Applying external attenuator losses, feedline losses and
antenna factor allows calculation of field strength.

> I applaud your goals, but getting data accurate enough to toss into an
> intelligent argument about BPL is a tough task. Good luck.
>

I have gotten sidetracked here, my real interest is the completeness /
accuracy of the loop model.

Owen

1461. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 03:46:57 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <9fed3$42b4eab7$97d55d24$15817@ALLTEL.NET>
Source record: 74577

A well thought out approach, nice job!

"Owen" <none@no.where> wrote in message
news:rk4te.22197$F7.9755@news-server.bigpond.net.au...

> I have gotten sidetracked here, my real interest is the completeness /
> accuracy of the loop model.
>
> Owen

1462. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 03:49:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d92pvc$n12$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74579

If you find yourself short of sensitivity, try a tuned loop in the
style of a magloop and match the antenna to the receiver.

But whatever you adopt, accuracy will be limited by the uncertainty in
the amateur's receiver input impedance. This will change from band to
band and its actual value will be a matter of guesswork.

A receiver's input impedance can be masked with an attenuator. But
this further reduces sensitivity.

With amateur grade equipment, facilities and environment, expect a
measuring uncertainty in the region of 4 to 7 dB at 7 MHz. Which is
good enough for most amateur purposes and makes your precision
calculations, including conductor diameter and conductivity, not worth
the trouble.

All you need for calculation is enclosed loop area, loop inductance,
receiver impedance and a pocket calculator.

The uncertainty of a measurement is just as important as the value
itself. The only way to assess uncertainty is to compare with
professional-grade equipment. In which case, if professional grade is
obtainable, you can dump the amateur stuff.

I do like the way your calculations appeared on my screen with one
mouse click.
How do you do it?

Reg.

==========

"Owen" <none@no.where> wrote in message
news:Vq2te.22072$F7.18293@news-server.bigpond.net.au...
>
> I have been working on the BPL Interference issue.
>
> One of my projects has been exploring ways by which ordinary (well,
> competent anyway,) amateurs can make reasonably reliable
measurements of
> noise / interference using existing amateur station equipment or
> equipment that is easy for amateurs to construct.
>
> This has led me to search for a portable antenna of reasonably
> predictable gain that can be used with a known HF SSB receiver.
>

> I have had a hack at predicting the gain and antenna factor of a
small
> square untuned loop driving a 50 ohm load. The model is in a Mathcad
> worksheet, but I have copied it to a gif file which you can view on
my
> website at http://www.vk1od.net/bpl/loop.mcd.gif . (The worksheet is
> entirely in metric units.)
>
> I would appreciate any comments / review on the model and calcs.
>
> Owen

1463. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 03:49:08 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <UW5te.50895$wr.24715@clgrps12>
Source record: 74578

> Looks pretty decent, until the very end. Antenna Factor (AF) is the ratio
> of the field strength voltage to the output VOLTAGE, not power, although
> you did get the numbers right.
>
> So practically, since the average ham has a receiver with a sensitivity in
> the order of a microvolt, then your antenna limits your minimum
> discernable signal level to around 65 uV/m. Maybe 100 uV/m to be on the
> safe side. That's likely quite adequate for detecting BPL noise, but the
> real problem is having the average ham get an anywhere near reasonably
> accurate measurement of 100 uV. Your S meter just isn't good enough, so
> now you're moving beyond the "average" ham's capability. Accurizing your
> receiver into an RF microvoltmeter is a tough task, so maybe the best
> route is to use a signal generator as a comparison standard. Old
> boatanchor signal generators in the 7 MHz region are reasonably available,
> and their attenuators are a lot better than their frequency stability and
> portability. <g>
>
> I applaud your goals, but getting data accurate enough to toss into an
> intelligent argument about BPL is a tough task. Good luck.
>
> --
> Ed
> WB6WSN
> El Cajon, CA USA

In the BPL report at
http://www.ofcom.org.uk/research/technology/cet/powerline/ascom.pdf
I noticed the system noise floor at about 10 dBuV/m (in 9 kHz). For the
tests they used an active bi-conical antenna. (By my calculations 10 dBuV/m
is about 9 uV(2.5 kHz BW) from a 40 m dipole at 7 MHz.) In the previously
mentioned report most of the BPL signals -- even at 1 meter from the
source -- is < 60 dBuV/m. It seems your system with the loop will be much
less sensitive at about 100 uV/m (+40 dBuV/m).

Incidentally, when I attempted to save your web page of math, it was saved
as an ".mcd" document. Obviously I was not able to open it with Mathcad,
but will have to type it in by hand.

Might be interesting to replicate your results with NEC2.

Frank

1464. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 04:10:47 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-5A768E.21104718062005@morgoth.sfu.ca>
Source record: 74580

In article <ryeburn-3EA56D.23565217062005@morgoth.sfu.ca>,
David Ryeburn <ryeburn@sfu.caz> wrote:

> In article <jdJse.20746$F7.3677@news-server.bigpond.net.au>,
> Owen <none@no.where> wrote:
>
> > Indeed. It occurs to me that if one was to try to measure VSWR (say
> > using a slotted line with probe) on a lossy line operating at high VSWR,
> > the best estimate would come from finding a minimum, measuring it and
> > the adjacent maxima and calculating VSWR=(Vmax1+Vmax2)/Vmin/2 so that
> > the measurement is biassed towards the notional VSWR at the point of the
> > minimum (the minimum being much more sensitive to line attenuation than
> > the maxima).
>
> If you think about exponential decay along the line, the geometric mean
> sqrt(Vmax1 * Vmax2) would be an even better replacement for Vmax, to use
> in the numerator, than the arithmetic mean (Vmax1 * Vmax2)/2.
?

I should have typed (Vmax1 + Vmax2)/2 and not (Vmax1 * Vmax2)/2.
Shouldn't post at three minutes before midnight.

Also, in article <bvd9b1lsu158lp7n9fvort8hpg6528enba@4ax.com>,
Wes Stewart <n7ws_@*yahoo.com> wrote:

> On 18 Jun 2005 14:20:34 -0700, radio913@aol.com wrote:
>
> [snip]
> >
> >Rho can never be greater than one going into a passive
> >network. Only when you have an active device, or gain, can
> >you move outside of the unity circle on the Smith Chart.
>
>
> You better raise your deflection shield.
>
> Go ahead Tom, you have the honor.

I did my best with this same issue a year or two ago, and in the light
of what transpired then I suggest you not waste your time, Tom! The
easiest way to see that (under very special circumstances) rho can
exceed 1 in a passive network uses a simple geometrical argument*.
Unfortunately geometry has even less attention paid to it today than it
did when I was in high school.

*Tradition has it that words translatable as "Let no one ignorant of geometry enter" were written on the door of Plato's Academy. This is probably not true, though Plato certainly had a high opinion of geometry. See

<http://plato-dialogues.org/faq/faq009.htm>

David, ex-W8EZE, retired SFU mathematician, and Google addict

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

1465. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 04:52:56 UTC
From: Owen <none@no.where>
Message-ID: <IS6te.22381$F7.4649@news-server.bigpond.net.au>
Source record: 74581

Reg Edwards wrote:
> If you find yourself short of sensitivity, try a tuned loop in the
> style of a magloop and match the antenna to the receiver.
>

In concert with an SSB rx of noise floor -135dBm in 2KHz Effective noise bandwidth (they are realistic figures for an IC706IIG for example), the rx noise in 2KHz BW is 0.04uV. With an antenna with AF=36dB, the rx noise floor translates to field strength of 2.5uV/m or 8dBuV/m.

Clearly, the "instrument" is not going to be suitable for measurements below 11dBuV/m. However, measurements of the BPL systems on "trial" here (Mitusbishi based on DS/2 45Mbps chipsets) showed field strengths of 45 to 65dBuV/m in 2Hz and a rx with this loop needs 20+dB of RF attenuation to keep the interference below the AGC threshold (with the benefit of stabilising the rx input Z somewhat).

> But whatever you adopt, accuracy will be limited by the uncertainty in
> the amateur's receiver input impedance. This will change from band to
> band and its actual value will be a matter of guesswork.

Yes, I have been measuring the rx noise floor with 20dB of attenuation to simulate the common measurement configuration.

>
> A receiver's input impedance can be masked with an attenuator. But
> this further reduces sensitivity.
>

As discussed.

> With amateur grade equipment, facilities and environment, expect a
> measuring uncertainty in the region of 4 to 7 dB at 7 MHz. Which is
> good enough for most amateur purposes and makes your precision
> calculations, including conductor diameter and conductivity, not worth
> the trouble.

Given that the interference is 70dB above the ambient noise floor, we don't need 1/10dB accuracy to demonstrate to regulators that there is a problem

>
> All you need for calculation is enclosed loop area, loop inductance,
> receiver impedance and a pocket calculator.
>
> The uncertainty of a measurement is just as important as the value
> itself. The only way to assess uncertainty is to compare with

> professional-grade equipment. In which case, if professional grade is
> obtainable, you can dump the amateur stuff.

Understood. My view is that if professional grade EMC measurement kit is
available, we can use it to do a lower grade calibration of the amateur kit.

>
> I do like the way your calculations appeared on my screen with one
> mouse click.
> How do you do it?

The model is in Mathcad, I copied it to the clipboard and pasted it into
Frontpage (my web editor) which finds only a useful format in the
clipboard and saves it as a GIF file (ie a graphics image).

Thanks for checking the model Reg, I think you are telling me it is more
precise than needs to be, but you haven't faulted it for accuracy.

Owen

1466. Re: Adding 6 meters to 20

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 05:13:07 UTC
From: nm5k@wt.net
Message-ID: <1119157987.491213.162100@g47g2000cwa.googlegroups.com>
Source record: 74582

We did some
experimenting and discovered he gains one s-unit by using the beam
pointed at me vs using the 80 meter loop.

Not unusual really...The big HF antennas have quite a
bit of gain in some directions...Some other direction,
it might be a dud though...Wonder how much gain his
"log" has...Most are fairly average, being they are
covering a pretty wide range. On the other hand,
my 3 el is set up for maximum gain..About 9.4 dbi,
or about 7.25 or so dbd. He may have that much gain,
if he has quite a few elements. I'm probably getting
more bang per buck per pound of metal, at that one
frequency...I often talk off the back and sides.. I don't
have a rotor. If I need to turn it, I have to go out and
"armstrong" the mast...So I note the skip trends at the
time, and turn it that way. Usually east in the early day.
Often later, as the skip drifts west, I'll end up swinging it
around in the evening. Most lately is E skip...Here at this
qth, the HF antennas have gain also, but they are fairly
unusable due to the trashing of the receiver. On the 706,
the yagi really cleans it up. This is probably worth more
here, than the transmit gain. My usual parallel dipole setup
for the low bands is resonant on 6m pretty close. I don't
even need a tuner , if I remember right...I'm sure it's got
some pretty good gain in some directions. But the beam
still smokes it overall. I actually don't get on there all that much,
as I usually don't notice the band openings, and have been
busy also...But all the people I've worked so far gave me
really good reports. I did do a f/b test with it , right after I
built it, and it seemed to jive with the model almost exactly.
Or as far as I could tell with my limited, means of
measurement...The beam is an exact copy of the NBS
yagi in elnec/eznec. MK

1467. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 05:17:06 UTC
From: Owen <none@no.where>
Message-ID: <md7te.22394$F7.13098@news-server.bigpond.net.au>
Source record: 74583

Frank wrote:

> In the BPL report at
> http://www.ofcom.org.uk/research/technology/cet/powerline/ascom.pdf
> I noticed the system noise floor at about 10 dBuV/m (in 9 kHz). For the
> tests they used an active bi-conical antenna. (By my calculations 10 dBuV/m
> is about 9 uV(2.5 kHz BW) from a 40 m dipole at 7 MHz.) In the previously

Yes, Fig 8 shows about 10dBuV/m in 9KHz which interpolates to 5dBuV/m in 3KHz, and their measurements used a peak detector. On white noise, the QP value would probably be 2 to 3dB lower.

I have made a large number of measurements at my home QTH (in a residential neighbourhoos) using a half wave dipole and assuming an average gain of -1.2dBi or an AF of -11.6dB/m and I regularly get ambient noise readings down to around 0 to 3dBuV/m QP in 3KHz or extrapolated to 9KHz BW, 5 to 8dBuV/m QP. Ambient noise is probably lower than indicated by ITU P372-8!

> mentioned report most of the BPL signals -- even at 1 meter from the
> source -- is < 60 dBuV/m. It seems your system with the loop will be much
> less sensitive at about 100 uV/m (+40 dBuV/m).
>

See my response to Reg re the noise floor for the setup, I make it around 8dbuV/m or 2.5uV/m. I don't pretend it can measure ambient noise, but it can and has measured BPL interference at 40dBuV/m to 70dBuV/m.

> Incidentally, when I attempted to save your web page of math, it was saved
> as an ".mcd" document. Obviously I was not able to open it with Mathcad,
> but will have to type it in by hand.

No you won't, I have posted a later version of the mathcad file to http://www.vk1od.net/bpl/loop02.mcd .

The file you downloaded is an image (.gif) called loop.mcd.gif, and it looks like your download process dropped the extension, or you hide the extension on your machine. (Some software thinks that the first dot begins the file extension, whereas it is the last dot that does so.)

>
> Might be interesting to replicate your results with NEC2.

I have modeled the loop in EZNEC and get very similar inductance and resistances.

Thanks Fred, appreciate the review.

Owen

1468. Re: Attic antenna: precautions for nearby AC wiring?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 05:29:00 UTC
From: nm5k@wt.net
Message-ID: <1119158940.625035.99580@z14g2000cwz.googlegroups.com>
Source record: 74584

Dunno....You never know what will happen. Will
usually vary per freq...One freq might do nothing,
and another trash everything you have...Myself,
I have a 40 dipole in the attic , fed with 300 ohm
line to a tuner, but I use it so rarely, I didn't bother
with any of that...It's just a backup, and bad wx
antenna...Myself, I probably put up the antenna, and
try it. If it trashes something, I'd concentrate on those
wires first. You never know...You might get lucky and
not need much. But...if you gotta lot of beads around,
and want to try preventive beading , while you install
the antenna, I could you could. Wouldn't hurt anything..
MK

1469. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 05:29:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d92vqvbah1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74585

One of the most serious sources of error will be pick-up on the long line between the small loop and the receiver. With a coax line there will be a greater signal pick up on the coax braid than there is in the loop. They are both located in the same field.

So best to use very low impedance balanced pair line such as 50 ohms perhaps with a screening braid. A good choke balun or a 1-to-1 wound transformer would be advisable between the line and receiver input.

Also, depending on frequency, length and impedances, there may be standing waves on the line which could make a mess of your calculations.

A change in line length is a good way to check for errors of this sort.

Fortunately, field strength measurements are seldom needed to great accuracy. Strength is usually required only to be less than or greater than some specified value and there is an ample margin for error.

Personally, I think a tuned loop, in the fashion of a magloop, is a better bet. With its small coupling loop the main loop can be completely isolated from the line and the line can be ordinary coax which matches a 50-ohm receiver.

A tuned loop is far more sensitive than the untuned variety. But its operating frequency range is somwhat restricted.

Field strength measurements are essentially power level measurements and, ideally, the pick-up loop should be impedance matched to the receiver. Result : no reflections.

Reg.

1470. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 06:04:44 UTC
From: Owen <none@no.where>
Message-ID: <0W7te.22416$F7.20498@news-server.bigpond.net.au>
Source record: 74586

Reg Edwards wrote:
> One of the most serious sources of error will be pick-up on the long
> line between the small loop and the receiver. With a coax line there
> will be a greater signal pick up on the coax braid than there is in
> the loop. They are both located in the same field.
>
> So best to use very low impedance balanced pair line such as 50 ohms
> perhaps with a screening braid. A good choke balun or a 1-to-1 wound
> transformer would be advisable between the line and receiver input.
>

Agreed. Because of the inherent balance of the whole loop I have use a "Voltage Balun", see http://www.vk1od.net/bpl/loop.jpg . I have made observations of the received signal level when close to aerial telephone lines carrying ADSL and the pickup level seems the same no matter which side of the loop is nearest the aerial line.

> Also, depending on frequency, length and impedances, there may be
> standing waves on the line which could make a mess of your
> calculations.

I have made the assumption that the line is adequately terminated in 50 ohms (the attenuator, and there should be now standing waves. Doesn't that seem reasonable?

>
> A change in line length is a good way to check for errors of this
> sort.
>
> Fortunately, field strength measurements are seldom needed to great
> accuracy. Strength is usually required only to be less than or greater
> than some specified value and there is an ample margin for error.
>
> Personally, I think a tuned loop, in the fashion of a magloop, is a
> better bet. With its small coupling loop the main loop can be
> completely isolated from the line and the line can be ordinary coax
> which matches a 50-ohm receiver.
>
> A tuned loop is far more sensitive than the untuned variety. But its
> operating frequency range is somwhat restricted.
>

Noted.

I have encouraged another ham friend to design an active loop with an AF good enough to get the system noise floor below -10dBuV at 7MHz. That

is another alternative, and it has issues I know.

I am also considering trying to measure the performance of a portable short dipole such as a buddipole (http://www.buddipole.com/) for the purposes of measurement down to ambient noise and a little lower.

> Field strength measurements are essentially power level measurements
> and, ideally, the pick-up loop should be impedance matched to the
> receiver. Result : no reflections.

But if the rx terminates the line, does it matter whether the "generator" impedance is matched? (I am not trying to bait anyone here, but Reg, I think I understand the standing wave issue you are raising, but my reasoning is that if the rx terminates the line sufficiently well, then standing wave ratio will be small and the error contribution negligible.)

(I think the lights have gone out on the other side of the big pond.)

Owen

1471. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 08:54:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d93brfamd1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74587

Owen,
I gather you are interested in measurents only in the 40m band which makes life easier. The photograph of the loop and line makes it more clear what you are up to.

Yes, there will be no standing waves on the line if the line Zo is equal to receiver input impedance. (I didn't make myself clear). If a balun is used it doesn't matter much what Zo is, provided the balun has the correct ratio. So it is necessary to know what Zo actually is just as accurately as the input impedance is known.

With your setup it is impossible to match the loop to the line. But if it WAS possible (eg., as with a magloop) it would NOT be to prevent standing waves.

Your calculations take the loop/line mismatch loss into account. Its only a few dB.

Incidentally, have you considered what effects increasing the number of turns to 2 or 3 would have? They MIGHT possibly be beneficial. It needs more calculations. As with just increasing the size of the loop which almost certainly would be beneficial.

You have set yourself a most interesting and useful task. I wish you well with it.

Reg, G4FGQ

1472. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 09:58:26 UTC
From: radio913@aol.com
Message-ID: <1119175106.694782.208110@g43g2000cwa.googlegroups.com>
Source record: 74588

Wes Stewart wrote:
> On 18 Jun 2005 14:20:34 -0700, radio913@aol.com wrote:
>
> [snip]
> >
> >Rho can never be greater than one going into a passive
> >network. Only when you have an active device, or gain, can
> >you move outside of the unity circle on the Smith Chart.
>
>
> You better raise your deflection shield.
>

No need to, i have the laws of physics
on my side!

Hint: Conservation of Energy!

Slick

1473. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 10:58:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d93j47$cv0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74589

> Rho can never be greater than one going into a passive
> network. Only when you have an active device, or gain, can
> you move outside of the unity circle on the Smith Chart.
>
> Slick
>
==========

Yes, Rho CAN exceed unity when the termination is a passive network.

For example, when on a real line, Zo = Ro - jXo and the termination Zt = Rt + jXt then Rho can exceed unity.

Rho has an absolute maximum value which approaches 1 + Sqrt(2) = 2.4142 which occurs when the angle of Zo approaches -45 degrees and Zt is purely inductive.

It arises because of a weak resonant effect between -jXo and + jXt.

The angle of Zo of real lines always becomes more negative as frequency decreases. Mr Smith's Chart does not recognise this. He did it knowingly and deliberately. There are other departures from reality. But at least it is fit for its few intended purposes.

Reg, G4FGQ

1474. Re: Attic antenna: precautions for nearby AC wiring?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 13:10:09 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <f1rab1l3ee099bue96a5nj3ehoaphk0eo6@4ax.com>
Source record: 74590

On Sat, 18 Jun 2005 13:51:29 -0500, Ben Jackson <ben@ben.com> wrote:

>With an attic dipole installation is it worth putting snap-on ferrites
>on AC wiring or other low voltage (phone, network) cabling that's nearby?

At a previous house, I had a 10 meter attic dipole that made the whole
house come alive when I keyed anything -- had to take it down. On the
other hand, I had an R5 vertical on the roof, just a few feet away
from the same wiring, and it did nothing to the wiring.

Your best bet is to just put the antenna up, see what happens, then
try any corrective actions, if any are needed.

bob
k5qwg

1475. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 13:29:58 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <pfSdnTnqUqPR7ijfRVn-qQ@comcast.com>
Source record: 74591

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d93j47$cv0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
.....
> Yes, Rho CAN exceed unity when the termination is a passive network.
>
> For example, when on a real line, Zo = Ro - jXo and the termination Zt
> = Rt + jXt then Rho can exceed unity.
>
> Rho has an absolute maximum value which approaches 1 + Sqrt(2) =
> 2.4142 which occurs when the angle of Zo approaches -45 degrees and Zt
> is purely inductive.
>
> It arises because of a weak resonant effect between -jXo and + jXt.
>
> The angle of Zo of real lines always becomes more negative as
> frequency decreases. Mr Smith's Chart does not recognise this. He did
> it knowingly and deliberately. There are other departures from
> reality. But at least it is fit for its few intended purposes.
> ----
> Reg, G4FGQ
>
That is exacly what is in a book I have.

Tam

1476. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 13:38:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119188334.322677.10230@g49g2000cwa.googlegroups.com>
Source record: 74592

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "If so, where does the inductance and capacitance in free space come
> from to generate that 377 ohms of characteristic impedance?"
>
> First, impedance is a voltage to current ratio as in Ohm`s law.

Thanks, Richard. The question was somewhat rhetorical and was aimed at the people who believe that EM wave energy "sloshes" around in a transmission line between the inductance and capacitance in the transmission line and that there is really no forward EM wave energy or momentum traveling at the speed of light and no reflected EM wave energy or momentum traveling at the speed of light.

So I provided a mental example of a laser beam with reflections demonstrating standing waves in free space. Except for the wavelength, all field conditions are similiar to an RF transmission line with standing waves. So how does the light energy "slosh" around without the inductance and capacitance in free space?
--
73, Cecil http://www.qsl.net/w5dxp

1477. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 14:12:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119190327.483764.273350@o13g2000cwo.googlegroups.com>
Source record: 74593

Walter Maxwell wrote:

> Cecil, define 'sloshing.'

Hi Walt, I'm having trouble with my news-server so I am posting from Google using procedures to which I am not accustomed.

The classic wave reflection model indicates that forward power travels from the source to the load where it is incident upon the load. At a load mismatch, some of the forward power is rejected and travels back from the load toward the source as a reflected wave. For instance, in the following lossless example, we have 104.17 watts of forward wave and 4.17 watts of reflected wave on the 75 ohm line. This is all in line with "Reflections" and my unpublished article.

100W--50 ohm line--+--1/4WL 75 ohm line---112.5 ohm load

As I infer/understand what Roy, and others, have said while objecting to the material in my unpublished article:

The only real forward power wave is the one that is dissipated in the load. The reflected power wave doesn't travel from the load back toward the source and the extra 4.17 watts in the forward wave doesn't travel from the match point back toward the load. The energy associated with the reflected waves just "sloshes" around in the transmission line and doesn't move very far or very fast and certainly not in the form of EM wave components.

So Roy's use of the word "slosh" in the context in which he used it, is all I can give you. Roy hasn't defined the word and neither has the IEEE. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1478. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 14:22:29 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <5rrab1pdpkd8tbkmn7mljaphhuohch1t30@4ax.com>
Source record: 74594

On Sun, 19 Jun 2005 10:58:15 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> Rho can never be greater than one going into a passive
>> network. Only when you have an active device, or gain, can
>> you move outside of the unity circle on the Smith Chart.
>>
>> Slick
>>
>==========
>
>Yes, Rho CAN exceed unity when the termination is a passive network.
>
>For example, when on a real line, Zo = Ro - jXo and the termination Zt
>= Rt + jXt then Rho can exceed unity.

Thanks Reg, you beat Tom to it. [g]

This was beaten to death (well, I guess it *wasn't* beaten to death,
here it is again) over and over again.

Chipman in section 7.6 "Complex characteristic impedance" deals with
this and concurs with what Reg says above and below.

>
>Rho has an absolute maximum value which approaches 1 + Sqrt(2) =
>2.4142 which occurs when the angle of Zo approaches -45 degrees and Zt
>is purely inductive.
>
>It arises because of a weak resonant effect between -jXo and + jXt.
>
>The angle of Zo of real lines always becomes more negative as
>frequency decreases. Mr Smith's Chart does not recognise this. He did
>it knowingly and deliberately. There are other departures from
>reality. But at least it is fit for its few intended purposes.
>----
>Reg, G4FGQ
>

1479. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 14:25:15 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <etvab1tbii6dp59puo0nkm3gtetb9gbv5r@4ax.com>
Source record: 74595

On 19 Jun 2005 02:58:26 -0700, radio913@aol.com wrote:

>
>
>Wes Stewart wrote:
>> On 18 Jun 2005 14:20:34 -0700, radio913@aol.com wrote:
>>
>> [snip]
>> >
>> >Rho can never be greater than one going into a passive
>> >network. Only when you have an active device, or gain, can
>> >you move outside of the unity circle on the Smith Chart.
>>
>>
>> You better raise your deflection shield.
>>
>
> No need to, i have the laws of physics
>on my side!
>
> Hint: Conservation of Energy!

Hint. Read Chipman section 7.6.

He states in part, "To establish that the principle of conservation of
energy is not violated on a transmission line even when the magnitude
of the reflection coefficient at a point on the line exceeds
unity......."

1480. RE: Parallel Lines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 14:38:50 UTC
From: ve3ab@personainternet.com
Message-ID: <42b582e9.308967671@news.personainternet.com>
Source record: 74596

I think if you check the ARRL Antenna Handbook..you will find something on 4 wire lines. As I recall..the impedance is around 200 ohms..(nominal) as compared with 400 to 600 ohm z of parallel lines..so ..I guess..the impedance is lowered by a factor when using 4 lines (in a square)...Im going by memory..so dont take this as solid facts.

1481. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 15:01:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b589d9$1_1@spool9-west.superfeed.net>
Source record: 74598

Wes Stewart wrote:
> He states in part, "To establish that the principle of conservation of
> energy is not violated on a transmission line even when the magnitude
> of the reflection coefficient at a point on the line exceeds
> unity......."

Isn't it the same principle as a capacitor in a resonant circuit
being able to develop a higher voltage than the voltage incident
upon the resonant circuit?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1482. Re: Ham/electronics stores in LA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 15:04:11 UTC
From: "Capt 'Wild' Bill Kelso, USAAC" <Dec7.1941@cableaz.com>
Message-ID: <42B58964.A58948B0@cableaz.com>
Source record: 74597
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.hf,rec.radio.amateur.boatanchors

TOM wrote:
>
> Two places to try are:
>
> Orvac Electronics
> (714) 871-1020
> (714) 871-1951
> 1645 E Orangethorpe Ave
> Fullerton, CA 92831
>
> Marvac Electronics
> 2001 Harbor Blvd
> Costa Mesa, CA 92627
> Phone 949-650-2001

Is Juns still open? It was on the road that runs N-S just off the east end of the LAX.. Sepulveda, I think... Was about 2mi N of the airport... west side of the street.

There was another store was close to, just north of, DL. I remember passing it heading south off one of the big highways. Was also on the west side of the street.

TJ, NS2E
PHX
==========
Pilots track their lives by the number of hours in the air,
as if any other time isn't worth noting....
Michael Rarfit

1483. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 16:22:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9463t$8jr$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74599

> That is exacly what is in a book I have.
>
> Tam
>
==========

Good! That proves your book is correct.

Is it by Kraus or Terman?

1484. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 16:33:47 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <8cKdnUgcnLT8AyjfRVn-rA@comcast.com>
Source record: 74600

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9463t$8jr$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>> That is exacly what is in a book I have.
>>
>> Tam
>>
> ========================
>
> Good! That proves your book is correct.
>
> Is it by Kraus or Terman?
>
>
Adler, Fano & Chu. It is the book Chipman used in his course.

Tam

1485. grounding for a long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 16:33:49 UTC
From: ineverlookatthis@yahoo.com
Message-ID: <1119198829.932598.198910@g44g2000cwa.googlegroups.com>
Source record: 74601

I would appreciate some advice on grounding for a long wire antenna.

I am just thinking about setting-up my new QTH mainly for 40m and 20m. I would like to try a longwire (around 100m long) with an SG230 ATU, largely because I have an opportunity to sling a long wire high and clear. But how important is orientation of grounding elements? I could bury wire under a small lawn (10m x 10m) but it would lie under just a fraction of the feed end of the longwire. Is this workable ? Alternatively (or additionally) I could run a long wire (again around 100m) in a straight line just beneath grass but at almost 90 degrees to the antenna. I could also connect the far end of this long ground wire to a big galvanised steel fence that runs for almost a mile, I guess that would make a great counterpoise??

What do you guys recommend

Thanks

1486. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 16:46:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2l7bb1pc9fpidnup786bmdoqkdrh7m296d@4ax.com>
Source record: 74602

On Sun, 19 Jun 2005 01:59:51 GMT, Owen <none@no.where> wrote:

Hi Owen,

Between:

>I have looked at it and I can't see that I said "power" in relation to
>Antenna Factor. Perhaps I am blind. (You didn't confuse the units dB/m
>(dB per meter) with dBm (db wrt 1mW) did you?)

and:

>I have gotten sidetracked here, my real interest is the completeness /
>accuracy of the loop model.

I have observed that your Mathcad design is short of providing
something of a self-check feature. No where in any of your formulas
do you use Units.

Yes, you label them as notes, but this is risky and has been revealed
in your first comments in response to Ed's comment:
>> Looks pretty decent, until the very end. Antenna Factor (AF) is the ratio of
>> the field strength voltage to the output VOLTAGE, not power, although you
>> did get the numbers right.

Folks who follow your math work, will be skimming it, and perhaps a
few will be transcribing it while others will have picked up your MCD
file. This is to say, very few will actually go the whole distance
for a sanity check.

That sanity check is to include the Units within the formulaic Mathcad
expression; that is, after all, one of the boons of using this
package, otherwise any spread sheet would do as well. This inclusion
would enforce a strict compliance with keeping every transformation
accurate, and you would not end up mixing terms which is very simple
to do - and later suffer from. Cecil's work with Photonics suffers
from this problem horribly such that expressions of power end up in
terms so bizarre and thoroughly out of whack that anything could be
proven, except the proof.

73's
Richard Clark, KB7QHC

1487. Re: grounding for a long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 16:55:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dj8bb1tbrmt3j0nhgvdj369nb3qa53p2pi@4ax.com>
Source record: 74603

On 19 Jun 2005 09:33:49 -0700, ineverlookatthis@yahoo.com wrote:
>I could bury wire under a small lawn (10m x 10m) but it would lie under just a
>fraction of the feed end of the longwire.

Hi OM,

A small set of radials (8 - 16) planted just into the soil of that 10m
x 10m patch would be adequate. Being under just a fraction,
presumably it would be under the fraction that is closest to Earth -
hence the significant fraction.

73's
Richard Clark, KB7QHC

1488. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 17:22:45 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1119201765.014795.220630@g47g2000cwa.googlegroups.com>
Source record: 74604

Wes Stewart wrote:
"Go ahead Tom, you have the honor. "

It's not worth the effort, Wes. He wasn't willing (or perhaps he was just unable) to do the math last year, and I suppose he isn't this year either. He was willing to call me a liar instead of getting ahold of Besser himself and verifying that Besser long ago corrected that typo about using the complex conjugate in the formula for reflection coefficient.

Anyone willing to start with the very basic idea that forward and reverse waves on uniform TEM lines are independent and the ratio of voltage to current in each of them is equal to the line impedance, plus a few other elementary ideas like the sum of currents into a node is zero can, with a bit of algebraic facility, verify the derivation of reflection coefficient expressed in terms of line and load impedance. Or, they can look in the archives (via Google, etc.) to see it presented in past threads here.

Cheers,
Tom

1489. Reflection Coefficient

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 17:23:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d949m1$jk1$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74605

If Rho (or Gamma) is treated as being a magnitude with an angle which, as one moves backwards along the line, may fall in any of the four quadrants, all those futile arguments about whether or not to use Z or Z* fall by the wayside.

Just proceed with calculations in the normal, mathematically legitimate manner and you will arrive at the correct results or conclusions.

If you disagree with results or conclusions, and there are no mathematical errors, then it is YOU who must be wrong. It's all part of the learning process.

And the magnitude of Rho CAN exceed unity.

Reg.

1490. Antenna Impedance Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 17:48:24 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ldite.3130$mD6.668@fe07.lga>
Source record: 74606

Quite some time ago, for the purpose of determining the effect of ground on the terminal impedance of a dipole, I measured the terminal impedance of a center-fed dipole, length 32.33 ft. at frequencies every 50 KHz from 14.0 to 15.0 MHz, at heights of 0, 1, 2, 3, 4, 5, 8, 10, 12, 14, 16, and 22 ft above ground. A total of 252 individual measurements.

The equipment used for the measurements were a calibrated 40 ft RG-58 feedline, [calibrated for electrical length and attenuation at frequencies f(x)], a balun consisting of 100 #73 beads over a 2 ft length of RG-303 coax (included in the feedline calibration), a General Radio GR-1606-A RF impedance bridge, a Ferris Microvolter 70B signal generator, and a Collins 75A-4 receiver.

The input impedances appearing at the input of the feedline were then transformed using the W2DU software program 'LINTRNSA' to obtain the impedances appearing at the dipole terminals. (LINTRNSA appears in both the 1st and 2nd editions of Reflections.)

The total data includes the R and X components of the impedances appearing at the input of the feedline, the values of rho and swr at both the feedline input and at the dipole terminals, and the R and X components of the dipole terminal impedances. A total of 2016 data points.

All of the data listed above is in tabular form, ready for putting into a PDF file for use by anyone who is interested in reviewing the data. The data is presented in the same format as in Reflections, Tables 15-4, 15-5, 20-1, 20-2, etc.

If anyone is interested I'll make the PDF file, and I'll be pleased to send it to all who would like a copy. Just give me a jingle (via email, that is at walt@w2du.com.

Walt

1491. Re: Reflection Coefficient

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 17:50:00 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <efite.3131$mD6.2557@fe07.lga>
Source record: 74607

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d949m1$jk1$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> If Rho (or Gamma) is treated as being a magnitude with an angle which,
> as one moves backwards along the line, may fall in any of the four
> quadrants, all those futile arguments about whether or not to use Z or
> Z* fall by the wayside.
>
> Just proceed with calculations in the normal, mathematically
> legitimate manner and you will arrive at the correct results or
> conclusions.
>
> If you disagree with results or conclusions, and there are no
> mathematical errors, then it is YOU who must be wrong. It's all part
> of the learning process.
>
> And the magnitude of Rho CAN exceed unity.
> ----
> Reg.
>
Amen to that, Reg,

Walt, W2DU

1492. Re: Antenna Impedance Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:05:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d94c4r$rc5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74608

Walt, did you measure ground conductivity and permittivity?

Or did you forget like messrs B, L & E.

Reg.

1493. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:06:21 UTC
From: Terry O'Neill <rfmscpa@earthlink.net>
Message-ID: <xuite.6616$NX4.5254@newsread1.news.pas.earthlink.net>
Source record: 74609

Here's a pretty good one:

http://www.smeter.net/antennas/mmana-tutorial.php

1494. roof or ground 'height'?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:11:20 UTC
From: ml <m@di.net>
Message-ID: <m-BBF01E.14111519062005@news.verizon.net>
Source record: 74611

hi

I have my antenna mounted on a apartment building roof, it's flat

it's about 20ft from the roof surface.

the roof/antenna is about 175ft above the ground

antenna 'rf' wise, i my antenna height measurement that i use, above
the ground or roof surface??

thanks

1495. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:14:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119204876.000380.186340@g43g2000cwa.googlegroups.com>
Source record: 74610

K7ITM wrote:
> Anyone willing to start with the very basic idea that forward and
> reverse waves on uniform TEM lines are independent and the ratio of
> voltage to current in each of them is equal to the line impedance, ...

What? You mean reflected energy doesn't "slosh" around? :-)
--
73, Cecil http://www.qsl.net/w5dxp

1496. Re: Antenna Impedance Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:27:37 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <vOite.3104$Gp.1802@fe04.lga>
Source record: 74612

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d94c4r$rc5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Walt, did you measure ground conductivity and permittivity?
>
> Or did you forget like messrs B, L & E.
> ----
> Reg.
>
No, Reg, I had no way of measuring them at the time. I was hoping to be able to interpolate the measured data in some way to determine conductivity and permittivity.

Walt

1497. Re: roof or ground 'height'?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:36:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3debb19faem6brd3q6qbg025kgsnue4tp8@4ax.com>
Source record: 74613

On Sun, 19 Jun 2005 18:11:20 GMT, ml <m@di.net> wrote:
>antenna 'rf' wise, i my antenna height measurement that i use, above
>the ground or roof surface??

Hi Myles,

Both. For purposes of feeding it, the proximity of other conductors
and sources of loss, the antenna is as close as that 20' you offer.
On the other hand, for purposes of propagation, your antenna will act
like it is elevated 175'.

Your experience, compared to others, will fall somewhere in between.
Personally, I would think you have a very nice situation. If you seek
to improve it, it would only be in shades of a degree, not in leaps
nor bounds.

73's
Richard Clark, KB7QHC

1498. Re: Antenna Impedance Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:43:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pqebb1pjcpnu00nqj62b6urq8dhd93s847@4ax.com>
Source record: 74614

On Sun, 19 Jun 2005 14:27:37 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>No, Reg, I had no way of measuring them at the time. I was hoping to be able to
>interpolate the measured data in some way to determine conductivity and
>permittivity.

Hi Walt,

Your interpolation is by far and away going to be superior to ANY
method Reg has to - well, I was going to say offer - but, Reg, you
have never had any method to offer, have you? You have sort of
mumbled on about mud in the kitchen sink, and averred to secret
recipes, but your limited experience with English garden soil is
rather inconsequential.

Walt, put me on your distribution list for those results. My copy of
your book is in other's hands.

73's
Richard Clark, KB7QHC

1499. Re: roof or ground 'height'?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 18:54:51 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <5qfbb1lpn9e9hm2vgq5mvduugvbm6bofq2@4ax.com>
Source record: 74615

On Sun, 19 Jun 2005 11:36:38 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:
[snip]

> If you seek
>to improve it, it would only be in shades of a degree, not in leaps
>nor bounds.

Certainly not near the edge of the roof anyway.

1500. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 19:46:23 UTC
From: radio913@aol.com
Message-ID: <1119210383.292032.13960@o13g2000cwo.googlegroups.com>
Source record: 74616

K7ITM wrote:
> Wes Stewart wrote:
> "Go ahead Tom, you have the honor. "
>
> It's not worth the effort, Wes. He wasn't willing (or perhaps he was
> just unable) to do the math last year, and I suppose he isn't this year
> either. He was willing to call me a liar instead of getting ahold of
> Besser himself and verifying that Besser long ago corrected that typo
> about using the complex conjugate in the formula for reflection
> coefficient.
>

And a liar you still are, apparently.

Besser has NOT corrected it, because it isn't
a typo! The ARRL also agrees.

Slick

1501. Re: grounding for a long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 19:59:37 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <f9jbb1lo3c505al0doadmcj3mf8iknanij@4ax.com>
Source record: 74617

On 19 Jun 2005 09:33:49 -0700, ineverlookatthis@yahoo.com wrote:

>I would appreciate some advice on grounding for a long wire antenna.
>
>I am just thinking about setting-up my new QTH mainly for 40m and 20m.
>I would like to try a longwire (around 100m long) with an SG230 ATU,
>largely because I have an opportunity to sling a long wire high and
>clear. But how important is orientation of grounding elements? I could
>bury wire under a small lawn (10m x 10m) but it would lie under just a
>fraction of the feed end of the longwire. Is this workable ?
>Alternatively (or additionally) I could run a long wire (again around
>100m) in a straight line just beneath grass but at almost 90 degrees to
>the antenna. I could also connect the far end of this long ground wire
>to a big galvanised steel fence that runs for almost a mile, I guess
>that would make a great counterpoise??
>
>What do you guys recommend
>
>Thanks

I recently put up a "long wire" for 20 meters -- three quarter waves
long -- had a high swr & key clicks, but brought it under control with
a single elevated quarter-wave radial, attached to the tuner ground
and going out the window, tacked to the house siding.

Quarter wave elevated radials may do the same for you, or you could
experiment a bit...

bob
k5qwg

1502. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 20:02:07 UTC
From: radio913@aol.com
Message-ID: <1119211327.869774.234340@g49g2000cwa.googlegroups.com>
Source record: 74618

Tam/WB2TT wrote:
> "Owen" <none@no.where> wrote in message
> news:efLse.21025$F7.15481@news-server.bigpond.net.au...
> > ....
> > I do note that my ARRL Antenna Handbook (18th edition) and ARRL Handbook
> > (2000) both use rho, however they reckon that rho=(Za-Zo*)/(Za+Zo) (where
> > Zo* means the conjugate of Zo). They do this without derivation, and seem
> > to be in conflict with the derivation in most texts. I suppose the
> > derivation is buried in some article in QST and in the members only
> > section of the ARRL website.
> >

Thank you, Owen. Les Besser agrees with the
ARRL.

However, in almost all practical calculations,
Zo is purely real, so that gamma=(Za-Zo)/(Za+Zo) is
used in most texts, and the results are the same.

>
> Owen,
>
> There was a big discussion about this last year, and somebody posted that
> the ARRL was going to eliminate the conjugate reference.
>
> Tam/WB2TT
>

Going to? It says 2000 on that ARRL Handbook!

They are NOT going to eliminate the conjugate
reference, because it's correct.

Slick

1503. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 21:24:49 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <Fir7FqChKetCFAJy@ifwtech.co.uk>
Source record: 74619

>> There was a big discussion about this last year, and somebody posted that
>> the ARRL was going to eliminate the conjugate reference.
>>
>> Tam/WB2TT
>>
>
>
> Going to? It says 2000 on that ARRL Handbook!
>
> They are NOT going to eliminate the conjugate reference, because
>it's correct.
>
Point of fact: in the current 20th edition, dated 2003, it has gone.

It had been correct; then they incorrectly revised it; now it has been
corrected again.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1504. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 21:44:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b5e81c$1_2@spool9-west.superfeed.net>
Source record: 74620

radio913@aol.com wrote:
> However, in almost all practical calculations,
> Zo is purely real, ...

Nope, "purely real" requires a special expensive line. I
forget what they call it. Ordinary feedline is not purely
real however close it might be.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1505. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 21:59:52 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <sVIte.82107$tt5.39942@edtnps90>
Source record: 74621

> No you won't, I have posted a later version of the mathcad file to
> http://www.vk1od.net/bpl/loop02.mcd .

Yes, got it ok, thanks.

> The file you downloaded is an image (.gif) called loop.mcd.gif, and it
> looks like your download process dropped the extension, or you hide the
> extension on your machine. (Some software thinks that the first dot begins
> the file extension, whereas it is the last dot that does so.)

Guessed it was something like that.

>> Might be interesting to replicate your results with NEC2.
>
> I have modeled the loop in EZNEC and get very similar inductance and
> resistances.

Now this is where it gets interesting, and hope I can learn something from it, as I am sure I have made a mistake someplace. I have not directly attempted to verify your math, so don't know if you developed it from first principals or got it from a book. I have a number of references including Kraus' "Antennas", and also a text by Stutzman and Thiel, etc., so may try to replicate your methods later.

Using NEC2 I set up a 40 m dipole in free space, and fed it with 1 kW (for nice large current values in the loop). I placed a square loop, 0.5 m per side and 40 m distance. with the plane of the loop parallel to the axis of the dipole, also two sides parallel to the dipole. The dipole uses perfect conductors, and copper for the loop, with 0.7 mm radius conductors. The segmentation of the loop is significantly different than the dipole, but thought it not important because of the large separation of the two antennas. In the loop I am very close to the minimum segmentation allowed in NEC at 0.001 wavelengths per segment -- i.e. 11 segments per side. One segment, near a corner, has a 50 ohm load.

As is easily verified, the field strength from the dipole, at 40 m, is 5.5V/m (RMS). According to NEC the current in the loop varies from segment to segment, ranging from 0.1 mA (peak), to 0.3 mA (peak). I took the average (0.191 mA peak), and computed the RMS average current in the loop. Multiplying by 50 ohms, gives me an output voltage 6.76 mV RMS.

The antenna factor is therefore 58 dB. Wonder if anybody has any idea where the error lies. I have copied the code below.

Regards,

Frank

NEC Code:

```
CM Dipole antenna
CE
GW 1 41 0 0 0 20.25 0 0 0.0026706
GW 2 11 10 40 0.25 10.5 40 0.25 0.0007
GW 3 11 10.5 40 0.25 10.5 40 -0.25 0.0007
GW 4 11 10.5 40 -0.25 10 40 -0.25 0.0007
GW 5 11 10 40 -0.25 10 40 0.25 0.0007
GS 0 0 1
GE 0
EX 0 1 21 0 379.63 0.00000
LD 4 5 1 1 50 0
LD 5 2 1 11 5.8001E7
LD 5 3 1 11 5.8001E7
LD 5 4 1 11 5.8001E7
LD 5 5 1 11 5.8001E7
FR 0 12 0 0 7.15 0.0025
RP 0 181 1 1000 -90 90 1 1
EN
```

1506. Re: roof or ground 'height'?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 22:14:18 UTC
From: ml <m@di.net>
Message-ID: <m-8C8A75.18141319062005@news.verizon.net>
Source record: 74622

In article <3debb19faem6brd3q6qbg025kgsnue4tp8@4ax.com>,
Richard Clark <kb7qhc@comcast.net> wrote:

> On Sun, 19 Jun 2005 18:11:20 GMT, ml <m@di.net> wrote:
> >antenna 'rf' wise, i my antenna height measurement that i use, above
> >the ground or roof surface??
>
> Hi Myles,
>
> Both. For purposes of feeding it, the proximity of other conductors
> and sources of loss, the antenna is as close as that 20' you offer.
> On the other hand, for purposes of propagation, your antenna will act
> like it is elevated 175'.
>
> Your experience, compared to others, will fall somewhere in between.
> Personally, I would think you have a very nice situation. If you seek
> to improve it, it would only be in shades of a degree, not in leaps
> nor bounds.
>
> 73's
> Richard Clark, KB7QHC

dear Richard

thanks very much you set me straight.

I do ponder what i'd have to do (antenna wise) to get a significant
order of magnatude like perhas 200% ie 6db?

i guess going from dipole to a large beam would be significant in
comparasion

but what do you do when you want a bit more than a typical single beam
gives you? stack/co phase 2???

(naturally i am not counting amps of anykind here)

thanks all

and Rich , thanks

m

1507. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-19 23:15:40 UTC
From: Owen <none@no.where>
Message-ID: <w0nte.23170$F7.10640@news-server.bigpond.net.au>
Source record: 74623

Reg Edwards wrote:
> Owen,
> I gather you are interested in measurents only in the 40m band which
> makes life easier. The photograph of the loop and line makes it more
> clear what you are up to.

Not necessarily, but the exploration of the loop has been done on lower HF, and it happens that the BPL system that I have available for measurement radiates on 7 and 10MHz in low HF.

7MHz is not the only band affected, these guys will use every scratch of spectrum and power to maximise the speed / reach profile of their service.

...

> Your calculations take the loop/line mismatch loss into account. Its
> only a few dB.
>
> Incidentally, have you considered what effects increasing the number
> of turns to 2 or 3 would have? They MIGHT possibly be beneficial. It
> needs more calculations. As with just increasing the size of the loop
> which almost certainly would be beneficial.
>

I did.

It obviously increases the open circuit voltage. It also increases the loop inductance, and this almost completely offsets the increased open circuit voltage in terms of power delivered to the receiver input depending on frequency). Calculation of the wire loss resistance becomes more complex due to proximity effect, but that doesn't matter too much because the dominant factor in determining the source Z is the inductance of the loop, and even if tuned, the resistance is small wrt the load.

Ofcom had the answer to measurements down to ambient noise level, the antenna is shown in their recent reports on BPL radiation measurements. However, it isn't a very portable answer.

As I said in an earlier post, an active loop and a portable short dipole (such as the Buddipole) are avenues for investigation.

(A tuned loop obviously helps, but with the single frequency / calibration issues.)

> You have set yourself a most interesting and useful task. I wish you
> well with it.

Thanks Reg, and I appreciate your help with the task in this discussion / review. Wish Amateur Radio well with it, because BPL is the greatest risk to HF Amateur Radio that we have known. I don't say that from having read or heard somone else's reports, I have stood on the streets where BPL is deployed and measured it.

Though my measurement methodology has progressed from "calibrated S-meter" readings, the calibrated S-meter is a reality check, and when I last visited the trial site, set the receiver up and waved the 0.5m sq loop (~-50dBi) about to see if they were still "on air", S-meter readings of 5uV says they are, and it is seriously high in level.

Ofcom's recent reports are a great read, and it looks like they are taking a sane approach at this point, differently to the fervour for BPL expressed by Powell when at the FCC.

I better stop at that, I am getting OT!

Owen

1508. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 00:47:26 UTC
From: radio913@aol.com
Message-ID: <1119228446.527488.201950@o13g2000cwo.googlegroups.com>
Source record: 74624

Ian White GM3SEK wrote:
> >> There was a big discussion about this last year, and somebody posted that
> >> the ARRL was going to eliminate the conjugate reference.
> >>
> >> Tam/WB2TT
> >>
> >
> >
> > Going to? It says 2000 on that ARRL Handbook!
> >
> > They are NOT going to eliminate the conjugate reference, because
> >it's correct.
> >
> Point of fact: in the current 20th edition, dated 2003, it has gone.
>
> It had been correct; then they incorrectly revised it; now it has been
> corrected again.
>

Point of fact: If Zo is purely real, then
Zo*=Zo, and so both forms are correct in this case.

S.

1509. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 00:51:45 UTC
From: radio913@aol.com
Message-ID: <1119228705.623409.54780@g14g2000cwa.googlegroups.com>
Source record: 74625

Cecil Moore wrote:
> radio913@aol.com wrote:
> > However, in almost all practical calculations,
> > Zo is purely real, ...
>
> Nope, "purely real" requires a special expensive line. I
> forget what they call it. Ordinary feedline is not purely
> real however close it might be.
> --

I don't care how much it costs, your line
is NEVER going to be 100% purely real! There
is always a gap between mathematical ideals
and reality.

So i totally agree with you.

But for most practical calculations,
Zo can be considered purely real, and your
calculations will be close.

S.

1510. Re: roof or ground 'height'?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 00:59:51 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <GP-dnXZ_9a63iCvfRVn-rA@comcast.com>
Source record: 74626

"ml" <m@di.net> wrote in message
news:m-8C8A75.18141319062005@news.verizon.net...
> In article <3debb19faem6brd3q6qbg025kgsnue4tp8@4ax.com>,
> Richard Clark <kb7qhc@comcast.net> wrote:
>
> > On Sun, 19 Jun 2005 18:11:20 GMT, ml <m@di.net> wrote:
> > >antenna 'rf' wise, i my antenna height measurement that i use, above
> > >the ground or roof surface??
> >
> > Hi Myles,
> >
> > Both. For purposes of feeding it, the proximity of other conductors
> > and sources of loss, the antenna is as close as that 20' you offer.
> > On the other hand, for purposes of propagation, your antenna will act
> > like it is elevated 175'.
> >
> > Your experience, compared to others, will fall somewhere in between.
> > Personally, I would think you have a very nice situation. If you seek
> > to improve it, it would only be in shades of a degree, not in leaps
> > nor bounds.
> >
> > 73's
> > Richard Clark, KB7QHC
>
> dear Richard
>
>
> thanks very much you set me straight.
>
> I do ponder what i'd have to do (antenna wise) to get a significant
> order of magnatude like perhas 200% ie 6db?
>
> i guess going from dipole to a large beam would be significant in
> comparasion
>
> but what do you do when you want a bit more than a typical single beam
> gives you? stack/co phase 2???
>
> (naturally i am not counting amps of anykind here)
>
> thanks all
>
>
> and Rich , thanks

>
> m

If you haven't already, you might want to check out what's happening at Spiderbeam http://www.spiderbeam.net/ - - the construction techniques they use appear to hold considerable promise. I'm particularly impressed with the idea of incorporating a 40 meter dipole into their multiband Yagi array, using a Delta-match fed wire connecting the 20m reflector and director together so they act as capacitive hats to bring that short wire to resonance at 7.05MHz. The details of the 40m modification are discussed in the Spiderbeam Yahoo! group.

Chuck W6PKP

1511. Re: Antenna Impedance Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 03:02:59 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Hlqte.6790$uS2.2313@fe03.lga>
Source record: 74627

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d94c4r$rc5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Walt, did you measure ground conductivity and permittivity?
>
> Or did you forget like messrs B, L & E.
> ----
> Reg.
>
Hi Reg, it appears you have a copy of the B, L & E's IRE paper reporting their ground radial experiments, "Ground Systems as a Factor in Antenna Efficiency," that the FCC finalized on in the radial requirements for AM BC stations. Their paper was dated June 1937. I knew B (George H. Brown) very well, as he was formerly the chief engineer of the antenna lab of the RCA Laboratories. I also knew L, (Bob Lewis, W2EBS) as well, but only as a ham, because he left the RCA Labs before I worked there. I worked alongside E, (Jess Epstein) for many years at the Labs.

Jess told me why their experiments included 113 radials. It seems that when Jess had plowed in 100 radials he asked Brown what he should do with the wire remaining in the spool. Brown said, "plow it in." There was just enough wire left for thirteen more radials--hence the 113, as reported in their IRE paper.

I attended a radio club meeting where Bob Lewis was a member on a night when Jerry Sevick, W2FMI, was the guest speaker. Jerry was explaining how radials worked. In his blackboard diagram he included concentric wires connected to each radial at various intervals away from the vertical radiator, including at the ends of each radial. I asked Jerry what those concentric wires were for, but he had no answer. Bob Lewis was in his audience, so I then asked Jerry if he knew about the Brown, Lewis & Epstein experiment concerning ground radials. Jerry said, yes, he did. I then asked him if he'd like to meet Bob. He said he certainly would when the time was right. So I told Jerry the time was right right now, and asked Bob to stand. Bob then took the stage, and much to Jerry's chagrin, Bob told the group how radials really worked.

At the end of the meeting a photographer took a picture of Bob, Jerry, and me, that was published in QST sometime in the 60s or 70s, I've forgotten just which issue.

Walt, W2DU

1512. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 03:25:51 UTC
From: nm5k@wt.net
Message-ID: <1119237951.203818.84130@g44g2000cwa.googlegroups.com>
Source record: 74628

I never tried a ball. But I know on 160m mobile, corona is
very common if you run the juice. The ones I talked to used
metal balls for that...I didn't know a non conductive ball would
work...Maybe it will, but I never tried it...I used to talk to a guy
across town that worked 160m mobile every morning. He ran a
KW, and he used to say his antenna glowed a kind of blue color
most of the time around the top. MK

1513. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 04:41:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b64a0a$1_1@spool9-west.superfeed.net>
Source record: 74629

radio913@aol.com wrote:
> I don't care how much it costs, your line
> is NEVER going to be 100% purely real! There
> is always a gap between mathematical ideals
> and reality.

Therefore, Z0 will never equal Z0*?

One can purchase test leads guaranteed within a certain
percentage at a certain frequency. I believe it occurs
when G/C = R/L or some such.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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1514. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 04:42:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b64a47$1_1@spool9-west.superfeed.net>
Source record: 74630

radio913@aol.com wrote:
> I don't care how much it costs, your line
> is NEVER going to be 100% purely real! There
> is always a gap between mathematical ideals
> and reality.

Therefore, Z0 will never equal Z0*?

One can purchase test leads guaranteed within a certain
percentage at a certain frequency. I believe it occurs
when G/C = R/L or some such.
--
73, Cecil http://www.qsl.net/w5dxp

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1515. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 04:44:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b64ab5$1_1@spool9-west.superfeed.net>
Source record: 74631

radio913@aol.com wrote:
> I don't care how much it costs, your line
> is NEVER going to be 100% purely real! There
> is always a gap between mathematical ideals
> and reality.

Therefore, Z0 will never equal Z0*?

One can purchase test leads guaranteed within a certain
percentage at a certain frequency. I believe it occurs
when G/C = R/L or some such.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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1516. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 07:25:56 UTC
From: richardharrison@webtv.net
Message-ID: <16275-42B66F84-676@storefull-3252.bay.webtv.net>
Source record: 74632

Cecil, W5DXP, quoting others, wrote:
"The reflected power wave doesn`t travel from the load back toward the source and the extra 4.17 watts in the forward wave doesn`t travel from the match point back toward the load."

Users of the Bird and Similar wattmeters know that is what they see. Source and load power is the forward power minus the reflercted power.

Zo of the coax enforces its volt to amp ratio on both the incident and reflected waves. Reflected power is again reflected at the match point because the matched source sees no reflection. That`s the point of producing a match in the load.

Best regards, Richard Harrison, KB5WZI

1517. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 07:51:49 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <RAute.1680$gt5.959@fed1read02>
Source record: 74633

"Owen" <none@no.where> wrote in message
news:rk4te.22197$F7.9755@news-server.bigpond.net.au...
> Ed Price wrote:
>
>> Looks pretty decent, until the very end. Antenna Factor (AF) is the ratio
>> of the field strength voltage to the output VOLTAGE, not power, although
>> you did get the numbers right.
>
> I have looked at it and I can't see that I said "power" in relation to
> Antenna Factor. Perhaps I am blind. (You didn't confuse the units dB/m (dB
> per meter) with dBm (db wrt 1mW) did you?)
>
> Owen

Yep, that's exactly what I did. Maybe I was looking at your units too fast
and didn't see that "/" in there.

--
Ed
WB6WSN
El Cajon, CA USA

1518. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 07:55:35 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <nEute.1681$gt5.1550@fed1read02>
Source record: 74634

"Owen" <none@no.where> wrote in message
news:rk4te.22197$F7.9755@news-server.bigpond.net.au...
> Ed Price wrote:
>
>> So practically, since the average ham has a receiver with a sensitivity
>> in the order of a microvolt, then your antenna limits your minimum
>> discernable signal level to around 65 uV/m. Maybe 100 uV/m to be on the
>> safe side.
>
> In fact, the technique calls for measuring signals on the rx from the
> noise floor to about 20dB above it. The noise floor for receivers today is
> typically -135dBm.

> No, the technique does not use an S-meter. In a nutshell, it uses Ed
> Hare's (W1RFI) technique for calibrating the noise floor of the receiver,
> using an external attenuator to keep the rx input below the AGC threshold,
> and measuring the audio output with signal and the audio output from rx
> internal noise as inputs to a calculation of the input signal power.
> Applying external attenuator losses, feedline losses and antenna factor
> allows calculation of field strength.

> Owen

IS Hare's technique published somewhere on the web?

--
Ed
WB6WSN
El Cajon, CA USA

1519. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:00:15 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Llute.1682$gt5.968@fed1read02>
Source record: 74636

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d92vqvbah1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> One of the most serious sources of error will be pick-up on the long
> line between the small loop and the receiver. With a coax line there
> will be a greater signal pick up on the coax braid than there is in
> the loop. They are both located in the same field.
>
> So best to use very low impedance balanced pair line such as 50 ohms
> perhaps with a screening braid. A good choke balun or a 1-to-1 wound
> transformer would be advisable between the line and receiver input.
>
> Also, depending on frequency, length and impedances, there may be
> standing waves on the line which could make a mess of your
> calculations.
>
> A change in line length is a good way to check for errors of this
> sort.

Wouldn't it be better to use a pre-amp at the loop feed? The gain of the
pre-amp could make line pickup a negligible effect, and the pre-amp would
match the coax very well.

--
Ed
WB6WSN
El Cajon, CA USA

1520. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:00:51 UTC
From: radio913@aol.com
Message-ID: <1119254451.132103.274560@g14g2000cwa.googlegroups.com>
Source record: 74635

Cecil Moore wrote:
> radio913@aol.com wrote:
> > I don't care how much it costs, your line
> > is NEVER going to be 100% purely real! There
> > is always a gap between mathematical ideals
> > and reality.
>
> Therefore, Z0 will never equal Z0*?
>

Never exactly, but they will be damn close
most of the time, unless your coax is really cheap/bad.

> One can purchase test leads guaranteed within a certain
> percentage at a certain frequency. I believe it occurs
> when G/C = R/L or some such.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

If Zo=50+j0.000000000001, then it's
close enough!

S.

1521. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:05:26 UTC
From: Adrian Scripca YO8SSW <benishor@gmail.com>
Message-ID: <1119254726.156212.81190@g44g2000cwa.googlegroups.com>
Source record: 74637

Hi Reg and thank you for your advices,

I changed the coupling loop to a length of self suporting wire as you suggested, I turned the trcv on and surprise : it was alive. Tweaked it for a maximum noise on receive.

SWR was/is high so I had to add an antenna tuner. nevertheless, on 14Mhz, cw portion I heard G, ON, LY, LZ, SV, UA, RV, RW, UR, EA, JA, JS.
I even managed to work about all of them. I got kind of weak reports but it's a start. If only I could tweak it so that I get SWR down without the tuner.

> How do you ensure that both are tuned to the same frequency?

I don't. I have no rig for that. I go for the max noise on receive.

73 de YO8SSW

1522. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:12:45 UTC
From: radio913@aol.com
Message-ID: <1119255165.740837.232590@g43g2000cwa.googlegroups.com>
Source record: 74638

Tom Donaly wrote:
> Tim Wescott wrote:
> > Cecil Moore wrote:
> >
> >> It has been said that the energy stored in the standing waves
> >> of a transmission line just "sloshes" around.
> >>
> >> We can demonstrate standing waves using a laser beam normal to
> >> a perfect mirror. There are points of maximum irradiance and
> >> points of minimum irradiance in the standing waves. So does
> >> the EM energy in the standing waves of light in free space
> >> "slosh" around like the energy in the standing waves in a
> >> transmission line?
> >
> >
> > Yes -- there's energy actively bouncing around in that there beam; if
> > you could reduce it down to one laser burst that was shorter than the
> > distance between the laser and the mirror you'd (in theory at least) be
> > able to see it.
> >
> >> If so, where does the inductance and
> >> capacitance in free space come from to generate that 377 ohms
> >> of characteristic impedance?
> >
> >
> > They don't. The behavior of EM radiation in free space is described by
> > Maxwell's laws. The 377 ohms of characteristic impedance comes from the
> > permittivity and permiability of free space but inductance and
> > capacitance are only meaningful concepts if you have conductors in your
> > model.
> >
> >> If not, then why do the EM waves
> >> in a transmission line behave differently than the EM waves
> >> in free space?
> >
> >
> > Because they're bounded by conductors.
> >
> >> What different laws of physics do photonic waves
> >> in transmission lines obey than do photonic waves in free
> >> space?
> >
> >
> > None. They obey Maxwell's laws.

> >
> >> Of the E-field and H-fields rules for EM waves in free
> >> space, which of those rules are violated by EM waves in a
> >> transmission line?
> >
> >
> > None.
> >
> >> Is there one set of Maxwell's equations for
> >> free space and a separate set for transmission lines?
> >
> >
> > No, just different boundary conditions to start.
> >
> > All this is covered in a good college E&M course. I wish I had an E&M
> > book that I could recommend for self-study, but I don't. Mine is
> > "Elements of Engineering Electromagnetics", but I took a course. I
> > don't think I would have been able to just pick up the book and learn it
> > from there.
> >
> >> Did
> >> Maxwell ever mention the scientific concept of "sloshing"?
> >
> >
> > Who knows? And was he talking about light waves or a wee dram of
> > whiskey at the end of the day?
> >
> > As hard as it may be to believe for anyone who's gone through an E&M
> > course the original form of Maxwell's equations were more difficult to
> > comprehend than the way there're usually presented now -- the vector
> > notation that is currently used either wasn't around then or wasn't in
> > widespread use.
> >
> > --
> > Tim Wescott
> > Wescott Design Services
> > http://www.wescottdesign.com
>
> Hi Tim,
> Cecil is just trying to crowd Roy into slapping leather
> (figuratively speaking). Cecil thinks he already knows the
> answer to all these questions, so there's no
> point in answering him.

Indeed. It appears things have not changed
much since last i checked here! hehe!

I'd really like to hear Cecil's "answers"
to these questions!

He'll be at it for awhile, until he
> realizes rhetorical confrontation won't work.
> 73,
> Tom Donaly, KA6RUH

Depends on what your goals are...

Slick

1523. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:13:07 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <PUute.1683$gt5.1602@fed1read02>
Source record: 74639

"Owen" <none@no.where> wrote in message
news:md7te.22394$F7.13098@news-server.bigpond.net.au...
> Frank wrote:
>
>> In the BPL report at
>> http://www.ofcom.org.uk/research/technology/cet/powerline/ascom.pdf
>> I noticed the system noise floor at about 10 dBuV/m (in 9 kHz). For the
>> tests they used an active bi-conical antenna. (By my calculations 10
>> dBuV/m is about 9 uV(2.5 kHz BW) from a 40 m dipole at 7 MHz.) In the
>> previously
>
> Yes, Fig 8 shows about 10dBuV/m in 9KHz which interpolates to 5dBuV/m in
> 3KHz, and their measurements used a peak detector. On white noise, the QP
> value would probably be 2 to 3dB lower.
>
> I have made a large number of measurements at my home QTH (in a
> residential neighbourhoos) using a half wave dipole and assuming an
> average gain of -1.2dBi or an AF of -11.6dB/m and I regularly get ambient
> noise readings down to around 0 to 3dBuV/m QP in 3KHz or extrapolated to
> 9KHz BW, 5 to 8dBuV/m QP. Ambient noise is probably lower than indicated
> by ITU P372-8!
>
>> mentioned report most of the BPL signals -- even at 1 meter from the
>> source -- is < 60 dBuV/m. It seems your system with the loop will be
>> much less sensitive at about 100 uV/m (+40 dBuV/m).
>>
>
> See my response to Reg re the noise floor for the setup, I make it around
> 8dbuV/m or 2.5uV/m. I don't pretend it can measure ambient noise, but it
> can and has measured BPL interference at 40dBuV/m to 70dBuV/m.

What detector do you think should be used to evaluate the interference
potential of BPL?

I had thought that the QP detector was designed to the "annoyance" effect to
AM or SSB modulation. CISPR has standardized this detector, and it's been
adopted for many legal compliance standards world-wide. Yet the USA &
British military insist on use of a Peak detector. Perhaps a dual level is
needed, with a QP value for comparison of harm to the older analog
modulation techniques, and a Peak value, for comparison of harm to digital
modulation techniques.

--
Ed
WB6WSN

El Cajon, CA USA

1524. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:27:06 UTC
From: Owen <none@no.where>
Message-ID: <u5vte.23837$F7.11081@news-server.bigpond.net.au>
Source record: 74640

Ed Price wrote:
> "Owen" <none@no.where> wrote in message
> news:rk4te.22197$F7.9755@news-server.bigpond.net.au...
>
>>Ed Price wrote:
>>
>>
>>>So practically, since the average ham has a receiver with a sensitivity
>>>in the order of a microvolt, then your antenna limits your minimum
>>>discernable signal level to around 65 uV/m. Maybe 100 uV/m to be on the
>>>safe side.
>>
>>In fact, the technique calls for measuring signals on the rx from the
>>noise floor to about 20dB above it. The noise floor for receivers today is
>>typically -135dBm.
>
>
>>No, the technique does not use an S-meter. In a nutshell, it uses Ed
>>Hare's (W1RFI) technique for calibrating the noise floor of the receiver,
>>using an external attenuator to keep the rx input below the AGC threshold,
>>and measuring the audio output with signal and the audio output from rx
>>internal noise as inputs to a calculation of the input signal power.
>>Applying external attenuator losses, feedline losses and antenna factor
>>allows calculation of field strength.
>
>
>>Owen
>
>
> IS Hare's technique published somewhere on the web?
>

Yes it is, see http://www.arrl.org/~ehare/aria/ARIA_MANUAL_TESTING.pdf .

That paper outlines the principle of using the known rx noise floor as a
baseline for measurements. I have developed a piece of software for
making the associated audio power measurements and automating the
calculation / documentation process.

Thanks for taking the time to review the loop model, it is appreciated.

Owen

PS: I saw your other response and Richard's suggestion that I use the
units capability of Mathcad. Sometimes the unit capability gets in the
way of readability, for instance I think you could not take the log of E

in volts / meter divided by V in volts and get dBV/m, I think you would need to split E into two variables (say E' and l) and say AF=20*log(E'/V)/l. Additionally, you can spend more time trying to get the units to work, so that they don't collapse to fundamental units of MLT etc, than solving the numerical side of the problem.

1525. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 08:30:15 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <74GUTROX6ntCFAeG@ifwtech.co.uk>
Source record: 74641

Richard Harrison wrote:
>
>Users of the Bird and Similar wattmeters know that is what they see.
>Source and load power is the forward power minus the reflercted power.
>
But that's only what is printed on the meter scale. It doesn't make the "reflected power" real.

For the (n+1)th time: the Bird so-called "wattmeter" does NOT sense forward and reflected power. It only senses RF voltage and current on the line. The meter scale calibration is a mathematical operation that depends on a lot of assumptions... most notably the assumption that "reflected power" has some physical reality.

I am genuinely open-minded about that debate - which makes the all the more determined to be ruthless about bogus arguments on either side.

And the most bogus argument of all is: "Users of the Bird and Similar wattmeters know that is what they see."

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1526. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 10:15:18 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <nHwte.1699$gt5.1669@fed1read02>
Source record: 74642

"Owen" <none@no.where> wrote in message
news:u5vte.23837$F7.11081@news-server.bigpond.net.au...
> Ed Price wrote:
>> "Owen" <none@no.where> wrote in message
>> news:rk4te.22197$F7.9755@news-server.bigpond.net.au...
>>
>>>Ed Price wrote:
>>>
>>>
>>>>So practically, since the average ham has a receiver with a sensitivity
>>>>in the order of a microvolt, then your antenna limits your minimum
>>>>discernable signal level to around 65 uV/m. Maybe 100 uV/m to be on the
>>>>safe side.
>>>
>>>In fact, the technique calls for measuring signals on the rx from the
>>>noise floor to about 20dB above it. The noise floor for receivers today
>>>is typically -135dBm.
>>
>>
>>>No, the technique does not use an S-meter. In a nutshell, it uses Ed
>>>Hare's (W1RFI) technique for calibrating the noise floor of the receiver,
>>>using an external attenuator to keep the rx input below the AGC
>>>threshold, and measuring the audio output with signal and the audio
>>>output from rx internal noise as inputs to a calculation of the input
>>>signal power. Applying external attenuator losses, feedline losses and
>>>antenna factor allows calculation of field strength.
>>
>>
>>>Owen
>>
>>
>> IS Hare's technique published somewhere on the web?
>>
>
> Yes it is, see http://www.arrl.org/~ehare/aria/ARIA_MANUAL_TESTING.pdf .
>
> That paper outlines the principle of using the known rx noise floor as a
> baseline for measurements. I have developed a piece of software for making
> the associated audio power measurements and automating the calculation /
> documentation process.
>
> Thanks for taking the time to review the loop model, it is appreciated.
>
> Owen

Thanks; looks like I have a lot of reading to do!

--
Ed
WB6WSN
El Cajon, CA USA

1527. How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 10:49:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9670i$9kd$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74643

It is fairly easy to measure soil conductivity at DC and power frequencies. See program EARTHRES. Such measurement values apply up to a few hundred kHz.

A few years back I became curious about what happens to conductivity at HF. And at what frequencies does soil permittivity begin to matter. Most amateur activity is at HF and above. Yet, without even thimking about it, we persist in plugging in power frequency values into formulae and computer programs.

A volume of soil between a pair of electrodes behaves as a resistance in parallel with a capacitor.

So this is what I did -

1. Obtain a 16-inch length of galvanised steel tube, 5 inches in diameter. (Mine was industrial ventilation duct)

2. Block off one end of the tube with a rigid disk of plastic insulating material.

3. Obtain a 17-inch length of copper water pipe, diameter = 0.6 inches.

4. Locate the water pipe in the centre of the tube, resting on the plastic disk at the bottom.

5. You now have a coaxial structure of accurately known dimensions. When empty, Zo = 128 ohms. 1/4-wave at 191 MHz

6. Obtain a mixed sample of soil from various places in your garden under your antenna.

7. Fill the galvanised tube in easy stages with garden soil. At each stage compress and pack-down the soil to about the same density as it was in your garden. Make sure the soil is in contact with the inside surface of the tube.

8. Cover the top of the soil in the tube with a flat disk, with a hole in the middle, to discourage evaporation of moisture and drying out of the soil.

9. You now have 16-inch length of transmission line on which you can make HF impedance measurements using instruments as simple as hand-held antenna analysers. Resistance measurements at 50 or 60 Hz can be obtained from volts/milliamps. Although connecting leads can be kept very short it is advisable to correct measurements for lead-length above 10 MHz. Measurements were made up to VHF.

10. Using classical transmission line formulae in reverse, the values of line conductance G, capacitance C and hence permittivity K of the "insulating" material, i.e., the soil, can be calculated.

11. Measurements are of input impedance of the line with the other end open cicuit. The basic equation is Zin = Zo*Coth(A + jB) where A is line attenuation and B is line phase shift. At the lower frequencies the line is very short and G and Capacitance and then K, can be calculated directly from measurements and line dimsnsions.

12. A clinical thermometer can be inserted deep in the soil. If the test cylinder is too large to fit in the domestic fridge, by leaving the test sample out of doors overnight in winter the effects of temperature can be observed as the sample slowly warms up from freezing. Soil has a high negative temperature coefficient of resistance. Resistance increases as temperature decreases. My garden soil is roughly -2 percent per degree C at 20 degrees C.

13. I have made HF measurements in other shaped containers, usually smaller and plastic, with copper sheets for electrodes. Also in the garden itself between radials and arrays of relatively short rods. Any sort of measurements are more useful than none.

Some people say the only way to deternine soil characteristics is to construct a 1/4-wave vertical antenna, feed it with 50 Kwatt at 500 KHz and measure field strength at 1 mile intervals for 100 miles. And then do some calculations. Don't you believe it!

Reg G4FGQ

1528. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 11:34:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b6aa9f$1_1@spool9-west.superfeed.net>
Source record: 74644

Ian White GM3SEK wrote:
> But that's only what is printed on the meter scale. It doesn't make the
> "reflected power" real.
>
> I am genuinely open-minded about that debate - which makes the all the
> more determined to be ruthless about bogus arguments on either side.

Ian, correct me if I'm wrong, but I infer that you are biased
toward the "no reflected energy waves" side. That bias could be
based on perceived knowledge.

Seems to me, some people are begging the question. They assume
there is no energy in reflected waves and call what the other
side says, "gobbleygook", even when presented in scientific
terms. I think we all understand the concepts behind net
energy. What is in dispute is the next lower layer of dynamic
energy movement in both directions at the same time during
steady-state.

So would you explain what happens to the reflections of a laser
beam when aimed at a perfect mirror in free space. Offset the
laser beam slightly from normal incidence to start with and
observe the reflections with your naked eye. Then bring the
beam to 90 degree incidence with the mirror. You can no
longer see the reflections but now you can detect the
superposition of the forward and reflected waves through
interference "rings" or loops with an intensity maximum
occuring every half wavelength and an intensity minimum
occuring every half wavelength in between.

Where is the EM wave energy just sloshing around and not
traveling forward and rearward at the speed of light?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1529. Printed(Copper Strip) GSM and GPS Antenna on same PCB?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 11:51:40 UTC
From: pfitz <padraigfitz@nospam.eircom.net>
Message-ID: <1119268304.a7ae9dcf22f922f21a424420c2d8a58a@teranews>
Source record: 74645

Does anyone know if it would be possible to do this?

How small could the PCB be? What is the minimum size for a pcb printed GSM antenna?

Thanks very much

pfitz

1530. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 12:44:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d96dnm$8vl$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74646

"Adrian Scripca YO8SSW" <benishor@gmail.com> wrote in message
news:1119254726.156212.81190@g44g2000cwa.googlegroups.com...
> Hi Reg and thank you for your advices,
>
> I changed the coupling loop to a length of self suporting wire as
you
> suggested, I turned the trcv on and surprise : it was alive. Tweaked
it
> for a maximum noise on receive.
>
> SWR was/is high so I had to add an antenna tuner. nevertheless, on
> 14Mhz, cw portion I heard G, ON, LY, LZ, SV, UA, RV, RW, UR, EA, JA,
> JS.
> I even managed to work about all of them. I got kind of weak reports
> but it's a start. If only I could tweak it so that I get SWR down
> without the tuner.
>
> > How do you ensure that both are tuned to the same frequency?
>
> I don't. I have no rig for that. I go for the max noise on receive.
>
> 73 de YO8SSW

==========
Hi Adrian,

Pleased to hear you are now working OK

The correct way to reduce SWR is to adjust the diameter of the
coupling loop.
There's no way to tell which way to adjust the loop except to try it.
It may not be the best setting for ALL bands.
But it IS better to do without the tuner if you can manage it.
Adjust the loop diameter for minimum SWR on your favourite band and it
will also be fairly close on the other bands.

It will be easier to change the diameter of the coupling loop now that
it is just a simple length of wire.

Now that you can hear some noise, the correct way to set the loop and
receiver both to the same frequency is to VERY SLOWLY, vary the loop
tuning capacitor for maximum noise in the receiver.

73, Reg, G4FGQ

1531. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 12:46:56 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <TCD+N0VArrtCFA4I@ifwtech.co.uk>
Source record: 74647

Cecil Moore wrote:
>> But that's only what is printed on the meter scale. It doesn't make
>>the "reflected power" real.
>> I am genuinely open-minded about that debate - which makes the all
>>the more determined to be ruthless about bogus arguments on either
>>side.
>
>Ian, correct me if I'm wrong, but I infer that you are biased
>toward the "no reflected energy waves" side. That bias could be
>based on perceived knowledge.
>
I am trying very hard not to be biased about the actual problem -
but I am very much against your methods of debate.

Why should anyone consent to follow you into the realms of optics and laser physics, merely because that's where you want to go? Stand your ground right here on the log, Cecil, and talk strictly and exclusively about RF transmission lines.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1532. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 13:09:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d96f6m$cs9$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74648

> Wouldn't it be better to use a pre-amp at the loop feed? The gain of
the
> pre-amp could make line pickup a negligible effect, and the pre-amp
would
> match the coax very well.
>
> --
> Ed
> WB6WSN
> El Cajon, CA USA
>
It might be. But the extra complication of powering an amplifier would bring another load of things to worry about. Simplicity is a wonderful thing.

By far the best way of improving performanc and reducing possible measuring errors, is to increase size of loop relative to length of feedline. Doubling dimensions would make a world of difference.

I suppose he had a good reason for choosing a 1/2-metre square loop.

Reg, G4FGQ

1533. Re: Antenna Impedance Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 14:27:00 UTC
From: EXDAXI43@YAHOO.COM
Message-ID: <1119277620.751162.162950@g43g2000cwa.googlegroups.com>
Source record: 74649

hi Walt, I'd like a copy of your measurements..73 Leon W5GY

Walter Maxwell wrote:
> Quite some time ago, for the purpose of determining the effect of ground on the
> terminal impedance of a dipole, I measured the terminal impedance of a
> center-fed dipole, length 32.33 ft. at frequencies every 50 KHz from 14.0 to
> 15.0 MHz, at heights of 0, 1, 2, 3, 4, 5, 8, 10, 12, 14, 16, and 22 ft above
> ground. A total of 252 individual measurements.
>
> The equipment used for the measurements were a calibrated 40 ft RG-58 feedline,
> [calibrated for electrical length and attenuation at frequencies f(x)], a balun
> consisting of 100 #73 beads over a 2 ft length of RG-303 coax (included in the
> feedline calibration), a General Radio GR-1606-A RF impedance bridge, a Ferris
> Microvolter 70B signal generator, and a Collins 75A-4 receiver.
>
> The input impedances appearing at the input of the feedline were then
> transformed using the W2DU software program 'LINTRNSA' to obtain the impedances
> appearing at the dipole terminals. (LINTRNSA appears in both the 1st and 2nd
> editions of Reflections.)
>
> The total data includes the R and X components of the impedances appearing at
> the input of the feedline, the values of rho and swr at both the feedline input
> and at the dipole terminals, and the R and X components of the dipole terminal
> impedances. A total of 2016 data points.
>
> All of the data listed above is in tabular form, ready for putting into a PDF
> file for use by anyone who is interested in reviewing the data. The data is
> presented in the same format as in Reflections, Tables 15-4, 15-5, 20-1, 20-2,
> etc.
>
> If anyone is interested I'll make the PDF file, and I'll be pleased to send it
> to all who would like a copy. Just give me a jingle (via email, that is at
> walt@w2du.com.
>
> Walt

1534. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 14:56:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <26mdb19iuhp5tb7jlj47u31u99f1luqkb1@4ax.com>
Source record: 74650

On 20 Jun 2005 01:00:51 -0700, radio913@aol.com wrote:
> If Zo=50+j0.000000000001,
And it is not
> then it's close enough!
hence it follows from this logic, it is not close enough.

73's
Richard Clark, KB7QHC

1535. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 15:13:02 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <42Bte.3925$Gp.1134@fe04.lga>
Source record: 74651

Hi Reg,

You've presented a very interesting way of measuring soil characteristics. When I return to Florida in November I'm going to use your method of measuring the soil underneath the dipole whose impedances I measured over the frequency range 14 to 15 MHz at various heights above ground, including one set of measurements with the dipole lying on the ground.

One of the reasons I offered to distribute the data from my measurements is to see whether anyone can deduce any soil characteristics from the changes in impedance with height. The changes are significant. For example, the terminal impedance with the dipole on the ground runs from 470 + j250 at 14 MHz to 570 + j132 at 15 MHz. The inductive reactance doesn't become capacitive until the dipole is 2 ft off the ground. In addition, except at zero height, the resistance component decreases with height, but for every height the resistance increases with frequency. Do you think any of the soil characteristics could be determined by such data?

Would you like a copy of my data, just fer the helovit?

Walt, W2DU

1536. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 15:38:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b6e3f0$1_1@spool9-west.superfeed.net>
Source record: 74652

Cecil Moore wrote:
> So would you explain what happens to the reflections of a laser
> beam when aimed at a perfect mirror in free space? Offset the
> laser beam slightly from normal incidence to start with and
> observe the reflections with your naked eye. Then bring the
> beam to 90 degree incidence with the mirror. You can no
> longer see the reflections but now you can detect the
> superposition of the forward and reflected waves through
> interference "rings" or loops with an intensity maximum
> occuring every half wavelength and an intensity minimum
> occuring every half wavelength in between.

Incidentally, there is a very good discussion of standing waves
in section 7.1.4 of "Optics", by Hecht, 4th Edition.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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1537. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 15:54:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8smdb1lgq8cbrlrjl1fqd8regcvn6681te@4ax.com>
Source record: 74653

Well Reg,

After years of harping on about your lack of a method, you rummage
this up:

On Mon, 20 Jun 2005 10:49:54 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
...
>13. I have made HF measurements in other shaped containers, usually
>smaller and plastic, with copper sheets for electrodes. Also in the
>garden itself between radials and arrays of relatively short rods.
>Any sort of measurements are more useful than none.

I don't see you asking Walt for his data to CONFIRM your method. I
don't see you doing any where near Walt's effort in building a sample
matrix of your own to test against your method to CONFIRM your method.
Validation seems to be an orphan in this discussion.

>Some people say the only way to deternine soil characteristics is to
>construct a 1/4-wave vertical antenna, feed it with 50 Kwatt at 500
>KHz and measure field strength at 1 mile intervals for 100 miles. And
>then do some calculations. Don't you believe it!

Bosh! Some people indeed. Your biology instruction in the British
school system apparently didn't teach you the difference between
people and straw-men.

The veiled suggestion of a result
>10. Using classical transmission line formulae in reverse, the values
> of line conductance G, capacitance C and hence permittivity K of the
>"insulating" material, i.e., the soil, can be calculated.
is representative of an extremely thin veneer, ignoring the bulk that
is so easily found by using the antenna in situ - the method you
dismiss as unbelievable, and what is experienced every day by
absolutely every Amateur on "Earth."

Reg, it was a nicely scripted recipe. It contains well explained
methods. It attends practical issues of measurement. However, it
wholly lacks common sense when you reject what is already observable.
What you offer is minutia of an old wife's tale.

For method, any existing antenna's free-space characteristics is far
better understood and revealed through a model than what you offer.
And that antenna's free space Z characteristics compared against
measured in situ Z performance yield the solution of what contribution
local earth has to offer. Single point measurement of contaminated
soil samples has as little chance of doing the same as trying to

measure the ocean's capacity with a teaspoon.

73's
Richard Clark, KB7QHC

1538. Re: Printed(Copper Strip) GSM and GPS Antenna on same PCB?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 15:58:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mnpdb1t5up89j82mud99h8rjk5e5tg5hkq@4ax.com>
Source record: 74654

On Mon, 20 Jun 2005 12:51:40 +0100, "pfitz"
<padraigfitz@nospam.eircom.net> wrote:

>How small could the PCB be?

I've seen them as small as 1 micron.

>What is the minimum size for a pcb printed GSM
>antenna?

Many orders of magnitude larger than 1 micron, certainly.

Your problem is defining the di-electric constant, and its
contribution to altering the size of a conventional wire antenna in
free space.

73's
Richard Clark, KB7QHC

1539. Re: Printed(Copper Strip) GSM and GPS Antenna on same PCB?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:08:29 UTC
From: pfitz <padraigfitz@nospam.eircom.net>
Message-ID: <1119283711.d0109088ab86ab1d6f6e0dbb7f59e12d@teranews>
Source record: 74655

Thanks Richard,

Do you see any reason why you couldn't have both antennas printed on the
same PCB?

rgds

pfitz
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:mnpdb1t5up89j82mud99h8rjk5e5tg5hkq@4ax.com...
> On Mon, 20 Jun 2005 12:51:40 +0100, "pfitz"
> <padraigfitz@nospam.eircom.net> wrote:
>
>>How small could the PCB be?
>
> I've seen them as small as 1 micron.
>
>>What is the minimum size for a pcb printed GSM
>>antenna?
>
> Many orders of magnitude larger than 1 micron, certainly.
>
> Your problem is defining the di-electric constant, and its
> contribution to altering the size of a conventional wire antenna in
> free space.
>
> 73's
> Richard Clark, KB7QHC

1540. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:24:22 UTC
From: radio913@aol.com
Message-ID: <1119284662.189261.219980@g43g2000cwa.googlegroups.com>
Source record: 74656

Richard Clark wrote:
> On 20 Jun 2005 01:00:51 -0700, radio913@aol.com wrote:
> > If Zo=50+j0.000000000001,
> And it is not
> > then it's close enough!
> hence it follows from this logic, it is not close enough.
>

Even if Zo=50+j2, then the VSWR will
still be very close to a 1:1 match.

You antenna boys don't build too many
power amplifiers, obviously.

Slick

1541. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:26:18 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <K6Cte.69052$HI.38643@edtnps84>
Source record: 74657

"Walter Maxwell" <walt@w2du.com> wrote in message
news:42Bte.3925$Gp.1134@fe04.lga...
> Hi Reg,
>
> You've presented a very interesting way of measuring soil characteristics.
> When I return to Florida in November I'm going to use your method of
> measuring the soil underneath the dipole whose impedances I measured over
> the frequency range 14 to 15 MHz at various heights above ground,
> including one set of measurements with the dipole lying on the ground.
>
> One of the reasons I offered to distribute the data from my measurements
> is to see whether anyone can deduce any soil characteristics from the
> changes in impedance with height. The changes are significant. For
> example, the terminal impedance with the dipole on the ground runs from
> 470 + j250 at 14 MHz to 570 + j132 at 15 MHz. The inductive reactance
> doesn't become capacitive until the dipole is 2 ft off the ground. In
> addition, except at zero height, the resistance component decreases with
> height, but for every height the resistance increases with frequency. Do
> you think any of the soil characteristics could be determined by such
> data?
>
> Would you like a copy of my data, just fer the helovit?
>
> Walt, W2DU

I was working at a company a few years ago, and they built a capacitor of two plates, about 6" on a side, and 0.25" separation. They measured the thing on a network analyzer, and then packed the dielectric with potting soil. Again measuring the results on the network analyzer they were able to deduce the conductivity and permittivity of the soil. I did not think potting soil was typical, but still an interesting experiment.

Frank

PS, Walt, I would very much like to receive your experimental dipole pdf.

1542. Re: Printed(Copper Strip) GSM and GPS Antenna on same PCB?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:28:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jcrdb1173af7jicd7k64ihjto9juo9ba92@4ax.com>
Source record: 74658

On Mon, 20 Jun 2005 17:08:29 +0100, "pfitz"
<padraigfitz@nospam.eircom.net> wrote:

>Do you see any reason why you couldn't have both antennas printed on the
>same PCB?

Hi OM,

Certainly, but not for the reason of a general prohibition. Antennas'
characteristics are always influenced by other conductors and
di-electrics in the vicinity. The influence is variable in every
novel situation. Separation of at least a quarter of the largest
wavelength (of the two) is a minimum, but is not a guarantee of
expected performance.

Modeling usually precedes implementation so as to reduce endless
rounds of discovering failure.

73's
Richard Clark, KB7QHC

1543. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:35:10 UTC
From: Owen <none@no.where>
Message-ID: <2fCte.24430$F7.4813@news-server.bigpond.net.au>
Source record: 74659

Reg Edwards wrote:

> I suppose he had a good reason for choosing a 1/2-metre square loop.

Sources suggested variously that the model's assumption of uniform
current distribution was reasonable if the side was from 0.1 to 0.03
wavelengths. I chose the go with the more conservative value at this time.

Owen

1544. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:36:28 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87r7exastv.fsf@qmc.ph.msstate.edu>
Source record: 74662

>It is fairly easy to measure soil conductivity at DC and power
>frequencies. See program EARTHRES. Such measurement values apply up to
>a few hundred kHz.
>
>A few years back I became curious about what happens to conductivity
>at HF. And at what frequencies does soil permittivity begin to matter.
>Most amateur activity is at HF and above. Yet, without even thimking
>about it, we persist in plugging in power frequency values into
>formulae and computer programs.

A simpler method that avoids all the digging and repacking of
the soil is described at

http://www.antennasbyn6lf.com/2005/05/soil_parameter_.html

I've been meaning to try it at my qth this summer.

Torsten
N4OGW/5

1545. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:40:16 UTC
From: richardharrison@webtv.net
Message-ID: <25289-42B6F170-871@storefull-3251.bay.webtv.net>
Source record: 74663

Ian, GM3SEK wrote:
"I am trying not to be biased about the actual problem - "

Open minds consider arguments.

Wave velocity = frequency x wavelength

Wave velocity in free space is 186,000 miles per second (300,000 km/sec).

Velocity of disturbances on open wire transmission lines is almost equal to that in free space.

At high radio frequencies, a wavelength may be measured in inches and centimeters. A transmission line containing a discontinuity produces a reflection from the change. As a short distance can produce a phase change of 360 degrees, the incident and reflected waves can combine to produce voltage variations along a short line length. These can be measured using simple instruments with confidence.

Circuit theory works on transmission lines because the proximity of their conductors causes an effect on one conductor to be instantaneously imposed on the other.

A transmission line cannot be analyzed as a simple series circuit because current in the wires is not everywhere the same. Volts and amps vary along the line depending upon construction, length. and load placed on the line.

The line`s resistance, inductance, conductance, and capacitance are distributed and accumulate with its length. In a wave in either direction on the line, the volts and amps at any point on the line conform to Zo but also depend on summation of the incident and reflected waves at that point. Current in the linee is not independent of the voltage.

A transmission line of any length terminated with an impedance equal to its Zo has an input impedance of Zo.

Distribution of volts and amps on lines terminated with loads other than Zo has been demonstrated countless times and is well understood. Directional couplers are capable of separating forward and reverse directions on a line, and are also well known, understood and have proved useful. The Bird wattmeter uses a directional coupler, works as advertised, and may be inserted anywhere in a 50-ohm coax line.

Best regards, Richard Harrison, KB5WZI

1546. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:41:33 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <1lCte.69055$HI.40107@edtnps84>
Source record: 74660

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d96f6m$cs9$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
>> Wouldn't it be better to use a pre-amp at the loop feed? The gain of
> the
>> pre-amp could make line pickup a negligible effect, and the pre-amp
> would
>> match the coax very well.
>>
>> --
>> Ed
>> WB6WSN
>> El Cajon, CA USA
>>
> It might be. But the extra complication of powering an amplifier would
> bring another load of things to worry about. Simplicity is a
> wonderful thing.
>
> By far the best way of improving performanc and reducing possible
> measuring errors, is to increase size of loop relative to length of
> feedline. Doubling dimensions would make a world of difference.
>
> I suppose he had a good reason for choosing a 1/2-metre square loop.
> ----
> Reg, G4FGQ

I have done some more calculations on a square loop fed at the corner. I agree with your results of input impedance. NEC 2 shows Zin at 0.388 + j109. The radiation efficiency of such a loop is 2.88%. I have made a very careful analysis of the currents in the loop when in the presence of a know E field. The current appears to vary in a sinusoidal manner around the loop, with very slight discontinuities at the corners. I assume the variation in current is due to the fact that the induced current is different on those conductors normal to the dipole axis.

Using the RMS current through the 50 ohm load resistor at the corner, and more careful calculations, I obtain an antenna factor of 60 dB, or 24 dB more than your findings. It will be interesting to find why we have such a large difference.

Regards,

Frank

1547. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:43:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4srdb1hhvo3b8jrf6i5es5bilrnf9du8cb@4ax.com>
Source record: 74661

On 20 Jun 2005 09:24:22 -0700, radio913@aol.com wrote:

> Even if Zo=50+j2,
If? Still some doubt after a plunge of 12 orders of magnitude:
>>If Zo=50+j0.000000000001
Lower precision If's still yield the same logical contradiction to:
>> then it's close enough!

> then the VSWR will still be very close to a 1:1 match.
The significant "if" is in your capacity to demonstrate
> Even if Zo=50+j2,

> You antenna boys don't build too many
>power amplifiers, obviously.

Well, looking at the group title, it does not reveal rec.*.amplifiers,
does it? And you have no credentials to speak of, unless selling to
naifs, like selling dope to school children, falls into the same proof
of authority.

73's
Richard Clark, KB7QHC

1548. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 16:55:47 UTC
From: Owen <none@no.where>
Message-ID: <nyCte.24438$F7.10045@news-server.bigpond.net.au>
Source record: 74664

Ed Price wrote:
...
> What detector do you think should be used to evaluate the interference
> potential of BPL?
>
> I had thought that the QP detector was designed to the "annoyance" effect to
> AM or SSB modulation. CISPR has standardized this detector, and it's been
> adopted for many legal compliance standards world-wide. Yet the USA &
> British military insist on use of a Peak detector. Perhaps a dual level is
> needed, with a QP value for comparison of harm to the older analog
> modulation techniques, and a Peak value, for comparison of harm to digital
> modulation techniques.
>

I understand that the CISPR 16-1 QP detector and 9KHz bandwidth are
rooted in a series of subjective listening tests done somewhere around
the 1930s.

(cue storyteller here...)

Firstly, the bandwidth survives, and you are right that it is embedded
in all sorts of EM standards.

I understand that part of the tests I referred to was to discover a
instrument response that fitted well with subjective assessment of the
impact of interference (I presume on an AM broadcast transmission).

I think EMC measurement equipment often contains some of Average, RMS,
QP and Peak detectors.

I have seen several recent reports on BPL radiation that have not used
the QP detector and the reasons have IIRC been that on a scan in xyz
planes over a wide range of frequencies, the EMC receiver is too slow
using the QP detectors.

Ed Hare suggests that the AGC on a receiver acts similarly to the QP
detector, and he is probably right. So the effect being that in an
impulse noise scenario, your receiver will reduce gain roughly in line
with the QP value (rather than say the RMS or the Peak), so it may be a
good measure of gain reduction due to interference. As to interference
with the detection process, the subjective tests to arrive at the QP
detector did not assess impact on digital modulation. It seems to me
that the impact on digital modulation / encoding systems would depend on
the peak value / repetition scenario in concert with the encoding
system's capacity for error detection / correction, but that is just me
thinking aloud.

Measurement bandwidth and extrapolation / interpolation is an issue, and possibly a bigger one than the detector response. Again there is a disconnect between 9KHz MBW (below 30MHz) for the standards and the 2KHz wide receivers in use for SSB. In my opinion, there is no better way to demonstrate the impact of interference in a 2KHz wide receiver than to measure it on a 2KHz wide receiver, so I suggest that (for us amateurs) there may be value in measuring both where possible.

Owen

1549. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 17:34:06 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <k6Dte.3951$Gp.334@fe04.lga>
Source record: 74665

I received a request from Frank, VE6CB, in the post directly above Richard's, asking for a copy of my dipole impedance data.

I tried unsuccessfully to send to Frank, but my server rejects his email address. Can someone help me get a msg to Frank?

Walt, W2DU

1550. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 17:40:52 UTC
From: Wes Stewart <*n7ws*@yahoo.com>
Message-ID: <rdvdb1pj24h9td4ar9v46n36m8imv6a1iu@4ax.com>
Source record: 74666

On 20 Jun 2005 09:24:22 -0700, radio913@aol.com wrote:

|
|
|Richard Clark wrote:
|> On 20 Jun 2005 01:00:51 -0700, radio913@aol.com wrote:
|> > If Zo=50+j0.000000000001,
|> And it is not
|> > then it's close enough!
|> hence it follows from this logic, it is not close enough.
|>
|
| Even if Zo=50+j2, then the VSWR will
|still be very close to a 1:1 match.
|
| You antenna boys don't build too many
|power amplifiers, obviously.

And you know this how? And it matters why?

But in case it does, I've been building amps since I was a teenager.
Through the years, I built a number of hf and vhf amps for friends.

Here's one I built for myself.

http://www.qsl.net/n7ws/K7CVT_Amp.html

Its replacement with an 8877 is sitting beside me.

1551. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 18:08:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b7070c$1_1@spool9-west.superfeed.net>
Source record: 74667

Walter Maxwell wrote:
> I tried unsuccessfully to send to Frank, but my server rejects his email
> address. Can someone help me get a msg to Frank?

Walt, did you remove the "nospam" from Frank's address
before attempting to send? His address appears to be:
ve6cb@telus.net
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1552. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 18:18:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11be23g8612r107@corp.supernews.com>
Source record: 74668

I have a paper showing measurements of soil conductivity made by the accepted method of using a buried open wire line, which sounds similar to your method. The authors found that the conductivity varies considerably with frequency. Have your measurements shown this also?

Roy Lewallen, W7EL

Reg Edwards wrote:
> It is fairly easy to measure soil conductivity at DC and power
> frequencies. See program EARTHRES. Such measurement values apply up to
> a few hundred kHz.
>
> A few years back I became curious about what happens to conductivity
> at HF. And at what frequencies does soil permittivity begin to matter.
> Most amateur activity is at HF and above. Yet, without even thimking
> about it, we persist in plugging in power frequency values into
> formulae and computer programs.
>
> A volume of soil between a pair of electrodes behaves as a resistance
> in parallel with a capacitor.
>
> So this is what I did -
> . . .

1553. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 18:19:41 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <1NDte.71145$on1.13819@clgrps13>
Source record: 74669

"Walter Maxwell" <walt@w2du.com> wrote in message
news:k6Dte.3951$Gp.334@fe04.lga...
>I received a request from Frank, VE6CB, in the post directly above
>Richard's, asking for a copy of my dipole impedance data.
>
> I tried unsuccessfully to send to Frank, but my server rejects his email
> address. Can someone help me get a msg to Frank?
>
> Walt, W2DU

Sorry Walt, but I put in some anti spam characters in my e-mail. My actual address is ve6cb@telus.net

Thanks,

Frank

1554. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 18:43:09 UTC
From: Buck <iam@this.site>
Message-ID: <6e3eb1pc24fgsq8njs68rc2gpcmkbsptld@4ax.com>
Source record: 74670

On Fri, 17 Jun 2005 13:15:51 -0400, "Bill Ogden"
<wogden@attglobal.net> wrote:

>One ARRL stand (at Dayton) handed out small, black foam balls that are
>intended to be stuck on the end of a whip antenna. Stops corona (maybe --
>let us skip that discussion).
>
>I do not normally have a transmitter in my truck, so I stuck the ball on my
>standard truck radio antenna. (It is a 2003 Ford Ranger.) Since doing this
>I have noticed that the antenna almost always vibrates a little -- even
>after sitting stopped (engine off) in the garage for many minutes. The ball
>on the top moves at least 1/8 inch; it is easily seen if I focus on it.
>
>It appears I have a good resonant antenna to sustain this motion for long
>periods, across an almost 3:1 range (the AM broadcast band) and a bonus VHF
>range (the FM broadcast band). I assume that Hooke's law (if I remembered
>the right name for it) applies instead of the
>break-from-metal-fatigue-or-metal-work-hardening-law will apply such that
>the antenna does not snap off sometime. Perhaps I should patent this
>resonant antenna that is almost frequency independent!
>
>Bill
>W2WO
>

Years ago someone invented something to place on the tops of antennas
that improved their signals considerably. The military allegedly
purchased many of these. They looked like a ball with a tear-drop
shape where the small pointed end fit over the end of the antenna.

Is this that same device or something along it's principal?

thanks
Buck
N4PGW

--
73 for now
Buck
N4PGW

1555. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 18:50:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11be3v5ire8a0e3@corp.supernews.com>
Source record: 74671

Although knowledge of surface ground conductivity and dielectric constant is much better than nothing, unfortunately it's still not enough to get truly accurate results from modeling or calculation. Most grounds are stratified, as anyone can discover by digging a few feet down, with layers which can be vastly different. The skin depth at 3.5 MHz in average soil is 16 feet, and at 7 MHz and above about 13 feet(*), which means that significant current flows to depths several times these values. To make an accurate representation of the ground would require knowledge of the ground characteristics to several tens of feet.

Fortunately, horizontally polarized antennas are quite insensitive to ground characteristics except at high elevation angles. So for amateur purposes, it's of interest mostly for vertical antennas and NVIS operation with horizontal antennas.

To accurately predict the field strength for vertically polarized antennas, you would need to know ground characteristics typically for a few hundred feet from the antenna (depending on the height and current distribution on the antenna and the elevation angle of interest) -- the distance at which the field from the antenna strikes the ground and reflects to interfere with the direct field. This is admittedly a simplification of what really happens, but the distance where the effects occur is approximately right. You also need to know the ground characteristics in the close vicinity of the antenna to evaluate the efficiency of an antenna having a radial system. Besides the problems of stratified ground, many of us live in an urban environment where buried utilities, pipes, reinforcing bar, and houses are likely to be within the radius of interest.

Finally, even if you had exact information about each layer of a stratified ground, I don't know of any readily available program which can make use of that information. NEC based programs like EZNEC can accommodate only a single ground characteristic, and assume that the ground is homogeneous to an infinite depth. I'm not convinced that there's any single value which can be substituted for a stratified ground which will behave like the stratified ground. This is the weakest point of currently available modeling programs. But even if they could model stratified ground, you'd have to know values for each ground layer.

The method used in broadcasting, where the skin depth is on the order of 25 feet(*), of measuring the attenuation of a ground wave signal over a lengthy path is a much more accurate way of determing overall path loss than simple measurement of surface ground characteristics, since it automatically takes into account all the factors I've mentioned.

Again, knowledge of surface ground characteristics is better than nothing, but don't be fooled into thinking that it gives you real information about the ground in which the RF current flows. Had Brown, Lewis, and Epstein measured the surface ground conductivity, it wouldn't have helped us much.

(*) You might notice that the skin depths don't follow the familiar rule of decreasing as the square root of frequency. That's because the familiar rule is valid only for good conductors. Average Earth acts like a good conductor below about 7 MHz, but above that it's more like a dielectric, where the skin depth becomes independent of frequency. Consequently it's not less than 12 - 13 feet at any frequency for average soil.

Roy Lewallen, W7EL

1556. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 18:54:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11be46lp4dat179@corp.supernews.com>
Source record: 74672

Walter Maxwell wrote:
> . . .
> One of the reasons I offered to distribute the data from my
> measurements is to see whether anyone can deduce any soil
> characteristics from the changes in impedance with height. The
> changes are significant. For example, the terminal impedance with the
> dipole on the ground runs from 470 + j250 at 14 MHz to 570 + j132 at
> 15 MHz. The inductive reactance doesn't become capacitive until the
> dipole is 2 ft off the ground. In addition, except at zero height,
> the resistance component decreases with height, but for every height
> the resistance increases with frequency. Do you think any of the soil
> characteristics could be determined by such data?
> . . .

I haven't looked into this carefully, but one person I know who was very involved in NVIS operation (where ground characteristics are important) tried it some years ago. He concluded that it wasn't possible to set the antenna height and make measurements with sufficient accuracy to infer the ground characteristics with any confidence.

Roy Lewallen, W7EL

1557. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 19:12:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t7tdb1l87qmljdf5deb2e3t3equgfuj5ih@4ax.com>
Source record: 74673

On 20 Jun 2005 11:36:28 -0500, tclay@qmc.ph.msstate.edu wrote:

>A simpler method that avoids all the digging and repacking of
>the soil is described at
>
>http://www.antennasbyn6lf.com/2005/05/soil_parameter_.html
>
>I've been meaning to try it at my qth this summer.

Hi Torsten,

Another attractive solution of one datum trying to solve a multivariate problem.

On review of the material offered at this link above, I find that its "Figure 2, widely used graph of conductivity versus frequency for various soils" is in brutal conflict with other published material. The inscription of "transition frequency" reveals such examples that are off from the data inflections by orders of magnitude. Further, there is no citation for where this figure was lifted (and there is evidence of doctoring, if only to erase the original figure number).

The data in "Table 1, 18" monoprobe, Co = 7.41 pF. On my antenna hill with an AEA-CIA analyzer" also reveals a curious condition that is nearly equal to swamp-like conditions in its Q evaluations, and yet showing almost no frequency variation nearly equal to desert like soil.

The graph, "Figure 10, Comparison of Er between two sites" reveals that the Hill site has a soil condition equal to Fresh Water at 1 MHz. It then plunges to a "Very Wet Soil" condition at 8 MHz (curious thing about this, is that earlier data did not show any frequency variation in Q). The Rose Garden site, again, showed very swamp like conditions. This is a very exceptional region of the country, to say the least. I've seen only one example in fiction: Dilbert's visits to Elbonia where every one lives in waist deep mud.

In graph, "Figure 11, soil conductivity with and without grass cover using an 18" monoprobe," is presented data that is inverse relationship to published data. But this, too, is (in)consistent with other material presented at the link provided.

This goes on and on - to the neglect of confirmation against the numerous references cited (without corresponding discussion nor tie-in).

There is a wealth of data and information, but given it does not agree with other published data, it appears to suffer from a poverty of correlation. The simple numbers revealed as conductivity, di-electric constants and the Q relationships; if used as sanity checks, says that precision and accuracy in measurements does not redeem this analysis.

Something is very seriously in error: either my reading, or the material offered.

73's
Richard Clark, KB7QHC

1558. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 20:21:58 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <JzFte.3949$xm1.126@fe06.lga>
Source record: 74674

Roy, W7EL wrote:
> I haven't looked into this carefully, but one person I know who was very
> involved in NVIS operation (where ground characteristics are important)
> tried it some years ago. He concluded that it wasn't possible to
> set the antenna height and make measurements with sufficient accuracy to
> infer the ground characteristics with any confidence.
>
> Roy Lewallen, W7EL

Understood, Roy, but was this person saying that with just one height it wouldn't give sufficient accuracy, or is he saying that with impedance knowledge at many different heights there would still be no determination of any of the ground characteristics?

Would you not like to see my data before concluding it couldn't reveal any ground characteristics.?

Walt

1559. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 20:49:47 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <NZFte.36$rK4.3464313@news.sisna.com>
Source record: 74528

... well, one might look kewl on my tinfoil hat! <grin>

Regards,
John
"Buck" <iam@this.site> wrote in message
news:6e3eb1pc24fgsq8njs68rc2gpcmkbsptld@4ax.com...
>
> On Fri, 17 Jun 2005 13:15:51 -0400, "Bill Ogden"
> <wogden@attglobal.net> wrote:
>
>>One ARRL stand (at Dayton) handed out small, black foam balls that are
>>intended to be stuck on the end of a whip antenna. Stops corona
>>(maybe --
>>let us skip that discussion).
>>
>>I do not normally have a transmitter in my truck, so I stuck the ball
>>on my
>>standard truck radio antenna. (It is a 2003 Ford Ranger.) Since
>>doing this
>>I have noticed that the antenna almost always vibrates a little --
>>even
>>after sitting stopped (engine off) in the garage for many minutes.
>>The ball
>>on the top moves at least 1/8 inch; it is easily seen if I focus on
>>it.
>>
>>It appears I have a good resonant antenna to sustain this motion for
>>long
>>periods, across an almost 3:1 range (the AM broadcast band) and a
>>bonus VHF
>>range (the FM broadcast band). I assume that Hooke's law (if I
>>remembered
>>the right name for it) applies instead of the
>>break-from-metal-fatigue-or-metal-work-hardening-law will apply such
>>that
>>the antenna does not snap off sometime. Perhaps I should patent this
>>resonant antenna that is almost frequency independent!
>>
>>Bill
>>W2WO
>>
>
>
> Years ago someone invented something to place on the tops of antennas

> that improved their signals considerably. The military allegedly
> purchased many of these. They looked like a ball with a tear-drop
> shape where the small pointed end fit over the end of the antenna.
>
> Is this that same device or something along it's principal?
>
> thanks
> Buck
> N4PGW
>
> --
> 73 for now
> Buck
> N4PGW

1560. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 20:50:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nl9eb157eso3l79dnit0k9f5pudo7evlbe@4ax.com>
Source record: 74525

On Mon, 20 Jun 2005 16:21:58 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:
>Understood, Roy, but was this person saying that with just one height it
>wouldn't give sufficient accuracy, or is he saying that with impedance knowledge
>at many different heights there would still be no determination of any of the
>ground characteristics?

Hi Walt,

And per my several critiques into this matter, all such broad
proclamations lack the fundamental of drawing a validation through
correlating work in the subject. Let's examine the one point offered:
>> He concluded that it wasn't possible to
>> set the antenna height and make measurements with sufficient accuracy to
>> infer the ground characteristics with any confidence.
This, of course, presumes that this source has any actual
authoritative data. Something that is prohibitively beyond the scope
of an individual to determine (when it is already rejected through
correlations of antenna characteristics and measurements) in the first
place suggests there is none.

Roy has already pointed out the futility of a piece-wise measurement
throughout the bulk of earth soaked by RF to its skin depth. I have
pointed out that these several treatments offered only go to the thin
veneer of soil. Some conclusions drawn were preposterous on the face
of the data offered. Further, to suggest the four lead measurement be
stretched to employing wavelength sized leads is fraught with error
through the denial of those leads becoming what every Amateur already
has, an antenna.

Reg has dismissed the use of an antenna to measure the earth's
contribution of loss, or to distinguish its characteristics by
perturbing the known characteristic of an antenna. Such dismissal is
not an argument - it is a conceit.

Walt, your data is comprehensive enough to build a soil model for the
band you studied. I seriously doubt anyone could challenge your
results if they were internally consistent.

73's
Richard Clark, KB7QHC

1561. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 21:29:45 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <gzGte.12287$wm2.7585@fe05.lga>
Source record: 74526

> Walt, your data is comprehensive enough to build a soil model for the
> band you studied. I seriously doubt anyone could challenge your
> results if they were internally consistent.
>
> 73's
> Richard Clark, KB7QHC

Thanks Richard, you've made my day!

Walt

1562. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 21:48:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d97djc$fm6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74527

Dick,

PHOOEY !

88, Punchinello

1563. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 21:54:36 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <+XUl4djcsztCFAch@ifwtech.co.uk>
Source record: 74529

Richard Harrison wrote:
>Ian, GM3SEK wrote:
>"I am trying not to be biased about the actual problem - "
>
>Open minds consider arguments.
>
Certainly. You begin with small steps that no-one will seriously dispute.

>Wave velocity = frequency x wavelength
>
>Wave velocity in free space is 186,000 miles per second (300,000
>km/sec).
>
>Velocity of disturbances on open wire transmission lines is almost equal
>to that in free space.
>
>At high radio frequencies, a wavelength may be measured in inches and
>centimeters. A transmission line containing a discontinuity produces a
>reflection from the change. As a short distance can produce a phase
>change of 360 degrees, the incident and reflected waves can combine to
>produce voltage variations along a short line length. These can be
>measured using simple instruments with confidence.
>
>Circuit theory works on transmission lines because the proximity of
>their conductors causes an effect on one conductor to be instantaneously
>imposed on the other.
>
>A transmission line cannot be analyzed as a simple series circuit
>because current in the wires is not everywhere the same. Volts and amps
>vary along the line depending upon construction, length. and load placed
>on the line.
>
>The line`s resistance, inductance, conductance, and capacitance are
>distributed and accumulate with its length. In a wave in either
>direction on the line, the volts and amps at any point on the line
>conform to Zo but also depend on summation of the incident and reflected
>waves at that point. Current in the linee is not independent of the
>voltage.
>
>A transmission line of any length terminated with an impedance equal to
>its Zo has an input impedance of Zo.
>
But here you pick up the pace. Instead of the detailed argument above,

suddenly whole chapters flash by in a single sentence:

>Distribution of volts and amps on lines terminated with loads other than
>Zo has been demonstrated countless times and is well understood.

>Directional couplers are capable of separating forward and reverse
>directions on a line, and are also well known, understood and have
>proved useful.

And it's all a calculated run-up to this huge flying leap:

>The Bird wattmeter uses a directional coupler, works as
>advertised, and may be inserted anywhere in a 50-ohm coax line.
>
Sorry, Richard, but that isn't a constructed argument any more. It's
just a declaration.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1564. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 22:13:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2ofeb1l8bsnl5u9v0d49r7qgloe2pe8gam@4ax.com>
Source record: 74530

On Mon, 20 Jun 2005 21:48:28 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> rustling his apron wrote:
>Dick,
>PHOOEY !

Yeah, but you heard it from me first. :-0

1565. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 22:20:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d97feirjp1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74531

Walter,

What people want to know is how soil constants change with frequency.

Measurements at one frequency will tell you nothing about that.

Yes please, send me a copy of your test results. But I can't
guarantee receiving anything attached to an e-mail. My computer is
playing games. Can you send it AS an e-mail.

Reg.

==

"Walter Maxwell" <walt@w2du.com> wrote in message
news:gzGte.12287$wm2.7585@fe05.lga...
>
> > Walt, your data is comprehensive enough to build a soil model for
the
> > band you studied. I seriously doubt anyone could challenge your
> > results if they were internally consistent.
> >
> > 73's
> > Richard Clark, KB7QHC
>
> Thanks Richard, you've made my day!
>
> Walt
>
>

1566. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 23:02:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d97hu3$58t$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74532

> >PHOOEY !
>
> Yeah, but you heard it from me first. :-0

==========

You are not so clever.

You didn't detect my deliberate mistake.

Ah well, I suppose I shall have to tell you.

Soil constants are not constant.

Wanna make a bet you don't have the last say?

Punchinello

1567. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-20 23:16:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b74f4c$1_2@spool9-west.superfeed.net>
Source record: 74533

Ian White GM3SEK wrote:
> Richard Harrison wrote:
>> The Bird wattmeter uses a directional coupler, works as
>> advertised, and may be inserted anywhere in a 50-ohm coax line.
>>
> Sorry, Richard, but that isn't a constructed argument any more. It's
> just a declaration.

Do we need to go into the wave reflection model in detail? The Bird wattmeter accepts the wave reflection model as scientific fact as do most of my reference books. Given the wave reflection model and a 50 ohm environment, the Bird wattmeter reads forward and reflected power, i.e. the number of joules passing a point on the 50 ohm transmission line in each direction. The Bird wattmeter assumes: Forward V is in phase with forward I. Reflected V is in phase with reflected I.
Vfor*Ifor = Pfor Vref*Iref = Pref
Vfor/Ifor = 50 ohms, Vref/Iref = 50 ohms.
Vfor^2/50 = forward power, Vref^2/50 = reflected power
Ifor^2*50 = forward power, Iref^2*50 = reflected power
All this is in any good textbook covering the wave reflection model and has been accepted as fact by RF engineers for the better part of a century.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1568. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 00:44:54 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d97o0n$i7q$1@news.service.uci.edu>
Source record: 74534

Richard Harrison wrote:

> Reflected power is again reflected at the match point
> because the matched source sees no reflection.

I think you put your finger on it, Richard. That's exactly what
inspired the 'sloshing energy' comment.

73, ac6xg

1569. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 01:00:01 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <lEJte.85460$tt5.83004@edtnps90>
Source record: 74535

> I have done some more calculations on a square loop fed at the corner. I
> agree with your results of input impedance. NEC 2 shows Zin at 0.388 +
> j109. The radiation efficiency of such a loop is 2.88%. I have made a
> very careful analysis of the currents in the loop when in the presence of
> a know E field. The current appears to vary in a sinusoidal manner around
> the loop, with very slight discontinuities at the corners. I assume the
> variation in current is due to the fact that the induced current is
> different on those conductors normal to the dipole axis.
>
> Using the RMS current through the 50 ohm load resistor at the corner, and
> more careful calculations, I obtain an antenna factor of 60 dB, or 24 dB
> more than your findings. It will be interesting to find why we have such
> a large difference.

I see nobody picked up my deliberate mistake! Using Terman's simplified formulas on pp 813, and 814, I get identical parameters of induced voltage, and antenna factor. I completely agree with the results of the Mathcad file, although have not gone through the more intricate equation development yet.

Using NEC 2 I found out, the hard way, that maximum pick-up takes place off the ends of the loop. Given these constraints: With a field strength of 5.5 V/m, the voltage across the 50 Ohm resistor is 0.091 V RMS, or an antenna factor of 35.1 dB. Within 0.4 dB of Owen's results.

Interesting exercise, and I actually learned something.

73,

Frank

1570. Re: roof or ground 'height'?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 01:19:47 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <2qCdnZAFday09irfRVn-3g@comcast.com>
Source record: 74536

"ml" <m@di.net> wrote in message
news:m-8C8A75.18141319062005@news.verizon.net...
> In article <3debb19faem6brd3q6qbg025kgsnue4tp8@4ax.com>,
> Richard Clark <kb7qhc@comcast.net> wrote:
>
>> On Sun, 19 Jun 2005 18:11:20 GMT, ml <m@di.net> wrote:
>> >antenna 'rf' wise, i my antenna height measurement that i use, above
>> >the ground or roof surface??
>>
>> Hi Myles,
>>
>> Both. For purposes of feeding it, the proximity of other conductors
>> and sources of loss, the antenna is as close as that 20' you offer.
>> On the other hand, for purposes of propagation, your antenna will act
>> like it is elevated 175'.
>>
>> Your experience, compared to others, will fall somewhere in between.
>> Personally, I would think you have a very nice situation. If you seek
>> to improve it, it would only be in shades of a degree, not in leaps
>> nor bounds.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> dear Richard
>
>
> thanks very much you set me straight.
>
> I do ponder what i'd have to do (antenna wise) to get a significant
> order of magnatude like perhas 200% ie 6db?
>
> i guess going from dipole to a large beam would be significant in
> comparasion
>
> but what do you do when you want a bit more than a typical single beam
> gives you? stack/co phase 2???
>
> (naturally i am not counting amps of anykind here)
>

Actally, on HF, you will never have an antenna that will give you the boost
of an amplifier. I can think of any number of occasions when I was part of a
DX pileup with 100W; finally threw in the towel and fired up the amp. Guy

would come back to me on the first or second call.

Tam/WB2TT

> thanks all
>
>
> and Rich , thanks
>
> m

1571. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 01:26:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ber6iibllr55c@corp.supernews.com>
Source record: 74537

Walter Maxwell wrote:
> Roy, W7EL wrote:
>
>>I haven't looked into this carefully, but one person I know who was very
>>involved in NVIS operation (where ground characteristics are important)
>>tried it some years ago. He concluded that it wasn't possible to
>>set the antenna height and make measurements with sufficient accuracy to
>>infer the ground characteristics with any confidence.
>>
>>Roy Lewallen, W7EL
>
>
> Understood, Roy, but was this person saying that with just one height it
> wouldn't give sufficient accuracy, or is he saying that with impedance knowledge
> at many different heights there would still be no determination of any of the
> ground characteristics?

I interpreted what he said as meaning that he looked into the method and
determined it wasn't practical. Surely he thought of making numerous
measurements. He's a very capable engineer, so I took what he said at
face value. On the other hand, I don't think he's highly skilled in
making precision antenna measurements, so he might have assumed that a
level of accuracy wasn't achievable which in fact might be.

You might spend a little while with EZNEC looking at how much a change
in ground conductivity or permittivity changes the antenna input Z at
various heights, and how much the height changes the Z with a given set
of ground characteristics. Then consider whether you'd be able to set
the height and make the impedance measurements accurately enough to
infer the ground characteristics with any degree of confidence.

> Would you not like to see my data before concluding it couldn't reveal any
> ground characteristics.?

I'd like to see your data, but it wouldn't be enough information to
conclude whether the method would be practical or not.

Roy Lewallen, W7EL

1572. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 01:27:48 UTC
From: Owen <none@no.where>
Message-ID: <o2Kte.24620$F7.19141@news-server.bigpond.net.au>
Source record: 74538

Frank wrote:

> Using NEC 2 I found out, the hard way, that maximum pick-up takes place off
> the ends of the loop. Given these constraints: With a field strength of
> 5.5 V/m, the voltage across the 50 Ohm resistor is 0.091 V RMS, or an
> antenna factor of 35.1 dB. Within 0.4 dB of Owen's results.
>

That is great Frank, I like it because it agrees of course, but if its a valid model, that is even better.

My model was much simpler in just trying to establish the Z of the loop, I didn't do what you have done and irradiated the loop, well done. My only residual concern is whether your receive loop was far enough from the exciter to be truly operating under free space conditions. I suppose if you double the distance and get nearly identical results, that would be sufficient confirmation.

Two questions:
1. can I have a look at your model;
2. would you permit me to publish it (with attribution) on a web page that I am drafting on the antenna design for BPL interference and other interference measurement purposes.

BTW, although the gain is really low, I have also used it effectively for getting bearings on interference from afar (though, DFing HF signals is problematic, especially at high path angles).

> Interesting exercise, and I actually learned something.
>

Life is fun, isn't it.

There is more to ham radio that "logging-in" to content-free nets, talking about what is on the menu for dinner. Indeed, I suspect that more "real" ham radio takes place off-air than on-air.

Owen

1573. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 01:51:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <5c58a$42b77291$97d55d24$31713@ALLTEL.NET>
Source record: 74539

It would be interesting to recreate the measurements at other locations. My location has 500 feet of sand below me. It would be a great improvement just to have poor soil.

"Walter Maxwell" <walt@w2du.com> wrote in message news:42Bte.3925$Gp.1134@fe04.lga...
> Hi Reg,
>
> You've presented a very interesting way of measuring soil characteristics. When
> I return to Florida in November I'm going to use your method of measuring the
> soil underneath the dipole whose impedances I measured over the frequency range
> 14 to 15 MHz at various heights above ground, including one set of measurements
> with the dipole lying on the ground.
>
> One of the reasons I offered to distribute the data from my measurements is to
> see whether anyone can deduce any soil characteristics from the changes in
> impedance with height. The changes are significant. For example, the terminal
> impedance with the dipole on the ground runs from 470 + j250 at 14 MHz to 570 +
> j132 at 15 MHz. The inductive reactance doesn't become capacitive until the
> dipole is 2 ft off the ground. In addition, except at zero height, the
> resistance component decreases with height, but for every height the resistance
> increases with frequency. Do you think any of the soil characteristics could be
> determined by such data?
>
> Would you like a copy of my data, just fer the helovit?
>
> Walt, W2DU
>
>

1574. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 02:50:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119322221.197091.20760@o13g2000cwo.googlegroups.com>
Source record: 74540

Jim Kelley wrote:
> Richard Harrison wrote:
>
> > Reflected power is again reflected at the match point
> > because the matched source sees no reflection.
>
> I think you put your finger on it, Richard. That's exactly what
> inspired the 'sloshing energy' comment.

Except that the "sloshing energy" comment doesn't have the energy sloshing from the load to the match point and back at the speed of light. As I understand the concept of "sloshing energy" it is sloshing back and forth rather locally between the inductance and the capacitance.
--
73, Cecil http://www.qsl.net/w5dxp

1575. Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 03:17:40 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <vFLte.12355$wm2.10139@fe05.lga>
Source record: 74541

Hi All,

Reg asked if I could send my data as an email, so I converted the file to text format to be able to present the data in full here in this msg.

I checked to see that the tabular format remained intact, and it did in Outlook Express, so here it is. I hope the tabular format will remain intact in your browsers. Be sure to give your screen maximum width. If it doesn't, let me know and I'll resend in PDF format.

I'd like to hear your comments.

Walt, W2DU

Dipole Terminal Impedance Data Obtained From Measurements at Various Heights Above Ground in the Frequency Range from 14.0 to 15.0 MHz. Measurements Made be W2DU at the W2DU site in DeLand, Florida.

081883z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 0 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 32.24 82.000 .7129 5.97 .8361 11.203 471.51 249.55

14.050 34.51 85.410 .7122 5.95 .8355 11.162 472.73 246.63

14.100 37.29 89.720 .7130 5.97 .8367 11.246 492.08 236.91

14.150 40.17 93.780 .7133 5.98 .8372 11.287 499.53 233.27

14.200 43.26 98.590 .7161 6.04 .8408 11.562 519.29 232.53

14.250 47.28 101.890 .7108 5.91 .8348 11.104 500.18 221.92

14.300 50.16 106.640 .7158 6.04 .8410 11.575 507.65 243.02

14.350 54.38 111.640 .7175 6.08 .8432 11.752 514.89 247.15

14.400 60.56 117.710 .7177 6.09 .8437 11.793 538.46 229.17

14.450 66.85 122.840 .7167 6.06 .8427 11.717 540.01 222.81

14.500 74.16 127.930 .7152 6.02 .8411 11.590 539.31 215.08

14.550 82.61 137.040 .7235 6.23 .8511 12.435 592.76 215.22

14.600 92.70 139.380 .7148 6.01 .8412 11.595 554.28 198.71

14.650 105.06 144.030 .7121 5.95 .8383 11.366 554.30 180.74

14.700 117.42 149.660 .7143 6.00 .8410 11.580 563.86 185.38

14.750 131.84 152.680 .7125 5.96 .8392 11.437 556.91 183.08

14.800 149.35 155.540 .7126 5.96 .8395 11.462 562.13 177.94

14.850 168.92 155.220 .7110 5.92 .8378 11.333 559.18 171.07

14.900 191.58 150.340 .7077 5.84 .8342 11.065 553.87 154.78

14.950 217.85 144.480 .7096 5.89 .8366 11.242 569.11 146.40

15.000 244.11 130.130 .7083 5.86 .8353 11.144 570.70 132.61

081683z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 1 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 56.65 41.790 .3540 2.10 .4152 2.420 126.17 21.64

14.050 57.78 43.490 .3640 2.14 .4270 2.490 129.06 24.11

14.100 57.89 44.820 .3732 2.19 .4380 2.559 130.13 29.60

14.150 59.43 46.140 .3794 2.22 .4453 2.606 131.77 31.51

14.200 60.56 47.750 .3883 2.27 .4560 2.676 133.64 35.13

14.250 61.80 49.260 .3963 2.31 .4655 2.742 135.02 38.76

14.300 63.45 50.770 .4036 2.35 .4741 2.803 136.53 41.73

14.350 65.20 52.400 .4115 2.40 .4836 2.873 138.13 45.04

14.400 66.95 54.380 .4215 2.46 .4955 2.964 140.14 49.29

14.450 69.53 56.120 .4292 2.50 .5046 3.037 142.41 51.88

14.500 71.89 57.380 .4344 2.54 .5109 3.089 142.99 54.70

14.550 74.37 62.060 .4581 2.69 .5389 3.338 149.79 63.78

14.600 77.77 63.840 .4652 2.74 .5475 3.420 151.82 66.84

14.650 81.37 66.420 .4764 2.82 .5608 3.554 154.95 71.86

14.700 85.49 68.030 .4830 2.87 .5687 3.637 156.79 75.00

14.750 90.33 69.490 .4895 2.92 .5765 3.723 159.23 77.78

14.800 94.97 71.080 .4970 2.98 .5856 3.826 160.68 82.03

14.850 100.94 72.460 .5047 3.04 .5948 3.936 163.76 85.54

14.900 109.18 73.830 .5146 3.12 .6066 4.084 170.44 88.74

14.950 114.33 73.580 .5179 3.15 .6107 4.137 168.91 92.16

15.000 121.54 73.330 .5240 3.20 .6180 4.236 170.74 95.74

081183z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 2 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 75.81 28.790 .2716 1.75 .3186 1.935 99.53 -18.85

14.050 74.98 28.610 .2685 1.73 .3150 1.920 100.61 -14.90

14.100 74.16 28.720 .2672 1.73 .3135 1.913 101.73 -10.81

14.150 73.85 29.050 .2684 1.73 .3150 1.920 102.94 -7.36

14.200 73.13 29.650 .2703 1.74 .3174 1.930 104.10 -2.96

14.250 72.31 30.810 .2757 1.76 .3238 1.958 105.65 2.12

14.300 72.20 31.400 .2791 1.77 .3279 1.976 106.24 5.88

14.350 72.20 32.610 .2865 1.80 .3367 2.015 107.55 10.11

14.400 73.13 34.240 .2979 1.85 .3502 2.078 110.01 13.54

14.450 74.16 35.500 .3070 1.89 .3609 2.130 111.73 16.80

14.500 74.47 37.100 .3169 1.93 .3727 2.188 112.78 21.77

14.550 75.81 38.690 .3279 1.98 .3857 2.256 114.62 25.56

14.600 77.25 39.790 .3360 2.01 .3954 2.308 115.59 28.88

14.650 79.00 41.910 .3500 2.08 .4119 2.401 117.83 33.57

14.700 80.86 42.860 .3574 2.11 .4209 2.453 118.47 36.77

14.750 83.43 44.810 .3709 2.18 .4368 2.551 120.78 41.13

14.800 86.00 46.350 .3819 2.24 .4499 2.636 122.18 45.27

14.850 88.89 47.810 .3928 2.29 .4629 2.724 123.50 49.44

14.900 92.70 48.990 .4037 2.35 .4758 2.815 125.59 53.04

14.950 96.51 50.170 .4145 2.42 .4887 2.912 127.08 57.19

15.000 100.94 51.330 .4261 2.49 .5026 3.021 128.90 61.64

082483z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 3 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 88.79 23.290 .2894 1.81 .3394 2.027 89.27 -35.58

14.050 87.65 21.710 .2794 1.78 .3278 1.975 89.92 -32.38

14.100 86.00 20.640 .2691 1.74 .3158 1.923 90.82 -28.58

14.150 84.46 20.000 .2605 1.70 .3057 1.881 91.78 -24.84

14.200 82.40 19.790 .2511 1.67 .2949 1.836 92.70 -20.22

14.250 81.37 19.930 .2474 1.66 .2906 1.819 93.89 -16.72

14.300 80.34 20.350 .2450 1.65 .2878 1.808 95.07 -12.95

14.350 79.52 20.910 .2441 1.65 .2869 1.805 96.17 -9.20

14.400 78.49 21.670 .2436 1.64 .2863 1.802 96.97 -4.90

14.450 78.28 22.700 .2477 1.66 .2912 1.822 98.34 -1.26

14.500 78.18 23.720 .2522 1.67 .2966 1.844 99.47 2.43

14.550 78.28 25.020 .2590 1.70 .3047 1.876 100.76 6.37

14.600 78.38 26.580 .2671 1.73 .3143 1.917 101.93 10.81

14.650 79.31 28.120 .2777 1.77 .3269 1.971 103.65 14.60

14.700 80.34 29.860 .2893 1.81 .3407 2.033 105.29 18.84

14.750 82.09 31.190 .3006 1.86 .3541 2.096 107.15 22.20

14.800 83.43 33.180 .3137 1.91 .3696 2.172 108.53 27.11

14.850 85.49 33.870 .3222 1.95 .3797 2.224 109.60 29.92

14.900 87.55 35.230 .3335 2.00 .3931 2.296 110.71 33.99

14.950 90.13 36.660 .3461 2.06 .4081 2.379 112.12 38.22

15.000 92.70 38.000 .3579 2.11 .4221 2.461 112.92 42.62

082483z2.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 4 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 96.61 20.140 .3102 1.90 .3638 2.143 83.63 -43.32

14.050 94.55 17.650 .2956 1.84 .3468 2.062 84.18 -39.69

14.100 92.19 16.030 .2816 1.78 .3305 1.987 85.13 -35.85

14.150 89.10 14.980 .2652 1.72 .3113 1.904 86.08 -31.09

14.200 87.04 14.370 .2541 1.68 .2984 1.851 87.01 -27.34

14.250 84.87 14.180 .2434 1.64 .2858 1.800 87.89 -23.24

14.300 82.50 14.340 .2325 1.61 .2731 1.751 88.55 -18.64

14.350 81.37 14.980 .2291 1.59 .2692 1.737 89.89 -15.13

14.400 80.24 15.830 .2267 1.59 .2665 1.727 91.10 -11.30

14.450 78.69 16.540 .2222 1.57 .2613 1.708 91.40 -6.94

14.500 78.28 17.720 .2252 1.58 .2649 1.721 92.73 -3.34

14.550 77.87 19.180 .2298 1.60 .2703 1.741 94.00 0.73

14.600 77.77 20.550 .2356 1.62 .2773 1.767 95.10 4.59

14.650 78.07 22.050 .2438 1.64 .2870 1.805 96.40 8.40

14.700 78.59 23.880 .2544 1.68 .2996 1.855 97.87 12.64

14.750 79.52 25.420 .2650 1.72 .3121 1.907 99.20 16.42

14.800 80.44 27.090 .2760 1.76 .3252 1.964 100.21 20.59

14.850 81.89 28.890 .2890 1.81 .3406 2.033 101.57 24.82

14.900 83.43 30.540 .3013 1.86 .3551 2.101 102.50 29.02

14.950 86.01 32.110 .3156 1.92 .3722 2.185 104.42 32.92

15.000 88.07 33.530 .3275 1.97 .3862 2.258 105.04 37.05

080283z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 5 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 103.00 18.640 .3316 1.99 .3889 2.273 80.23 -48.99

14.050 99.39 15.580 .3113 1.90 .3652 2.150 81.17 -44.27

14.100 96.31 12.980 .2933 1.83 .3442 2.050 81.61 -40.08

14.150 94.25 11.450 .2814 1.78 .3303 1.987 82.47 -37.03

14.200 90.13 10.560 .2605 1.70 .3058 1.881 83.25 -31.62

14.250 87.65 10.035 .2473 1.66 .2904 1.819 83.99 -27.78

14.300 85.49 10.210 .2367 1.62 .2781 1.770 85.09 -23.94

14.350 83.43 10.660 .2271 1.59 .2668 1.728 86.07 -19.93

14.400 81.37 11.460 .2184 1.56 .2567 1.691 86.91 -15.54

14.450 80.34 12.460 .2160 1.55 .2539 1.681 88.21 -11.97

14.500 78.80 13.860 .2128 1.54 .2502 1.668 89.10 -7.34

14.550 78.18 15.260 .2149 1.55 .2528 1.677 90.33 -3.47

14.600 77.77 16.640 .2185 1.56 .2571 1.692 91.37 0.37

14.650 77.46 18.290 .2241 1.58 .2638 1.717 92.36 4.58

14.700 77.56 19.930 .2319 1.60 .2731 1.751 93.38 8.61

14.750 78.04 21.660 .2418 1.64 .2848 1.796 94.54 12.63

14.800 78.80 23.310 .2524 1.68 .2974 1.846 95.59 16.54

14.850 79.83 25.260 .2653 1.72 .3126 1.909 96.74 20.89

14.900 80.86 27.110 .2774 1.77 .3270 1.972 97.36 25.27

14.950 82.92 28.760 .2915 1.82 .3437 2.047 98.86 29.13

15.000 85.18 30.530 .3063 1.88 .3612 2.131 100.20 33.36

082483z3.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 8 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 109.70 13.860 .3494 2.07 .4098 2.388 74.16 -53.16

14.050 105.60 9.890 .3286 1.98 .3854 2.254 74.80 -48.85

14.100 101.04 6.950 .3064 1.88 .3595 2.123 75.46 -44.26

14.150 97.34 5.020 .2881 1.81 .3382 2.022 76.16 -40.42

14.200 93.73 3.870 .2701 1.74 .3172 1.929 76.93 -36.50

14.250 89.25 3.750 .2474 1.66 .2905 1.819 77.81 -31.35

14.300 86.83 3.500 .2344 1.61 .2753 1.760 78.50 -28.11

14.350 84.46 4.080 .2219 1.57 .2607 1.705 79.62 -24.45

14.400 81.89 5.190 .2086 1.53 .2452 1.650 80.67 -20.09

14.450 80.03 6.370 .1997 1.50 .2348 1.614 81.72 -16.17

14.500 78.28 7.790 .1924 1.48 .2263 1.585 82.63 -11.99

14.550 77.15 9.450 .1902 1.47 .2237 1.576 83.84 -7.98

14.600 76.22 11.160 .1902 1.47 .2239 1.577 84.85 -3.91

14.650 75.71 13.040 .1943 1.48 .2287 1.593 86.02 0.18

14.700 75.71 15.170 .2028 1.51 .2388 1.627 87.53 4.36

14.750 75.71 17.080 .2111 1.54 .2487 1.662 88.46 8.49

14.800 76.22 18.990 .2221 1.57 .2617 1.709 89.60 12.46

14.850 76.74 20.610 .2319 1.60 .2732 1.752 90.18 16.20

14.900 78.07 23.020 .2484 1.66 .2928 1.828 91.79 20.78

14.950 79.31 25.150 .2630 1.71 .3101 1.899 92.65 25.21

15.000 80.86 27.330 .2785 1.77 .3284 1.978 93.42 29.76

072083z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 10 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 106.61 9.286 .3321 1.99 .3894 2.276 71.35 -49.54

14.050 102.18 5.872 .3105 1.90 .3643 2.146 71.88 -45.34

14.100 96.92 3.546 .2853 1.80 .3348 2.007 72.47 -40.43

14.150 92.70 2.544 .2643 1.72 .3103 1.900 73.40 -36.23

14.200 88.58 2.113 .2430 1.64 .2853 1.798 74.16 -31.82

14.250 84.98 2.421 .2235 1.58 .2625 1.712 75.07 -27.50

14.300 81.89 3.007 .2063 1.52 .2424 1.640 75.84 -23.36

14.350 79.10 4.390 .1914 1.47 .2249 1.580 76.99 -18.90

14.400 76.74 5.868 .1794 1.44 .2109 1.535 77.93 -14.52

14.450 75.19 7.682 .1742 1.42 .2048 1.515 79.31 -10.46

14.500 73.64 9.655 .1710 1.41 .2011 1.503 80.38 -6.01

14.550 72.20 11.821 .1712 1.41 .2014 1.505 81.21 -1.25

14.600 71.59 14.110 .1784 1.43 .2099 1.531 82.49 3.13

14.650 71.59 16.246 .1891 1.47 .2225 1.572 83.91 7.06

14.700 71.59 18.299 .2000 1.50 .2355 1.616 84.86 11.11

14.750 72.10 20.678 .2151 1.55 .2533 1.678 86.26 15.38

14.800 72.82 23.176 .2316 1.60 .2728 1.750 87.54 19.89

14.850 74.16 25.589 .2493 1.66 .2937 1.832 89.11 24.18

14.900 75.40 27.718 .2646 1.72 .3119 1.907 89.94 28.31

14.950 76.53 30.435 .2825 1.79 .3331 1.999 90.30 33.42

15.000 78.28 32.533 .2980 1.85 .3515 2.084 90.79 37.55

082883z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 12 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 117.42 12.430 .3760 2.21 .4410 2.578 70.77 -58.39

14.050 113.09 7.150 .3559 2.11 .4175 2.434 71.15 -54.32

14.100 108.15 3.300 .3345 2.01 .3925 2.292 71.74 -50.08

14.150 103.00 0.600 .3121 1.91 .3664 2.156 72.35 -45.67

14.200 98.37 -0.951 .2913 1.82 .3420 2.039 73.09 -41.55

14.250 93.94 -1.660 .2702 1.74 .3173 1.930 73.85 -37.31

14.300 90.13 -1.820 .2510 1.67 .2948 1.836 74.58 -33.32

14.350 86.52 -1.460 .2316 1.60 .2722 1.748 75.24 -29.15

14.400 83.43 -0.521 .2142 1.55 .2518 1.673 76.08 -24.99

14.450 80.65 0.450 .1979 1.49 .2327 1.607 76.58 -20.92

14.500 78.28 1.930 .1841 1.45 .2165 1.553 77.28 -16.71

14.550 76.43 3.770 .1743 1.42 .2051 1.516 78.21 -12.47

14.600 75.19 5.820 .1699 1.41 .2000 1.500 79.39 -8.34

14.650 74.16 7.710 .1681 1.40 .1979 1.493 80.22 -4.32

14.700 73.13 10.070 .1695 1.41 .1996 1.499 80.93 0.35

14.750 72.62 12.240 .1752 1.42 .2063 1.520 81.61 4.61

14.800 72.62 14.530 .1853 1.45 .2183 1.559 82.53 8.85

14.850 72.62 16.840 .1965 1.49 .2316 1.603 82.99 13.25

14.900 73.13 19.730 .2136 1.54 .2518 1.673 83.87 18.28

14.950 74.16 21.070 .2245 1.58 .2647 1.720 84.42 21.19

15.000 75.91 24.930 .2509 1.67 .2959 1.841 86.13 27.44

071983z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 14 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 112.27 14.571 .3599 2.12 .4220 2.460 73.92 -55.35

14.050 108.15 9.751 .3387 2.02 .3973 2.319 74.20 -50.96

14.100 103.52 6.489 .3168 1.93 .3717 2.183 74.86 -46.45

14.150 98.78 2.831 .2936 1.83 .3447 2.052 74.19 -41.86

14.200 94.76 2.831 .2746 1.76 .3224 1.952 76.08 -37.67

14.250 90.64 2.470 .2539 1.68 .2981 1.850 76.93 -33.10

14.300 87.55 2.587 .2377 1.62 .2792 1.775 77.87 -29.20

14.350 84.25 3.171 .2200 1.56 .2585 1.697 78.60 -24.71

14.400 81.37 4.201 .2045 1.51 .2403 1.633 79.36 -20.19

14.450 79.31 5.723 .1945 1.48 .2287 1.593 80.57 -15.94

14.500 77.25 7.379 .1856 1.46 .2182 1.558 81.39 -11.36

14.550 76.01 9.141 .1829 1.45 .2152 1.548 82.50 -7.24

14.600 74.68 11.233 .1822 1.45 .2144 1.546 83.34 -2.51

14.650 74.26 13.515 .1889 1.47 .2223 1.572 84.80 1.86

14.700 74.16 15.646 .1977 1.49 .2327 1.607 86.06 6.06

14.750 74.16 18.441 .2110 1.53 .2485 1.661 87.43 11.21

14.800 74.37 20.068 .2201 1.56 .2592 1.700 87.82 14.93

14.850 74.68 22.357 .2332 1.61 .2748 1.758 88.28 19.54

14.900 76.12 24.631 .2500 1.67 .2946 1.835 89.76 23.76

14.950 77.25 27.023 .2660 1.72 .3137 1.914 90.35 28.43

15.000 78.38 29.667 .2830 1.79 .3338 2.002 90.42 33.51

082883z2.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 16 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 118.97 16.210 .3854 2.25 .4520 2.650 72.84 -60.71

14.050 114.85 10.320 .3648 2.15 .4280 2.497 73.13 -56.36

14.100 109.70 5.500 .3417 2.04 .4010 2.339 73.36 -51.59

14.150 105.06 2.380 .3213 1.95 .3772 2.211 73.88 -47.45

14.200 100.73 0.296 .3020 1.87 .3546 2.099 74.47 -43.53

14.250 95.48 -1.095 .2776 1.77 .3260 1.967 74.73 -38.60

14.300 91.67 -1.434 .2588 1.70 .3040 1.874 75.47 -34.63

14.350 88.07 -1.150 .2399 1.63 .2820 1.785 76.24 -30.46

14.400 85.28 -0.556 .2246 1.58 .2640 1.717 77.09 -26.73

14.450 82.40 0.346 .2082 1.53 .2448 1.648 77.65 -22.58

14.500 78.80 2.170 .1874 1.46 .2204 1.566 77.90 -16.98

14.550 77.25 3.940 .1796 1.44 .2113 1.536 79.07 -13.02

14.600 75.40 6.030 .1716 1.41 .2020 1.506 79.76 -8.30

14.650 74.26 8.120 .1698 1.41 .1999 1.500 80.63 -3.97

14.675 73.95 9.270 .1715 1.41 .2019 1.506 81.25 -1.81

14.700 73.13 10.480 .1710 1.41 .2013 1.504 81.21 0.82

14.750 72.51 12.810 .1770 1.43 .2085 1.527 81.83 5.36

14.800 72.51 15.140 .1877 1.46 .2211 1.568 82.72 9.67

14.850 72.51 16.770 .1957 1.49 .2306 1.600 82.82 13.21

14.900 73.13 19.500 .2124 1.54 .2503 1.668 83.78 17.98

14.950 74.16 23.010 .2349 1.61 .2770 1.766 84.97 23.80

15.000 75.40 26.200 .2562 1.69 .3022 1.866 85.67 29.27

071783z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 22 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 123.60 23.710 .4104 2.39 .4813 2.856 75.90 -66.80

14.050 120.51 15.800 .3901 2.28 .4577 2.688 75.51 -62.12

14.100 117.42 10.990 .3747 2.20 .4397 2.570 76.32 -58.76

14.150 112.27 6.042 .3521 2.09 .4133 2.409 76.52 -53.83

14.200 108.15 2.460 .3343 2.00 .3925 2.292 76.73 -50.01

14.250 103.00 0.281 .3121 1.91 .3666 2.157 77.29 -45.27

14.300 98.37 -1.119 .2913 1.82 .3422 2.040 77.70 -40.79

14.400 90.13 -1.701 .2509 1.67 .2949 1.837 78.53 -31.85

14.500 84.98 -0.345 .2229 1.57 .2621 1.711 80.19 -24.33

14.600 80.03 2.843 .1953 1.49 .2298 1.597 81.48 -15.04

14.700 77.25 6.803 .1843 1.45 .2170 1.554 83.16 -6.11

14.750 76.22 9.966 .1865 1.46 .2196 1.563 84.39 -0.33

14.800 75.91 11.486 .1897 1.47 .2235 1.576 84.87 3.29

14.850 76.22 14.141 .2011 1.50 .2369 1.621 86.30 8.09

14.900 76.22 16.640 .2115 1.54 .2493 1.664 86.73 13.02

14.950 76.74 19.197 .2252 1.58 .2655 1.723 87.30 17.92

15.000 78.28 21.400 .2415 1.64 .2849 1.797 88.62 22.18

Dipole Terminal Impedance Data Obtained From Measurements at Various Heights Above Ground in the Frequency Range from 14.0 to 15.0 MHz. Measurements Made be W2DU at the W2DU site in DeLand, Florida.

081883z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 0 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 32.24 82.000 .7129 5.97 .8361 11.203 471.51 249.55

14.050 34.51 85.410 .7122 5.95 .8355 11.162 472.73 246.63

14.100 37.29 89.720 .7130 5.97 .8367 11.246 492.08 236.91

14.150 40.17 93.780 .7133 5.98 .8372 11.287 499.53 233.27

14.200 43.26 98.590 .7161 6.04 .8408 11.562 519.29 232.53

14.250 47.28 101.890 .7108 5.91 .8348 11.104 500.18 221.92

14.300 50.16 106.640 .7158 6.04 .8410 11.575 507.65 243.02

14.350 54.38 111.640 .7175 6.08 .8432 11.752 514.89 247.15

14.400 60.56 117.710 .7177 6.09 .8437 11.793 538.46 229.17

14.450 66.85 122.840 .7167 6.06 .8427 11.717 540.01 222.81

14.500 74.16 127.930 .7152 6.02 .8411 11.590 539.31 215.08

14.550 82.61 137.040 .7235 6.23 .8511 12.435 592.76 215.22

14.600 92.70 139.380 .7148 6.01 .8412 11.595 554.28 198.71

14.650 105.06 144.030 .7121 5.95 .8383 11.366 554.30 180.74

14.700 117.42 149.660 .7143 6.00 .8410 11.580 563.86 185.38

14.750 131.84 152.680 .7125 5.96 .8392 11.437 556.91 183.08

14.800 149.35 155.540 .7126 5.96 .8395 11.462 562.13 177.94

14.850 168.92 155.220 .7110 5.92 .8378 11.333 559.18 171.07

14.900 191.58 150.340 .7077 5.84 .8342 11.065 553.87 154.78

14.950 217.85 144.480 .7096 5.89 .8366 11.242 569.11 146.40

15.000 244.11 130.130 .7083 5.86 .8353 11.144 570.70 132.61

081683z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 1 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 56.65 41.790 .3540 2.10 .4152 2.420 126.17 21.64

14.050 57.78 43.490 .3640 2.14 .4270 2.490 129.06 24.11

14.100 57.89 44.820 .3732 2.19 .4380 2.559 130.13 29.60

14.150 59.43 46.140 .3794 2.22 .4453 2.606 131.77 31.51

14.200 60.56 47.750 .3883 2.27 .4560 2.676 133.64 35.13

14.250 61.80 49.260 .3963 2.31 .4655 2.742 135.02 38.76

14.300 63.45 50.770 .4036 2.35 .4741 2.803 136.53 41.73

14.350 65.20 52.400 .4115 2.40 .4836 2.873 138.13 45.04

14.400 66.95 54.380 .4215 2.46 .4955 2.964 140.14 49.29

14.450 69.53 56.120 .4292 2.50 .5046 3.037 142.41 51.88

14.500 71.89 57.380 .4344 2.54 .5109 3.089 142.99 54.70

14.550 74.37 62.060 .4581 2.69 .5389 3.338 149.79 63.78

14.600 77.77 63.840 .4652 2.74 .5475 3.420 151.82 66.84

14.650 81.37 66.420 .4764 2.82 .5608 3.554 154.95 71.86

14.700 85.49 68.030 .4830 2.87 .5687 3.637 156.79 75.00

14.750 90.33 69.490 .4895 2.92 .5765 3.723 159.23 77.78

14.800 94.97 71.080 .4970 2.98 .5856 3.826 160.68 82.03

14.850 100.94 72.460 .5047 3.04 .5948 3.936 163.76 85.54

14.900 109.18 73.830 .5146 3.12 .6066 4.084 170.44 88.74

14.950 114.33 73.580 .5179 3.15 .6107 4.137 168.91 92.16

15.000 121.54 73.330 .5240 3.20 .6180 4.236 170.74 95.74

081183z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 2 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 75.81 28.790 .2716 1.75 .3186 1.935 99.53 -18.85

14.050 74.98 28.610 .2685 1.73 .3150 1.920 100.61 -14.90

14.100 74.16 28.720 .2672 1.73 .3135 1.913 101.73 -10.81

14.150 73.85 29.050 .2684 1.73 .3150 1.920 102.94 -7.36

14.200 73.13 29.650 .2703 1.74 .3174 1.930 104.10 -2.96

14.250 72.31 30.810 .2757 1.76 .3238 1.958 105.65 2.12

14.300 72.20 31.400 .2791 1.77 .3279 1.976 106.24 5.88

14.350 72.20 32.610 .2865 1.80 .3367 2.015 107.55 10.11

14.400 73.13 34.240 .2979 1.85 .3502 2.078 110.01 13.54

14.450 74.16 35.500 .3070 1.89 .3609 2.130 111.73 16.80

14.500 74.47 37.100 .3169 1.93 .3727 2.188 112.78 21.77

14.550 75.81 38.690 .3279 1.98 .3857 2.256 114.62 25.56

14.600 77.25 39.790 .3360 2.01 .3954 2.308 115.59 28.88

14.650 79.00 41.910 .3500 2.08 .4119 2.401 117.83 33.57

14.700 80.86 42.860 .3574 2.11 .4209 2.453 118.47 36.77

14.750 83.43 44.810 .3709 2.18 .4368 2.551 120.78 41.13

14.800 86.00 46.350 .3819 2.24 .4499 2.636 122.18 45.27

14.850 88.89 47.810 .3928 2.29 .4629 2.724 123.50 49.44

14.900 92.70 48.990 .4037 2.35 .4758 2.815 125.59 53.04

14.950 96.51 50.170 .4145 2.42 .4887 2.912 127.08 57.19

15.000 100.94 51.330 .4261 2.49 .5026 3.021 128.90 61.64

082483z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 3 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge

General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 88.79 23.290 .2894 1.81 .3394 2.027 89.27 -35.58

14.050 87.65 21.710 .2794 1.78 .3278 1.975 89.92 -32.38

14.100 86.00 20.640 .2691 1.74 .3158 1.923 90.82 -28.58

14.150 84.46 20.000 .2605 1.70 .3057 1.881 91.78 -24.84

14.200 82.40 19.790 .2511 1.67 .2949 1.836 92.70 -20.22

14.250 81.37 19.930 .2474 1.66 .2906 1.819 93.89 -16.72

14.300 80.34 20.350 .2450 1.65 .2878 1.808 95.07 -12.95

14.350 79.52 20.910 .2441 1.65 .2869 1.805 96.17 -9.20

14.400 78.49 21.670 .2436 1.64 .2863 1.802 96.97 -4.90

14.450 78.28 22.700 .2477 1.66 .2912 1.822 98.34 -1.26

14.500 78.18 23.720 .2522 1.67 .2966 1.844 99.47 2.43

14.550 78.28 25.020 .2590 1.70 .3047 1.876 100.76 6.37

14.600 78.38 26.580 .2671 1.73 .3143 1.917 101.93 10.81

14.650 79.31 28.120 .2777 1.77 .3269 1.971 103.65 14.60

14.700 80.34 29.860 .2893 1.81 .3407 2.033 105.29 18.84

14.750 82.09 31.190 .3006 1.86 .3541 2.096 107.15 22.20

14.800 83.43 33.180 .3137 1.91 .3696 2.172 108.53 27.11

14.850 85.49 33.870 .3222 1.95 .3797 2.224 109.60 29.92

14.900 87.55 35.230 .3335 2.00 .3931 2.296 110.71 33.99

14.950 90.13 36.660 .3461 2.06 .4081 2.379 112.12 38.22

15.000 92.70 38.000 .3579 2.11 .4221 2.461 112.92 42.62

082483z2.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 4 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 96.61 20.140 .3102 1.90 .3638 2.143 83.63 -43.32

14.050 94.55 17.650 .2956 1.84 .3468 2.062 84.18 -39.69

14.100 92.19 16.030 .2816 1.78 .3305 1.987 85.13 -35.85

14.150 89.10 14.980 .2652 1.72 .3113 1.904 86.08 -31.09

14.200 87.04 14.370 .2541 1.68 .2984 1.851 87.01 -27.34

14.250 84.87 14.180 .2434 1.64 .2858 1.800 87.89 -23.24

14.300 82.50 14.340 .2325 1.61 .2731 1.751 88.55 -18.64

14.350 81.37 14.980 .2291 1.59 .2692 1.737 89.89 -15.13

14.400 80.24 15.830 .2267 1.59 .2665 1.727 91.10 -11.30

14.450 78.69 16.540 .2222 1.57 .2613 1.708 91.40 -6.94

14.500 78.28 17.720 .2252 1.58 .2649 1.721 92.73 -3.34

14.550 77.87 19.180 .2298 1.60 .2703 1.741 94.00 0.73

14.600 77.77 20.550 .2356 1.62 .2773 1.767 95.10 4.59

14.650 78.07 22.050 .2438 1.64 .2870 1.805 96.40 8.40

14.700 78.59 23.880 .2544 1.68 .2996 1.855 97.87 12.64

14.750 79.52 25.420 .2650 1.72 .3121 1.907 99.20 16.42

14.800 80.44 27.090 .2760 1.76 .3252 1.964 100.21 20.59

14.850 81.89 28.890 .2890 1.81 .3406 2.033 101.57 24.82

14.900 83.43 30.540 .3013 1.86 .3551 2.101 102.50 29.02

14.950 86.01 32.110 .3156 1.92 .3722 2.185 104.42 32.92

15.000 88.07 33.530 .3275 1.97 .3862 2.258 105.04 37.05

080283z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 5 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 103.00 18.640 .3316 1.99 .3889 2.273 80.23 -48.99

14.050 99.39 15.580 .3113 1.90 .3652 2.150 81.17 -44.27

14.100 96.31 12.980 .2933 1.83 .3442 2.050 81.61 -40.08

14.150 94.25 11.450 .2814 1.78 .3303 1.987 82.47 -37.03

14.200 90.13 10.560 .2605 1.70 .3058 1.881 83.25 -31.62

14.250 87.65 10.035 .2473 1.66 .2904 1.819 83.99 -27.78

14.300 85.49 10.210 .2367 1.62 .2781 1.770 85.09 -23.94

14.350 83.43 10.660 .2271 1.59 .2668 1.728 86.07 -19.93

14.400 81.37 11.460 .2184 1.56 .2567 1.691 86.91 -15.54

14.450 80.34 12.460 .2160 1.55 .2539 1.681 88.21 -11.97

14.500 78.80 13.860 .2128 1.54 .2502 1.668 89.10 -7.34

14.550 78.18 15.260 .2149 1.55 .2528 1.677 90.33 -3.47

14.600 77.77 16.640 .2185 1.56 .2571 1.692 91.37 0.37

14.650 77.46 18.290 .2241 1.58 .2638 1.717 92.36 4.58

14.700 77.56 19.930 .2319 1.60 .2731 1.751 93.38 8.61

14.750 78.04 21.660 .2418 1.64 .2848 1.796 94.54 12.63

14.800 78.80 23.310 .2524 1.68 .2974 1.846 95.59 16.54

14.850 79.83 25.260 .2653 1.72 .3126 1.909 96.74 20.89

14.900 80.86 27.110 .2774 1.77 .3270 1.972 97.36 25.27

14.950 82.92 28.760 .2915 1.82 .3437 2.047 98.86 29.13

15.000 85.18 30.530 .3063 1.88 .3612 2.131 100.20 33.36

082483z3.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 8 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 109.70 13.860 .3494 2.07 .4098 2.388 74.16 -53.16

14.050 105.60 9.890 .3286 1.98 .3854 2.254 74.80 -48.85

14.100 101.04 6.950 .3064 1.88 .3595 2.123 75.46 -44.26

14.150 97.34 5.020 .2881 1.81 .3382 2.022 76.16 -40.42

14.200 93.73 3.870 .2701 1.74 .3172 1.929 76.93 -36.50

14.250 89.25 3.750 .2474 1.66 .2905 1.819 77.81 -31.35

14.300 86.83 3.500 .2344 1.61 .2753 1.760 78.50 -28.11

14.350 84.46 4.080 .2219 1.57 .2607 1.705 79.62 -24.45

14.400 81.89 5.190 .2086 1.53 .2452 1.650 80.67 -20.09

14.450 80.03 6.370 .1997 1.50 .2348 1.614 81.72 -16.17

14.500 78.28 7.790 .1924 1.48 .2263 1.585 82.63 -11.99

14.550 77.15 9.450 .1902 1.47 .2237 1.576 83.84 -7.98

14.600 76.22 11.160 .1902 1.47 .2239 1.577 84.85 -3.91

14.650 75.71 13.040 .1943 1.48 .2287 1.593 86.02 0.18

14.700 75.71 15.170 .2028 1.51 .2388 1.627 87.53 4.36

14.750 75.71 17.080 .2111 1.54 .2487 1.662 88.46 8.49

14.800 76.22 18.990 .2221 1.57 .2617 1.709 89.60 12.46

14.850 76.74 20.610 .2319 1.60 .2732 1.752 90.18 16.20

14.900 78.07 23.020 .2484 1.66 .2928 1.828 91.79 20.78

14.950 79.31 25.150 .2630 1.71 .3101 1.899 92.65 25.21

15.000 80.86 27.330 .2785 1.77 .3284 1.978 93.42 29.76

072083z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 10 ft, Calibrated Feed Line =
42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge
General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver
Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 106.61 9.286 .3321 1.99 .3894 2.276 71.35 -49.54

14.050 102.18 5.872 .3105 1.90 .3643 2.146 71.88 -45.34

14.100 96.92 3.546 .2853 1.80 .3348 2.007 72.47 -40.43

14.150 92.70 2.544 .2643 1.72 .3103 1.900 73.40 -36.23

14.200 88.58 2.113 .2430 1.64 .2853 1.798 74.16 -31.82

14.250 84.98 2.421 .2235 1.58 .2625 1.712 75.07 -27.50

14.300 81.89 3.007 .2063 1.52 .2424 1.640 75.84 -23.36

14.350 79.10 4.390 .1914 1.47 .2249 1.580 76.99 -18.90

14.400 76.74 5.868 .1794 1.44 .2109 1.535 77.93 -14.52

14.450 75.19 7.682 .1742 1.42 .2048 1.515 79.31 -10.46

14.500 73.64 9.655 .1710 1.41 .2011 1.503 80.38 -6.01

14.550 72.20 11.821 .1712 1.41 .2014 1.505 81.21 -1.25

14.600 71.59 14.110 .1784 1.43 .2099 1.531 82.49 3.13

14.650 71.59 16.246 .1891 1.47 .2225 1.572 83.91 7.06

14.700 71.59 18.299 .2000 1.50 .2355 1.616 84.86 11.11

14.750 72.10 20.678 .2151 1.55 .2533 1.678 86.26 15.38

14.800 72.82 23.176 .2316 1.60 .2728 1.750 87.54 19.89

14.850 74.16 25.589 .2493 1.66 .2937 1.832 89.11 24.18

14.900 75.40 27.718 .2646 1.72 .3119 1.907 89.94 28.31

14.950 76.53 30.435 .2825 1.79 .3331 1.999 90.30 33.42

15.000 78.28 32.533 .2980 1.85 .3515 2.084 90.79 37.55

082883z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 12 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 117.42 12.430 .3760 2.21 .4410 2.578 70.77 -58.39

14.050 113.09 7.150 .3559 2.11 .4175 2.434 71.15 -54.32

14.100 108.15 3.300 .3345 2.01 .3925 2.292 71.74 -50.08

14.150 103.00 0.600 .3121 1.91 .3664 2.156 72.35 -45.67

14.200 98.37 -0.951 .2913 1.82 .3420 2.039 73.09 -41.55

14.250 93.94 -1.660 .2702 1.74 .3173 1.930 73.85 -37.31

14.300 90.13 -1.820 .2510 1.67 .2948 1.836 74.58 -33.32

14.350 86.52 -1.460 .2316 1.60 .2722 1.748 75.24 -29.15

14.400 83.43 -0.521 .2142 1.55 .2518 1.673 76.08 -24.99

14.450 80.65 0.450 .1979 1.49 .2327 1.607 76.58 -20.92

14.500 78.28 1.930 .1841 1.45 .2165 1.553 77.28 -16.71

14.550 76.43 3.770 .1743 1.42 .2051 1.516 78.21 -12.47

14.600 75.19 5.820 .1699 1.41 .2000 1.500 79.39 -8.34

14.650 74.16 7.710 .1681 1.40 .1979 1.493 80.22 -4.32

14.700 73.13 10.070 .1695 1.41 .1996 1.499 80.93 0.35

14.750 72.62 12.240 .1752 1.42 .2063 1.520 81.61 4.61

14.800 72.62 14.530 .1853 1.45 .2183 1.559 82.53 8.85

14.850 72.62 16.840 .1965 1.49 .2316 1.603 82.99 13.25

14.900 73.13 19.730 .2136 1.54 .2518 1.673 83.87 18.28

14.950 74.16 21.070 .2245 1.58 .2647 1.720 84.42 21.19

15.000 75.91 24.930 .2509 1.67 .2959 1.841 86.13 27.44

071983z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 14 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 112.27 14.571 .3599 2.12 .4220 2.460 73.92 -55.35

14.050 108.15 9.751 .3387 2.02 .3973 2.319 74.20 -50.96

14.100 103.52 6.489 .3168 1.93 .3717 2.183 74.86 -46.45

14.150 98.78 2.831 .2936 1.83 .3447 2.052 74.19 -41.86

14.200 94.76 2.831 .2746 1.76 .3224 1.952 76.08 -37.67

14.250 90.64 2.470 .2539 1.68 .2981 1.850 76.93 -33.10

14.300 87.55 2.587 .2377 1.62 .2792 1.775 77.87 -29.20

14.350 84.25 3.171 .2200 1.56 .2585 1.697 78.60 -24.71

14.400 81.37 4.201 .2045 1.51 .2403 1.633 79.36 -20.19

14.450 79.31 5.723 .1945 1.48 .2287 1.593 80.57 -15.94

14.500 77.25 7.379 .1856 1.46 .2182 1.558 81.39 -11.36

14.550 76.01 9.141 .1829 1.45 .2152 1.548 82.50 -7.24

14.600 74.68 11.233 .1822 1.45 .2144 1.546 83.34 -2.51

14.650 74.26 13.515 .1889 1.47 .2223 1.572 84.80 1.86

14.700 74.16 15.646 .1977 1.49 .2327 1.607 86.06 6.06

14.750 74.16 18.441 .2110 1.53 .2485 1.661 87.43 11.21

14.800 74.37 20.068 .2201 1.56 .2592 1.700 87.82 14.93

14.850 74.68 22.357 .2332 1.61 .2748 1.758 88.28 19.54

14.900 76.12 24.631 .2500 1.67 .2946 1.835 89.76 23.76

14.950 77.25 27.023 .2660 1.72 .3137 1.914 90.35 28.43

15.000 78.38 29.667 .2830 1.79 .3338 2.002 90.42 33.51

082883z2.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 16 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 118.97 16.210 .3854 2.25 .4520 2.650 72.84 -60.71

14.050 114.85 10.320 .3648 2.15 .4280 2.497 73.13 -56.36

14.100 109.70 5.500 .3417 2.04 .4010 2.339 73.36 -51.59

14.150 105.06 2.380 .3213 1.95 .3772 2.211 73.88 -47.45

14.200 100.73 0.296 .3020 1.87 .3546 2.099 74.47 -43.53

14.250 95.48 -1.095 .2776 1.77 .3260 1.967 74.73 -38.60

14.300 91.67 -1.434 .2588 1.70 .3040 1.874 75.47 -34.63

14.350 88.07 -1.150 .2399 1.63 .2820 1.785 76.24 -30.46

14.400 85.28 -0.556 .2246 1.58 .2640 1.717 77.09 -26.73

14.450 82.40 0.346 .2082 1.53 .2448 1.648 77.65 -22.58

14.500 78.80 2.170 .1874 1.46 .2204 1.566 77.90 -16.98

14.550 77.25 3.940 .1796 1.44 .2113 1.536 79.07 -13.02

14.600 75.40 6.030 .1716 1.41 .2020 1.506 79.76 -8.30

14.650 74.26 8.120 .1698 1.41 .1999 1.500 80.63 -3.97

14.675 73.95 9.270 .1715 1.41 .2019 1.506 81.25 -1.81

14.700 73.13 10.480 .1710 1.41 .2013 1.504 81.21 0.82

14.750 72.51 12.810 .1770 1.43 .2085 1.527 81.83 5.36

14.800 72.51 15.140 .1877 1.46 .2211 1.568 82.72 9.67

14.850 72.51 16.770 .1957 1.49 .2306 1.600 82.82 13.21

14.900 73.13 19.500 .2124 1.54 .2503 1.668 83.78 17.98

14.950 74.16 23.010 .2349 1.61 .2770 1.766 84.97 23.80

15.000 75.40 26.200 .2562 1.69 .3022 1.866 85.67 29.27

071783z1.dat

20-Meter Dipole, Length = 32.33 ft, HEIGHT = 22 ft, Calibrated Feed Line = 42.25 feet (40 feet RG-58 + balun of 2-ft RG-141 w/100 No.73 beads, RF Bridge General Radio GR-1606-A, Signal Generator Ferris Microvolter 70B, Receiver Collins 75A-4.

TRANSFORMING Zi = Ri+jXi MEASURED AT LINE INPUT TO ZL = RL+jXL AT LOAD

FEED LINE CALIBRATION:

LINE-LENGTH IN DEGREES/MHZ, PHI = 23.72

LINE ATTENUATION IN DB/SQR(MHZ), A = .185

LINE IMPEDANCE, ZC = 54

F Ri Xi RHOi SWRi RHO L SWR L RL XL

14.000 123.60 23.710 .4104 2.39 .4813 2.856 75.90 -66.80

14.050 120.51 15.800 .3901 2.28 .4577 2.688 75.51 -62.12

14.100 117.42 10.990 .3747 2.20 .4397 2.570 76.32 -58.76

14.150 112.27 6.042 .3521 2.09 .4133 2.409 76.52 -53.83

14.200 108.15 2.460 .3343 2.00 .3925 2.292 76.73 -50.01

14.250 103.00 0.281 .3121 1.91 .3666 2.157 77.29 -45.27

14.300 98.37 -1.119 .2913 1.82 .3422 2.040 77.70 -40.79

14.400 90.13 -1.701 .2509 1.67 .2949 1.837 78.53 -31.85

14.500 84.98 -0.345 .2229 1.57 .2621 1.711 80.19 -24.33

14.600 80.03 2.843 .1953 1.49 .2298 1.597 81.48 -15.04

14.700 77.25 6.803 .1843 1.45 .2170 1.554 83.16 -6.11

14.750 76.22 9.966 .1865 1.46 .2196 1.563 84.39 -0.33

```
14.800 75.91 11.486 .1897 1.47 .2235 1.576 84.87 3.29

14.850 76.22 14.141 .2011 1.50 .2369 1.621 86.30 8.09

14.900 76.22 16.640 .2115 1.54 .2493 1.664 86.73 13.02

14.950 76.74 19.197 .2252 1.58 .2655 1.723 87.30 17.92

15.000 78.28 21.400 .2415 1.64 .2849 1.797 88.62 22.18
```

1576. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 03:22:50 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <jKLte.12387$wm2.10156@fe05.lga>
Source record: 74542

Reg, to answer your request to put my data in a format useable in an email without attaching a file, I found a way to convert the data to a text file. Consequently, I uploaded the entire data file in the preceding thread, Antenna Impedance Measurements. Please look for it there.

Walt

1577. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 03:32:24 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <gTLte.12433$wm2.8859@fe05.lga>
Source record: 74543

Reg, I goofed. The antenna impedance data in text format went into this thread by mistake instead of into the Antenna Measurements thread.

Unfortunately, the tabular integrity is not as good as with the PDF file. I hope you can decipher it.

Walt, W2DU

1578. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 04:08:01 UTC
From: Owen <none@no.where>
Message-ID: <BoMte.24703$F7.8517@news-server.bigpond.net.au>
Source record: 74544

Frank wrote:
...
> Using NEC 2 I found out, the hard way, that maximum pick-up takes place off
> the ends of the loop. Given these constraints: With a field strength of
> 5.5 V/m, the voltage across the 50 Ohm resistor is 0.091 V RMS, or an
> antenna factor of 35.1 dB. Within 0.4 dB of Owen's results.
>

I have modified my EZNEC model to irrradiate the loop from an exciter dipole at some distance. I have tried it with the exciter at 100m and 200m distance, I get AF=35.69 and 35.72 dB respectively (against 36.1 from the Mathcad model). I note that if you report on the so called near field values too close to the loop, the results are effected by the loop.

I note that the Matchcad model estimates the inductance slightly higher than EzNEC, and others have suggested to me that the Lw term in the Matchcad model is a double up, that the Ll term fully accounts for the inductance of the loop. Removal of the Lw term results in an AF of 35.8dB, which is closer to the EzNEC prediction.

Has anyone views of whether Lw should not be included?

The currents in my model vary slightly, here is the current report:

Frequency = 7.1 MHz

Wire No. 1:
Segment Conn Magnitude (A.) Phase (Deg.)
1 W4E2 4.0E-6 -137.0
2 4.0E-6 -137.7
3 4.0E-6 -138.1
4 4.0E-6 -138.4
5 4.0E-6 -138.5
6 4.0E-6 -138.4
7 4.0E-6 -138.1
8 4.0E-6 -137.5
9 W2E1 4.0E-6 -136.8

Wire No. 2:
Segment Conn Magnitude (A.) Phase (Deg.)
1 W1E2 4.1E-6 -136.0
2 4.1E-6 -135.1
3 4.1E-6 -134.2
4 4.1E-6 -133.4
5 4.2E-6 -132.5
6 4.2E-6 -131.7

7 4.2E-6 -130.8
8 4.3E-6 -130.0
9 W3E1 4.3E-6 -129.2

Wire No. 3:
Segment Conn Magnitude (A.) Phase (Deg.)
1 W2E2 4.3E-6 -128.4
2 4.3E-6 -127.8
3 4.4E-6 -127.4
4 4.4E-6 -127.2
5 4.4E-6 -127.1
6 4.4E-6 -127.2
7 4.4E-6 -127.4
8 4.3E-6 -127.9
9 W4E1 4.3E-6 -128.5

Wire No. 4:
Segment Conn Magnitude (A.) Phase (Deg.)
1 W3E2 4.3E-6 -129.3
2 4.3E-6 -130.1
3 4.2E-6 -130.9
4 4.2E-6 -131.8
5 4.2E-6 -132.6
6 4.1E-6 -133.5
7 4.1E-6 -134.3
8 4.1E-6 -135.2
9 W1E1 4.1E-6 -136.1

Owen

1579. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 04:26:43 UTC
From: richardharrison@webtv.net
Message-ID: <16275-42B79703-830@storefull-3252.bay.webtv.net>
Source record: 74546

Walter Maxwell, W2DU wrote:
"Do you think any soil characteristics could be determined by such data?"

Kraus has an interesting figure, No. 11-20 on page 305 of his 1950 edition of "Antennas". It is the feedpoint resistance versus height in wavelengths over perfect ground (a copper sheet?) of a resonant 1/2-wave dipole.

It varies from zero ohms at zero height to a maximum of about 100 ohms at 0.35 wavelength above ground. The resistance settles down to just above 70 ohms at infinite height (free space radiation resistance value).

Clean dry sand may be a very good insulator. If it were deep enough, a dipole lain on it might have a feedpoint of about 70 ohme. Better soil conductivity might shift the drivepoint of the dipole to a lower resistance as the Kraus figure indicates for perfect ground next to the dipole.

Several measurements at slightly different locations and times may need to be made and averaged for reliable results. The curve in Fig. 11-20 oscillates around the free space radiation resistance so that at some altitudes feedpoint resistance goes down as altitude increases. One would need to know which part of the curve the measured resistance fell upon.

Walt may be on to something with his method for determining earth constants. There are so many broadcast stations in the USA that soil conductivity has been already determined in nearly all areas. For unknown areas, one could lay out radial paths from existing stations and measure feild strengths along the radial at several places and see how much more attenuation there is versus the "unattenuated" values expected and determine average ground conductivity by the loss added by the ground.

Best regards, Richard Harrison, KB5WZI

1580. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 04:33:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bf645tm4kvjf4@corp.supernews.com>
Source record: 74545

Fred W4JLE wrote:
> It would be interesting to recreate the measurements at other locations. My
> location has 500 feet of sand below me. It would be a great improvement just
> to have poor soil.

Depends on your objective. For NVIS operation with a horizontal antenna, where you need the reflection, that's probably true. But for a vertical or for DX with a horizontal antenna, you're better off with the sand. Perfect ground has no loss; free space has no loss. There's an intermediate quality of ground at which the loss is maximum at a given frequency. Unfortunately, this happens to be in the range of ordinary ground characteristics in the HF range. Your ground should be very low loss. And your pattern should resemble free space, with a very strong field at very low radiation angles.

Roy Lewallen, W7EL

1581. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 06:16:05 UTC
From: radio913@aol.com
Message-ID: <1119334565.817561.82300@f14g2000cwb.googlegroups.com>
Source record: 74547

Richard Clark wrote:
> On 20 Jun 2005 09:24:22 -0700, radio913@aol.com wrote:
>
> > Even if Zo=50+j2,
> If? Still some doubt after a plunge of 12 orders of magnitude:
> >>If Zo=50+j0.000000000001
> Lower precision If's still yield the same logical contradiction to:
> >> then it's close enough!
>
> > then the VSWR will still be very close to a 1:1 match.
> The significant "if" is in your capacity to demonstrate
> > Even if Zo=50+j2,
>
> > You antenna boys don't build too many
> >power amplifiers, obviously.
>
> Well, looking at the group title, it does not reveal rec.*.amplifiers,
> does it? And you have no credentials to speak of, unless selling to
> naifs, like selling dope to school children, falls into the same proof
> of authority.
>

Oh wait a minute, you're one
of the ham radio guys, right?

That certainly explains a lot!

S.

1582. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 06:50:33 UTC
From: Owen <none@no.where>
Message-ID: <ZMOte.24771$F7.11558@news-server.bigpond.net.au>
Source record: 74548

I have written a deck for NEC2 which uses and incident plane wave as the excitation scenario.

The deck:

```
CMSmall square untuned loop
CMEXTENDED THIN WIRE KERNEL USED
CM1. FREE SPACE
CE2. Plane wave excitation
GW 1 9 -0.25 0 1 -0.25 0 1.5 .0007
GW 2 9 -0.25 0 1.5 +0.25 0 1.5 .0007
GW 3 9 +0.25 0 1.5 +0.25 0 1 .0007
GW 4 9 +0.25 0 1 -0.25 0 1 .0007
GE 1
EK
FR 0 1 0 0 7.1
EX 1 1 1 0 90 0 0 0 0 0
LD 4 1 1 1 50 0
GN -1
XQ
EN
```

I get an antenna factor of 35.8dB/m by multiplying the current in wire 1, seg 1 (the location of the 50 ohm load) by 50 ohms, and taking -20*log of that voltage.

Owen

PS: This won't work if you are working with one of the original column formatted Fortran inputs, but it does work with nec2++ (http://www.si-list.org/NEC_Archives/swindex.html)

1583. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 06:58:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9vcfb1d66m1ni1afdkflqu092gn490qja0@4ax.com>
Source record: 74549

On Mon, 20 Jun 2005 23:02:27 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> >PHOOEY !
>>
>> Yeah, but you heard it from me first. :-0
>
>============================
>You are not so clever.
>
>You didn't detect my deliberate mistake.
>
>Ah well, I suppose I shall have to tell you.
>
>Soil constants are not constant.
>
>Wanna make a bet you don't have the last say?
>
>Punchinello

Ah Punchinello!

No, I am not clever at all. You can chalk that one up to charity.

You are certainly entitled to the last say -
"put some dirt in it and say Amen."
(John Wayne in "Red River" an example of high conductance earth of the
Texas panhandle country.)

73's
Richard Clark, KB7QHC

1584. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 07:09:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <enefb1936tm0a2u05kql7lmmsu1fj1jfup@4ax.com>
Source record: 74550

On 20 Jun 2005 23:16:05 -0700, radio913@aol.com wrote:

> Oh wait a minute, you're one
>of the ham radio guys, right?

Flash of insight, that.

> That certainly explains a lot!

Must've been a brutal education. Think of the learning grade to climb
Ohm's law.

73's
Richard Clark, KB7QHC

1585. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 07:20:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pmffb1p1cl9mbh3iou7i640tqgkemlhqch@4ax.com>
Source record: 74551

On Mon, 20 Jun 2005 23:17:40 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Hi All,
>
>Reg asked if I could send my data as an email, so I converted the file to text
>format to be able to present the data in full here in this msg.
>
>I checked to see that the tabular format remained intact, and it did in Outlook
>Express, so here it is. I hope the tabular format will remain intact in your
>browsers. Be sure to give your screen maximum width. If it doesn't, let me know
>and I'll resend in PDF format.
>
>I'd like to hear your comments.

Hi Walt,

Thanx big time for this work of dedication. I have other projects to
attend to, but I am sure looking forward to close examination of this
trove of data by hunkering down with Mathcad and casting up some
charts. Hope to do that within the week if not sooner.

73's
Richard Clark, KB7QHC

1586. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 10:09:26 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1119348566.543100.318320@g47g2000cwa.googlegroups.com>
Source record: 74552

I agree.

You could also try:

wireless.ictp.it/school_2005/ download/nec2/nec_part1.pdf
wireless.ictp.it/school_2005/ download/nec2/nec_part2.pdf
wireless.ictp.it/school_2005/ download/nec2/nec_part3.pdf
wireless.ictp.it/school_2005/ download/nec2/nec_part4.pdf

Arie.

1587. Hy-Tower on 160

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 11:09:02 UTC
From: Larry N8KU <listacct@longwire.com>
Message-ID: <tr2dnRIQQNqFaCrfRVn-sg@bright.net>
Source record: 74553

Hi guys.

I have a Hy-Tower, with the 160m add-on inverted-L. It has never loaded up well, even when it was working properly, the best I could get was 3:1 at 1840 KHz.

Now, it has gotten worse, (water in the trap?) and I am re-thinking the situation. Is there any reason why I shouldn't just forget the trap, and attach the inverted-L wire at the base, and then just use an insulator near the top to hold it up?

This would be essentially a second antenna, a few inches from the first. It may cause a change in the loading on 80 or 40, but nothing that my tuner can't handle.

Ideas? Suggestions?

Larry DiGioia N8KU

1588. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 12:47:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b80d63$1_1@spool9-west.superfeed.net>
Source record: 74554

Tim Wescott wrote:
> All this is covered in a good college E&M course.

Do "good college E&M courses" cover the conservation of
energy principle applied to canceled EM waves? That topic
seems to be a black hole in the education of the average
electrical engineer.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1589. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 13:40:51 UTC
From: richardharrison@webtv.net
Message-ID: <25289-42B818E3-1058@storefull-3251.bay.webtv.net>
Source record: 74555

Ian White, GM3SEK wrote:
"But here you pick up the pace. Instead of the detailed argument above, suddenly whole chapters rush by in a single sentence."

Fair criticism. It reflects tiring of posting before its conclusion.

The Bird wattmeter`s firectional coupler distinguishes between incident and reflected waves by their singular difference. Upon reflection of a wave, either the voltage or the current it generates is reversed in phase, but not both.

Bird takes equal samples of voltage and current from the wave.. When there has been a reflection, the samples have opposite polarity and cancel. When there has been no reflection the samples from that direction of travel are in-phase and the sample total is double the contribution of either sample.

To determine reverse power flow, the polarity of one of the samples is reversed.

You don`t need to know how it works to use it and Bird never advertised how simple it is as far as I know.

Best regards, Richard Harrison, KB5WZI

1590. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 14:44:42 UTC
From: radio913@aol.com
Message-ID: <1119365082.741190.136740@g43g2000cwa.googlegroups.com>
Source record: 74556

Richard Clark wrote:
> On 20 Jun 2005 23:16:05 -0700, radio913@aol.com wrote:
>
> > Oh wait a minute, you're one
> >of the ham radio guys, right?
>
> Flash of insight, that.
>

Yeah...I guess those funny
little numbers and letters you have
by your name might have something to
do with it...hmmmmm....

> > That certainly explains a lot!
>
> Must've been a brutal education. Think of the learning grade to climb
> Ohm's law.
>
> 73's
> Richard Clark, KB7QHC

Speaking of "grade", you write
like you're in the 2nd or 3rd.

S.

1591. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 14:53:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b82af8$1_2@spool9-west.superfeed.net>
Source record: 74557

Richard Harrison wrote:
> Ian White, GM3SEK wrote:
> "But here you pick up the pace. Instead of the detailed argument above,
> suddenly whole chapters rush by in a single sentence."
>
> Fair criticism. It reflects tiring of posting before its conclusion.
>
> The Bird wattmeter`s firectional coupler distinguishes between incident
> and reflected waves by their singular difference. Upon reflection of a
> wave, either the voltage or the current it generates is reversed in
> phase, but not both.
>
> Bird takes equal samples of voltage and current from the wave.. When
> there has been a reflection, the samples have opposite polarity and
> cancel. When there has been no reflection the samples from that
> direction of travel are in-phase and the sample total is double the
> contribution of either sample.

Bird assumes the wave reflection model is valid, i.e.
Vsample proportional to Vtotal = vector sum of (Vfor+Vref)
Isample proportional to Itotal = vector sum of (Ifor+Iref)
Vfor in phase with Ifor, RMS Vfor/Ifor = 50 ohms, Vfor*Ifor=Pfor
Vref 180 deg out of phase with Iref, RMS Vref/Iref = 50 ohms
Vref*Iref=Pref

These assumptions are valid for a 50 ohm feedline of reasonable
length.

These assumptions are obviously not valid if no feedline exists
or if Z0 is not 50 ohms, which is, as I infer, Ian's objection.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1592. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 14:56:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b82ba7$1_2@spool9-west.superfeed.net>
Source record: 74558

Richard Harrison wrote:
> Ian White, GM3SEK wrote:
> "But here you pick up the pace. Instead of the detailed argument above,
> suddenly whole chapters rush by in a single sentence."
>
> Fair criticism. It reflects tiring of posting before its conclusion.
>
> The Bird wattmeter`s firectional coupler distinguishes between incident
> and reflected waves by their singular difference. Upon reflection of a
> wave, either the voltage or the current it generates is reversed in
> phase, but not both.
>
> Bird takes equal samples of voltage and current from the wave.. When
> there has been a reflection, the samples have opposite polarity and
> cancel. When there has been no reflection the samples from that
> direction of travel are in-phase and the sample total is double the
> contribution of either sample.

Bird assumes the wave reflection model is valid, i.e.
Vsample proportional to Vtotal = vector sum of (Vfor+Vref)
Isample proportional to Itotal = vector sum of (Ifor+Iref)
Vfor in phase with Ifor, RMS Vfor/Ifor = 50 ohms, Vfor*Ifor=Pfor
Vref 180 deg out of phase with Iref, RMS Vref/Iref = 50 ohms
Vref*Iref=Pref

These assumptions are valid for a 50 ohm feedline of reasonable
length.

These assumptions are obviously not valid if no feedline exists
or if Z0 is not 50 ohms, which is, as I infer, Ian's objection.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1593. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:14:44 UTC
From: Dan Richardson <k6mhe>
Message-ID: <ecbgb1p6jpufvmp2mmmubn2mv98hcsnepp@4ax.com>
Source record: 74559

On 21 Jun 2005 03:09:26 -0700, "Arie" <4nec2@gmx.net> wrote:

>You could also try:
>
>wireless.ictp.it/school_2005/ download/nec2/nec_part1.pdf
>wireless.ictp.it/school_2005/ download/nec2/nec_part2.pdf
>wireless.ictp.it/school_2005/ download/nec2/nec_part3.pdf
>wireless.ictp.it/school_2005/ download/nec2/nec_part4.pdf
>
>Arie.

Thanks Arie,

I experienced a little difficulty with the links (my browser kept
trying to insert the "www." and, of course, that won't work.)

Here's what worked for me.

http://wireless.ictp.it/school_2005/download/nec2/nec_part1.pdf
http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
http://wireless.ictp.it/school_2005/download/nec2/nec_part4.pdf

73,
Danny, K6MHE

1594. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:31:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ZoWte.12478$wm2.8813@fe05.lga>
Source record: 74560

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:16275-42B79703-830@storefull-3252.bay.webtv.net...
> Walter Maxwell, W2DU wrote:
> "Do you think any soil characteristics could be determined by such
> data?"
>
> Kraus has an interesting figure, No. 11-20 on page 305 of his 1950
> edition of "Antennas". It is the feedpoint resistance versus height in
> wavelengths over perfect ground (a copper sheet?) of a resonant 1/2-wave
> dipole.
>
> It varies from zero ohms at zero height to a maximum of about 100 ohms
> at 0.35 wavelength above ground. The resistance settles down to just
> above 70 ohms at infinite height (free space radiation resistance
> value).
>
> Clean dry sand may be a very good insulator. If it were deep enough, a
> dipole lain on it might have a feedpoint of about 70 ohme. Better soil
> conductivity might shift the drivepoint of the dipole to a lower
> resistance as the Kraus figure indicates for perfect ground next to the
> dipole.
>
> Several measurements at slightly different locations and times may need
> to be made and averaged for reliable results. The curve in Fig. 11-20
> oscillates around the free space radiation resistance so that at some
> altitudes feedpoint resistance goes down as altitude increases. One
> would need to know which part of the curve the measured resistance fell
> upon.
>
> Walt may be on to something with his method for determining earth
> constants. There are so many broadcast stations in the USA that soil
> conductivity has been already determined in nearly all areas. For
> unknown areas, one could lay out radial paths from existing stations and
> measure feild strengths along the radial at several places and see how
> much more attenuation there is versus the "unattenuated" values expected
> and determine average ground conductivity by the loss added by the
> ground.
>
> Best regards, Richard Harrison, KB5WZI

Richard, your indication that the dipole input resistance of 100 ohms at 0.35 wavelength above ground is interesting, in that if you look at Kraus' graph of mutual impedance of parallel side-by-side radiators in his Fig 10-12, Page 266, you can see the reason for this.

At this height above ground the the dipole is spaced 0.7 wavelengths from its image in the perfect ground plane. The mutual resistance at this spacing is -24.8 ohms, as shown in Fig 10-12 and in Table 10-1 on Page 267. Table 10-1 also shows the self resistance minus the mutual resistance at this spacing to be 97.9 ohms. There is the approximate 100 ohms shown in the graph of Fig 11-20. Note that 97.9 - 24.8 = 73.1 ohms, the nominal resistance of a thin half-wave dipole in space.

Of course this data relates only to the condition of perfect ground, with total reflection and no attenuation. I would hope that the delta R and delta X values vs height taken from my measured data might shed some light on the ground conductivity and permittivity under my antenna. My soil is very sandy. Knowing that, the delta values might show some tendency to verify that condition.

Walt, W2DU

1595. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:37:57 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <qvWte.12479$wm2.9407@fe05.lga>
Source record: 74561

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:pmffb1p1cl9mbh3iou7i640tqgkemlhqch@4ax.com...
> On Mon, 20 Jun 2005 23:17:40 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>>Hi All,
>>
>>Reg asked if I could send my data as an email, so I converted the file to text
>>format to be able to present the data in full here in this msg.
>>
>>I checked to see that the tabular format remained intact, and it did in
>>Outlook
>>Express, so here it is. I hope the tabular format will remain intact in your
>>browsers. Be sure to give your screen maximum width. If it doesn't, let me
>>know
>>and I'll resend in PDF format.
>>
>>I'd like to hear your comments.
>
> Hi Walt,
>
> Thanx big time for this work of dedication. I have other projects to
> attend to, but I am sure looking forward to close examination of this
> trove of data by hunkering down with Mathcad and casting up some
> charts. Hope to do that within the week if not sooner.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

Thanx big time for considering my data worthy of your time for further examination. You've already made me anxious to see what interesting results might come from your delving into my data with Mathcad.

Walt

1596. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:45:09 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <9CWte.357$al.63@trnddc07>
Source record: 74562

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:ecbgb1p6jpufvmp2mmmubn2mv98hcsnepp@4ax.com...
> On 21 Jun 2005 03:09:26 -0700, "Arie" <4nec2@gmx.net> wrote:
>
>>You could also try:
>>
>>wireless.ictp.it/school_2005/ download/nec2/nec_part1.pdf
>>wireless.ictp.it/school_2005/ download/nec2/nec_part2.pdf
>>wireless.ictp.it/school_2005/ download/nec2/nec_part3.pdf
>>wireless.ictp.it/school_2005/ download/nec2/nec_part4.pdf
>>
>>Arie.
>
> Thanks Arie,
>
> I experienced a little difficulty with the links (my browser kept
> trying to insert the "www." and, of course, that won't work.)
>
> Here's what worked for me.
>
> http://wireless.ictp.it/school_2005/download/nec2/nec_part1.pdf
> http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
> http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
> http://wireless.ictp.it/school_2005/download/nec2/nec_part4.pdf
>
>
>
> 73,
> Danny, K6MHE

Thanks Dan

I wasnt able to do what you did to obtain the site. I sure appreciate
your making it easy for me.

Jerry (KD6JDJ)

1597. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:49:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jddgb159kgqlh199ab91adgmvbumr84132@4ax.com>
Source record: 74564

On Tue, 21 Jun 2005 11:37:57 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Thanx big time for considering my data worthy of your time for further
>examination. You've already made me anxious to see what interesting results
>might come from your delving into my data with Mathcad.

Hi Walt,

Even on simple examination, it proves useful. It obviously exhibits
the wire wavelength altering effect of the proximity of earth. This
is something Reg has harped on for years and which he curiously
rejects as being incapable of demonstration in just such as your data.

Perhaps this curious twist is explainable. There seems to be a new
vogue of posting errant hypothesis these days so the authors can prove
themselves wrong. I've seen three such admissions in just the last
week.

73's
Richard Clark, KB7QHC

1598. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:49:56 UTC
From: Dan Richardson <k6mhe>
Message-ID: <eldgb1hak9pvehltv417vs0u79mbfmu5b1@4ax.com>
Source record: 74563

Whoops, typo in one of the links. Here they are with the correction:

http://wireless.ictp.it/school_2005/download/nec2/nec_part1.pdf
http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
http://wireless.ictp.it/school_2005/download/nec2/nec_part3.pdf
http://wireless.ictp.it/school_2005/download/nec2/nec_part4.pdf

Sorry about that.

Danny, K6MHE

On Tue, 21 Jun 2005 08:14:44 -0700, Dan Richardson
<k6mhe<at>arrl<dot>net> wrote:

>On 21 Jun 2005 03:09:26 -0700, "Arie" <4nec2@gmx.net> wrote:
>
>>You could also try:
>>
>>wireless.ictp.it/school_2005/ download/nec2/nec_part1.pdf
>>wireless.ictp.it/school_2005/ download/nec2/nec_part2.pdf
>>wireless.ictp.it/school_2005/ download/nec2/nec_part3.pdf
>>wireless.ictp.it/school_2005/ download/nec2/nec_part4.pdf
>>
>>Arie.
>
>Thanks Arie,
>
>I experienced a little difficulty with the links (my browser kept
>trying to insert the "www." and, of course, that won't work.)
>
>Here's what worked for me.
>
>http://wireless.ictp.it/school_2005/download/nec2/nec_part1.pdf
>http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
>http://wireless.ictp.it/school_2005/download/nec2/nec_part2.pdf
>http://wireless.ictp.it/school_2005/download/nec2/nec_part4.pdf
>
>
>
>73,
>Danny, K6MHE

1599. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 15:50:07 UTC
From: TomS <nobody@home.com>
Message-ID: <d99cvf$le8$1@avnika.corp.mot.com>
Source record: 74567

Or get the whole sh-bang here
http://wireless.ictp.it/school_2005/download/nec2/

"Arie" <4nec2@gmx.net> wrote in message
news:1119348566.543100.318320@g47g2000cwa.googlegroups.com...
> I agree.
>
> You could also try:
>
> wireless.ictp.it/school_2005/ download/nec2/nec_part1.pdf
> wireless.ictp.it/school_2005/ download/nec2/nec_part2.pdf
> wireless.ictp.it/school_2005/ download/nec2/nec_part3.pdf
> wireless.ictp.it/school_2005/ download/nec2/nec_part4.pdf
>
> Arie.
>

1600. Bugcatcher antennas/messin' in the shop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 16:00:08 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <FNWte.152107$J25.111126@bignews6.bellsouth.net>
Source record: 74565

While I build the Carolina Cyclone screwdriver antennas (hobby as well as a bit of profit), I recently realized that there is still a little market for the tap-tuned and/or single band bugcatcher antennas. Some of us don't want or need a screwdriver antenna, perhaps, aren't willing to spend the money for screwdrivers, or only hang out on one or two--maybe 3--frequencies. So I started building
the Cyclone Juniors---Models 8010 and 4010, the numbers obviously being the bands they cover. They are semi-open coil forms made of hard, black nylon, hollowed inside for weight reduction with open grooves the length of the coil to allow clips to be placed at various points on the coil (similar to the old Texas Bugcatcher) for attaching wander leads. These antennas are to be center-loaded with a 2-3 foot mast and a 5-6 foot whip. An impedance coil is included for matching. If someone wants a longer mast (these MUST be secured just like a screwdriver about 1/2 way up the mast due to wind loading), you may specify such up to 6' at no extra charge. Prices are reasonable, too, at $89.95 for the 4010 and $109.95 for the 8010. Includes wander leads and alligator clips for tapping coils.

Also, if you don't like the wander lead (I, too, think they are ugly) hanging out there in the breeze, you can order the coils with banana-style plugs on the bottom of the coil.
This is so you can pre-tune your coil for up to 8 bands/frequencies by "plugging in" to a pre-tuned tap on the coil. This eliminates the ugly wander lead and also allows one to install a weather cover to keep out rain and ice. Either sked 20 PVC is offered or 1/8" wall Lexan clear. Both make for an attractive installation. This option is $25.00.

Again, I am just a retired fella tinkering around in my shop. Antennas are one of my hobbies, and I just thought it might be of interest to others. If anyone is interested in the Cyclone Junior, just email or go thru the screwdriver
website at QSL. The bugcatchers have not appeared on any website yet, but it there is interest in these antennas, they will.

73

Jerry
K4KWH

www.qsl.net/k4kwh

1601. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 16:02:46 UTC
From: richardharrison@webtv.net
Message-ID: <18548-42B83A26-1020@storefull-3256.bay.webtv.net>
Source record: 74566

Ian White, GM3SEK wrote:
"It had been correct, when they incorrectly revised it (the conjugate reference), now it has been corrected again."

Hope they got it right this time.

My dictionary says: "conjugate - Either of a pair of complex numbers that are mutually related in that their real parts are identical and the imaginary part of one is the negative of the imaginary part of the other.

We find maximum power transfer requires equal resistances in source and load. Also reactance, if any, be tuned out of the circuit. This is a conjugate match, such that source and load are conjugates by the dictionary definition.

Many texts go into detail. I like the story of conjugates given in "Transmission Lines, Antennas, and Wave Guides", If it were at hand, I would quote from it. Found it. See page 43. The authors are King, Mimno, and Wing.

Best regards, Richard Harrison, KB5WZI

1602. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 17:46:39 UTC
From: richardharrison@webtv.net
Message-ID: <22487-42B8527F-257@storefull-3253.bay.webtv.net>
Source record: 74568

Walter Maxwell, W2DU wrote:
"At this height above ground (0.35 wavelength) the dipole is spaced 0.7 wavelength from its image in the perfect ground plane."

I accept that, but cannot reconcile page and figure numbers. I have only the 1950 and 2003 editions of "Antennas". They are prticeless to me though I`m not as familiar with them as I am with Terman.

I suggested determining ground resistance by the attenuation it adds to the ground wave. I neglected to say that the time to do so would be when sky wave propagation was small to none. Midday when using medium wave signals for signal strength measurements unless the measurement sites were close enough to the transmitter to make sky wave unimportant. I used to make medium wave broadcast station monitoring point field strength measurements within a few miles from the station, daytime, nighttime, or anytime because at this short range there is no chance of sky wave interference. You would be much more considerate of the time of day 200 miles from the station. If HF signal attenuation versus distance from the transmitter is used to determine earth resistance, for practical purposes ground wave propagation is nearly negligible, especially at the high end of the HF spectrum. I believe B, L, and E. used 3 MHz which produces some ground wave.

Best regards, Richard Harrison, KB5WZI

1603. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 18:23:31 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4c3bd$42b85b3f$97d55d24$14608@ALLTEL.NET>
Source record: 74570

Anecdotally, I have noticed, I have no problem working Europe, ZS, VK, and ZL on 75 running 90 watts. I am typically 5-9 or better in to Great Britain. My antenna is 38 feet in the center and 20 feet on both ends. Actually I have two 132 foot dipoles that are orientated 90 degrees from each other. They share a common relay box for switching in additional ladderline. That is the input to the relay box is selected by a separate relay. The unused antenna is grounded. I have tried it both grounded and ungrounded and it "seems" to be better when the unused antenna is grounded.

My next set of relays will tie them both together as a big capacity hat on 160. Have not got around to doing it yet.

I can push a 10 foot ground rod into the ground by hand. If I don't wet it down, I can rotate it by hand when it is 9.75 feet in the ground. If a rabbit gets in the garden, one is in dire straits trying to find a rock to throw at it.

A sand pit down the road from me is over 200 feet deep and they have not hit anything other than sand in over 20 years of digging.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11bf645tm4kvjf4@corp.supernews.com...
> Fred W4JLE wrote:
> > It would be interesting to recreate the measurements at other locations.
My
> > location has 500 feet of sand below me. It would be a great improvement
just
> > to have poor soil.
>
> Depends on your objective. For NVIS operation with a horizontal antenna,
> where you need the reflection, that's probably true. But for a vertical
> or for DX with a horizontal antenna, you're better off with the sand.
> Perfect ground has no loss; free space has no loss. There's an
> intermediate quality of ground at which the loss is maximum at a given
> frequency. Unfortunately, this happens to be in the range of ordinary
> ground characteristics in the HF range. Your ground should be very low
> loss. And your pattern should resemble free space, with a very strong
> field at very low radiation angles.
>
> Roy Lewallen, W7EL

1604. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 18:24:27 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <wXYte.4713$mD6.690@fe07.lga>
Source record: 74569

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:22487-42B8527F-257@storefull-3253.bay.webtv.net...
> Walter Maxwell, W2DU wrote:
> "At this height above ground (0.35 wavelength) the dipole is spaced 0.7
> wavelength from its image in the perfect ground plane."
>
> I accept that, but cannot reconcile page and figure numbers. I have only
> the 1950 and 2003 editions of "Antennas". They are prticeless to me
> though I`m not as familiar with them as I am with Terman.
>
> I suggested determining ground resistance by the attenuation it adds to
> the ground wave. I neglected to say that the time to do so would be when
> sky wave propagation was small to none. Midday when using medium wave
> signals for signal strength measurements unless the measurement sites
> were close enough to the transmitter to make sky wave unimportant. I
> used to make medium wave broadcast station monitoring point field
> strength measurements within a few miles from the station, daytime,
> nighttime, or anytime because at this short range there is no chance of
> sky wave interference. You would be much more considerate of the time of
> day 200 miles from the station. If HF signal attenuation versus distance
> from the transmitter is used to determine earth resistance, for
> practical purposes ground wave propagation is nearly negligible,
> especially at the high end of the HF spectrum. I believe B, L, and E.
> used 3 MHz which produces some ground wave.
>
> Best regards, Richard Harrison, KB5WZI
>
Richard, I don't understand why you can't reconcile the Page numbers. I have the
same editions of Kraus as you, but the edition of Kraus I'm referencing is
the1950, the same as yours.

Walt

1605. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 19:43:49 UTC
From: richardharrison@webtv.net
Message-ID: <12807-42B86DF5-921@storefull-3258.bay.webtv.net>
Source record: 74572

Walter, W2DU wrote:
"Richard, I don`t understamd why you can`t reconcile the page numbers."

I don`t understand either, but it may be blindness and senility. Now,
I`ve found everything fight where Walt said it would be!

Best regards, Richard Harrison, KB5WZI

1606. Have you tried online poker?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 19:46:20 UTC
From: Saxo <saxo@sdf.lonestar.org>
Message-ID: <42b86e8d$1@news.broadpark.no>
Source record: 74571

This link will give you a 25$ extra as a great bonus on your first deposit at Party Poker which is the largest online poker room. You can also play with play money until you are confident that you will make money on your poker play.

http://saxo.freeshell.org/

1607. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:00:12 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <yd%te.5678$xm1.4975@fe06.lga>
Source record: 74573

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:12807-42B86DF5-921@storefull-3258.bay.webtv.net...
> Walter, W2DU wrote:
> "Richard, I don`t understamd why you can`t reconcile the page numbers."
>
> I don`t understand either, but it may be blindness and senility. Now,
> I`ve found everything fight where Walt said it would be!
>
> Best regards, Richard Harrison, KB5WZI
>
Richard, that's called a 'senior moment'. Except when I do it they tell me it's
my Alzheimer's Syndrome raising its ugly head.

Walt

1608. wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:12:51 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1119388371.513289.55030@g44g2000cwa.googlegroups.com>
Source record: 74574

i have a cable that is used as a wire antenna, how to mount it on a pcb, the inner conductor should be connected to the feed line, the outer conductor should be connected to the ground, but what happens to the outer conductor, should i leave it in parallel with the inner and of the same length or what? the antenna is a monopole

regards

1609. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:20:30 UTC
From: kashe@sonic.net
Message-ID: <441hb1dv99um1b0b1q8hth29lv04majl9s@4ax.com>
Source record: 74476

On Fri, 17 Jun 2005 01:13:06 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>
><kashe@sonic.net> wrote in message
>news:vgc4b1t03ti52jvvgp4er4sb02d9101vur@4ax.com...
>> On Tue, 14 Jun 2005 15:47:05 -0500, richardharrison@webtv.net (Richard
>> Harrison) wrote:
>> Thank you -- I had no idea that three-state logic was a
>> Scottish invention. :-)
>
>It's 4 state logic - you forgot PAR.

Which means ....

>Ken

1610. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:21:42 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Hx%te.4746$mD6.3171@fe07.lga>
Source record: 74475

"Wes Stewart" <*n7ws*@ yahoo.com> wrote in message
news:rdvdb1pj24h9td4ar9v46n36m8imv6a1iu@4ax.com...
> On 20 Jun 2005 09:24:22 -0700, radio913@aol.com wrote:
>
> |
> |
> |Richard Clark wrote:
> |> On 20 Jun 2005 01:00:51 -0700, radio913@aol.com wrote:
> |> > If Zo=50+j0.000000000001,
> |> And it is not
> |> > then it's close enough!
> |> hence it follows from this logic, it is not close enough.
> |>
> |
> | Even if Zo=50+j2, then the VSWR will
> |still be very close to a 1:1 match.
> |
> | You antenna boys don't build too many
> |power amplifiers, obviously.
>
> And you know this how? And it matters why?
>
> But in case it does, I've been building amps since I was a teenager.
> Through the years, I built a number of hf and vhf amps for friends.
>
> Here's one I built for myself.
>
> http://www.qsl.net/n7ws/K7CVT_Amp.html
>
> Its replacement with an 8877 is sitting beside me.

That's a beautiful amp, Wes. I'm curious--how did it handle Slick's
1.040807999:1 swr, from his 50+j2 load impedance?

Walt, W2DU

1611. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:25:32 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <Nij5F8bMXIuCFAQe@ifwtech.co.uk>
Source record: 74479

Richard Harrison wrote:
>Ian White, GM3SEK wrote:
>"But here you pick up the pace. Instead of the detailed argument above,
>suddenly whole chapters rush by in a single sentence."
>
>Fair criticism. It reflects tiring of posting before its conclusion.
>
Sure. If you'd kept to the original very steady pace, you'd still be
writing... which is not what we do in newsgroups.

>The Bird wattmeter`s firectional coupler distinguishes between incident
>and reflected waves by their singular difference. Upon reflection of a
>wave, either the voltage or the current it generates is reversed in
>phase, but not both.
>
Yup.

If I can fill this out a little...

>Bird takes equal samples of voltage and current from the wave..

This is done by the pickup loop, which is both inductively and
capacitively coupled to the center line. The capacitive coupling gives
the voltage sample, while the inductive coupling gives the current
sample.

The current sample runs through a resistor, which develops a voltage
that is made exactly equal to the direct voltage sample. So now we have
two RF voltages appearing in series. In the forward direction, the thing
is built so that these voltages add in phase.

When you rotate the slug by 180deg, the phase of the current sample
reverses but the phase of the voltage sample does not, so now the two
voltages subtract. If the instrument is terminated in its design
impedance of 50 ohms, the voltages (should) cancel exactly, so the meter
reading falls back to zero. There's a small capacitive tab on the pickup
loop that allows the meter reading to be nulled exactly.

>When
>there has been a reflection, the samples have opposite polarity and
>cancel. When there has been no reflection the samples from that
>direction of travel are in-phase and the sample total is double the
>contribution of either sample.
>
Er, yes, pretty much...

>To determine reverse power flow, the polarity of one of the samples is
>reversed.
>
And here you've made that big leap again. Where did "power" come from?
Nothing in what you or I have said above explains how come the meter can
read "Watts".

That's because it doesn't actually measure watts. It has been calibrated
in watts under certain specific test conditions, using a different kind
of wattmeter that actually does measure watts.

>You don`t need to know how it works to use it

No, you don't. But if you choose to use it as "evidence" in a discussion
about waves and reflections, then you do need to know how it works.

>and Bird never advertised
>how simple it is as far as I know.

Possibly because it isn't actually as simple as it looks.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1612. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:27:50 UTC
From: kashe@sonic.net
Message-ID: <vc1hb119kmabc1siqdft0bi67d0ql5965s@4ax.com>
Source record: 74477

On Fri, 17 Jun 2005 21:18:26 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>> Thinking that the
>> discussion we've been having involves 0.01 dB of gain and milliwatts
>of
>> coax radiation indicates a lack of understanding of the possible
>> magnitudes of the effects we're talking about.
>>
>> Roy Lewallen, W7EL
>================================
>
>Roy, quite correct. You've been reading Lord Kelvin again.
>----
>Reg.
>

Are you referring to his presentation to the Royal Society on
his new tide-graphing machine? It's said he was criticized for using a
pencil as the recording device instad of the rcently-invented fountain
pen. He answered, "There is sufficient power available in the ocean to
drive a pencil."

Truly a man who understood the concpt of fly crap.

1613. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 21:35:11 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <lK%te.4748$mD6.4512@fe07.lga>
Source record: 74478

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:pmffb1p1cl9mbh3iou7i640tqgkemlhqch@4ax.com...
> On Mon, 20 Jun 2005 23:17:40 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>>Hi All,
>>
>>Reg asked if I could send my data as an email, so I converted the file to text
>>format to be able to present the data in full here in this msg.
>>
>>I checked to see that the tabular format remained intact, and it did in
>>Outlook
>>Express, so here it is. I hope the tabular format will remain intact in your
>>browsers. Be sure to give your screen maximum width. If it doesn't, let me
>>know
>>and I'll resend in PDF format.
>>
>>I'd like to hear your comments.
>
> Hi Walt,
>
> Thanx big time for this work of dedication. I have other projects to
> attend to, but I am sure looking forward to close examination of this
> trove of data by hunkering down with Mathcad and casting up some
> charts. Hope to do that within the week if not sooner.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

Your mentioning Mathcad, (I have 2000i ed.) made me think of using Excel to produce some graphs of the data, however, there are two other projects that must come first. I have used Mathcad only to solve problems using the equations one can build there, and have not explored the graphing possibilities. With both Excel and Mathcad available do you think I should spend the time learning graphics with Mathcad, or stick with Excel which I already know how to use?

Walt

1614. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 22:53:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9a5p4$15r$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74480

"Walter Maxwell" wrote >
> You've presented a very interesting way of measuring soil
characteristics. When
> I return to Florida in November I'm going to use your method of
measuring the
> soil underneath the dipole

==========

Walt, would it be possible for somebody to go to B.L & E's original site and measure the soil charateristics which they completely forgot all about. Presumably, they were not aware that the type of soil had any effect on their measurments. At what time of the year did they conduct their famous experiments?

Pity we shall have to wait till November for you to re-visit Florida. In view of the high temperature coefficient of soil resistivity and probability on permittivity, don't forget to take a thermometer.

What was the soil temperature when you made your HF measurements versus height? Soil temperate discrepancies might be of greater order and swamp the effects of considerable changes in antenna height.

But I suggest we are more interested in change of antenna impedance versus height above ground than we are in apparent change in soil characteristics versus frequency.

Reg, G4FGQ

1615. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 23:42:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9a8ll$13a$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74481

"Walter Maxwell" wrote
> Richard, that's called a 'senior moment'. Except when I do it they
tell me it's
> my Alzheimer's Syndrome raising its ugly head.
>
==========

I too am afflicted with Alzheimer's. I forget what I said at the
beginning of a vocal sentence before I get to the end. Also I have
recently had a very minor stroke which has affected the small and next
fingers of my left hand. This has slowed down my keyboard dexterity.

But it's quite normal for my time of life and it doesn't worry me.
Least of all does KB7QHC's lying slander worry me.

Reg, G4FGQ

1616. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-21 23:46:07 UTC
From: radio913@aol.com
Message-ID: <1119397567.164940.314450@f14g2000cwb.googlegroups.com>
Source record: 74482

```
Walter Maxwell wrote:
> "Wes Stewart" <*n7ws*@ yahoo.com> wrote in message
> news:rdvdb1pj24h9td4ar9v46n36m8imv6a1iu@4ax.com...
> > On 20 Jun 2005 09:24:22 -0700, radio913@aol.com wrote:
> >
> > |
> > |
> > |Richard Clark wrote:
> > |> On 20 Jun 2005 01:00:51 -0700, radio913@aol.com wrote:
> > |> > If Zo=50+j0.000000000001,
> > |> And it is not
> > |> > then it's close enough!
> > |> hence it follows from this logic, it is not close enough.
> > |>
> > |
> > | Even if Zo=50+j2, then the VSWR will
> > |still be very close to a 1:1 match.
> > |
> > | You antenna boys don't build too many
> > |power amplifiers, obviously.
> >
> > And you know this how? And it matters why?
> >
> > But in case it does, I've been building amps since I was a teenager.
> > Through the years, I built a number of hf and vhf amps for friends.
> >
> > Here's one I built for myself.
> >
> > http://www.qsl.net/n7ws/K7CVT_Amp.html
> >
> > Its replacement with an 8877 is sitting beside me.
>
> That's a beautiful amp, Wes. I'm curious--how did it handle Slick's
> 1.040807999:1 swr, from his 50+j2 load impedance?
>

Looks aren't everything.

It couldn't handle even a 1.04:1 and
just blew out!

Now it's being used as a doorstop...

S.
```

1617. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:09:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bhb2khc92phf0@corp.supernews.com>
Source record: 74483

Reg Edwards wrote:
>
> Walt, would it be possible for somebody to go to B.L & E's original
> site and measure the soil charateristics which they completely forgot
> all about. . .

But what would that tell us about the soil conditions to, say, three skin depths -- or even one? What conclusions could we draw from that information?

Roy Lewallen, W7EL

1618. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:20:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9aasgefc1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74484

It is futile to accept Mathcad or any other program as being the Bible
unless one is sure that the underlying reasoning, by the user, is
correct.

Validity of the results are dependent solely on the user, plus the
possible uncertainty of program bugs.

Reg, G4FGQ

1619. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:38:05 UTC
From: Owen <none@no.where>
Message-ID: <Np2ue.25573$F7.18006@news-server.bigpond.net.au>
Source record: 74485

Reg Edwards wrote:
> It is futile to accept Mathcad or any other program as being the Bible
> unless one is sure that the underlying reasoning, by the user, is
> correct.
>
> Validity of the results are dependent solely on the user, plus the
> possible uncertainty of program bugs.

Well, perhaps the validity of the model, which leads me to...

Reg, I mentioned in an earlier post that I was concerned about the estimate of the loop inductance. It was suggested to me that the Lw term that I included because it was in a prof's lecture notes was a double up, and that the La term sufficiently estimates the inducance of the loop.

Searching the net suggests that there is some degree of black magic or black art in estimating inductance of such things, and that Grover and Terman had a view on it, but the formula I used seems to be commonly used by online calculators and perhaps a more modern view.

Can you (or others) throw any light on the most appropriate formula for estimation of the inductance of a square loop of about the size in the model (0.5m sides, ~2mm dia copper wire).

I do recall that you said what I have done is too complicated and it can be done with a hand calculator... but I would like to find an expression for the inductance of the loop that will be accepted generally as the best estimate withing the other constraints of the model and construction.

All constructive help appreciated.

Owen

1620. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:42:52 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <kochb15reg5vkq3v1kdgfgf40sa2ert1ra@4ax.com>
Source record: 74486

```
On 21 Jun 2005 16:46:07 -0700, radio913@aol.com wrote:

>
>
>Walter Maxwell wrote:
>> "Wes Stewart" <*n7ws*@ yahoo.com> wrote in message
>> news:rdvdb1pj24h9td4ar9v46n36m8imv6a1iu@4ax.com...
>> > On 20 Jun 2005 09:24:22 -0700, radio913@aol.com wrote:
>> >
>> > |
>> > |
>> > |Richard Clark wrote:
>> > |> On 20 Jun 2005 01:00:51 -0700, radio913@aol.com wrote:
>> > |> > If Zo=50+j0.000000000001,
>> > |> And it is not
>> > |> > then it's close enough!
>> > |> hence it follows from this logic, it is not close enough.
>> > |>
>> > |
>> > | Even if Zo=50+j2, then the VSWR will
>> > |still be very close to a 1:1 match.
>> > |
>> > | You antenna boys don't build too many
>> > |power amplifiers, obviously.
>> >
>> > And you know this how? And it matters why?
>> >
>> > But in case it does, I've been building amps since I was a teenager.
>> > Through the years, I built a number of hf and vhf amps for friends.
>> >
>> > Here's one I built for myself.
>> >
>> > http://www.qsl.net/n7ws/K7CVT_Amp.html
>> >
>> > Its replacement with an 8877 is sitting beside me.
>>
>> That's a beautiful amp, Wes. I'm curious--how did it handle Slick's
>> 1.040807999:1 swr, from his 50+j2 load impedance?
>>
>
> Looks aren't everything.
>
> It couldn't handle even a 1.04:1 and
>just blew out!
```

>
> Now it's being used as a doorstop...

It operated a lot better than "Dr." (not so) Slick does.

He makes a comment that no one here builds amps. I present evidence to the contrary and this is the best he can do.

What a loser.

I worked about 30 states on two-meters from the depths of AZ using that amp. The present amp has participated in working all continents (WAC) on two-meters.

1621. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:50:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r5dhb1l4jkis35lufha9bvtg61sg8lftih@4ax.com>
Source record: 74488

On Tue, 21 Jun 2005 17:35:11 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:
>Your mentioning Mathcad, (I have 2000i ed.)

Hi Walt,

My version is ancient in comparison, but I can't see the cost of
upgrading.

>made me think of using Excel to
>produce some graphs of the data, however, there are two other projects that must
>come first. I have used Mathcad only to solve problems using the equations one
>can build there, and have not explored the graphing possibilities.

I enjoy Mathcad for tying them together. When I think of Excel, it is
with pedestrian bar graphs and pie charts.

>With both
>Excel and Mathcad available do you think I should spend the time learning
>graphics with Mathcad, or stick with Excel which I already know how to use?

Stick with Excel, but look into XLZIZL.xls for analysis.

73's
Richard Clark, KB7QHC

1622. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:51:32 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <oC2ue.865$HU.176@trnddc03>
Source record: 74487

Owen wrote:
> Reg Edwards wrote:
>
>> It is futile to accept Mathcad or any other program as being the Bible
>> unless one is sure that the underlying reasoning, by the user, is
>> correct.
>>
>> Validity of the results are dependent solely on the user, plus the
>> possible uncertainty of program bugs.
>
>
> Well, perhaps the validity of the model, which leads me to...
>
> Reg, I mentioned in an earlier post that I was concerned about the
> estimate of the loop inductance. It was suggested to me that the Lw term
> that I included because it was in a prof's lecture notes was a double
> up, and that the La term sufficiently estimates the inducance of the loop.
>
> Searching the net suggests that there is some degree of black magic or
> black art in estimating inductance of such things, and that Grover and
> Terman had a view on it, but the formula I used seems to be commonly
> used by online calculators and perhaps a more modern view.
>
> Can you (or others) throw any light on the most appropriate formula for
> estimation of the inductance of a square loop of about the size in the
> model (0.5m sides, ~2mm dia copper wire).
>
> I do recall that you said what I have done is too complicated and it can
> be done with a hand calculator... but I would like to find an expression
> for the inductance of the loop that will be accepted generally as the
> best estimate withing the other constraints of the model and construction.
>
> All constructive help appreciated.
>
> Owen

Hi, Owen -

I don't know if the following posts will be of any help at all.

Subjects:
Wheeler's 1982 formulas verified
Wheeler's 1982 formulas verified - Wheeler.gif
Another solenoid inductance calculation - Solenoid.zip

group:
alt.binaries.schematics.electronic

Good luck.

John

1623. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 00:58:30 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <9B2ue.119492$CR5.32552@bignews1.bellsouth.net>
Source record: 74489

Try soldering a female bnc connector on the pcb
then you can attach an antenna at will

Reminds me of the old quote "Fire at Will" - but Will ducked just in time.

"redhat" <aezzat1@gmail.com> wrote in message
news:1119388371.513289.55030@g44g2000cwa.googlegroups.com...
> i have a cable that is used as a wire antenna, how to mount it on a
> pcb, the inner conductor should be connected to the feed line, the
> outer conductor should be connected to the ground, but what happens to
> the outer conductor, should i leave it in parallel with the inner and
> of the same length or what? the antenna is a monopole
>
> regards
>

1624. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 01:01:57 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <cM2ue.8114$uS2.648@fe03.lga>
Source record: 74490

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:r5dhb1l4jkis35lufha9bvtg61sg8lftih@4ax.com...
> On Tue, 21 Jun 2005 17:35:11 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>>Your mentioning Mathcad, (I have 2000i ed.)
>
> Hi Walt,
>
> My version is ancient in comparison, but I can't see the cost of
> upgrading.
>
>>made me think of using Excel to
>>produce some graphs of the data, however, there are two other projects that
>>must
>>come first. I have used Mathcad only to solve problems using the equations one
>>can build there, and have not explored the graphing possibilities.
>
> I enjoy Mathcad for tying them together. When I think of Excel, it is
> with pedestrian bar graphs and pie charts.
>
>>With both
>>Excel and Mathcad available do you think I should spend the time learning
>>graphics with Mathcad, or stick with Excel which I already know how to use?
>
> Stick with Excel, but look into XLZIZL.xls for analysis.
>
> 73's
> Richard Clark, KB7QHC

Thanks for the advice, Richard,

Walt

1625. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 01:02:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <70ehb1l0tn1m62qouoevrmjffj8a9smoie@4ax.com>
Source record: 74491

On Tue, 21 Jun 2005 23:42:45 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Least of all does KB7QHC's lying slander worry me.

I love you too, Reg. Thanx for taking the time to acknowledge me.

73's
Richard Clark, KB7QHC

1626. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 01:22:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9aega$eu4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74492

> Reg Edwards wrote:
> >
> > Walt, would it be possible for somebody to go to B.L & E's
original
> > site and measure the soil charateristics which they completely
forgot
> > all about. . .
>
> But what would that tell us about the soil conditions to, say, three
> skin depths -- or even one? What conclusions could we draw from that
> information?
>
> Roy Lewallen, W7EL

==========

None, except that you are nit-picking as usual.

And that B, L & E, all three of them, were floundering about in an amateurish fashion.

Yet it had been well known to others for 35 years that soil conductivity and permittivity had a profound effect on ground wave propagation.

All they had demonstrated was that 113 radials was more than sufficient for MF and low HF broadcast propagation which was what everybody already knew.

And so the rounded-up, Marzipan the Magician, magic number of 120 got stuck in the bibles. A typical American way of going about things. ;o)

Reg.

1627. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 01:34:32 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Me3ue.8118$uS2.2369@fe03.lga>
Source record: 74493

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:70ehb1l0tn1m62qouoevrmjffj8a9smoie@4ax.com...
> On Tue, 21 Jun 2005 23:42:45 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Least of all does KB7QHC's lying slander worry me.
>
> I love you too, Reg. Thanx for taking the time to acknowledge me.
>
> 73's
> Richard Clark, KB7QHC

Lying slander is a redundancy, isn't it? Just the opposite of sanitary sewer as an oxymoron. I've been enjoying Richard's redundancy and Punchinello's responses immensely.

Walt, W2DU

1628. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 02:14:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bhibm235vlm03@corp.supernews.com>
Source record: 74494

Reg Edwards wrote:

[Responding to the question of what useful information could be obtained from measuring the surface soil conductivity at the B, L, and E site]

> None

But I'm sure that won't stop you from your frequent complaints that they "forgot" to measure it. I see you've found other things to criticize, though. . .

, except that you are nit-picking as usual.

Asking what use it would be to measure the surface conductivity (as you suggested) is nit-picking? You have a strange way of evaluating things.

> And that B, L & E, all three of them, were floundering about in an
> amateurish fashion.

Ah, you play the role of armchair quarterback very well. Sure is too bad you didn't think of doing the experiment in 1937 -- I'm sure you would have done it right. All AM broadcast stations would be using precisely 100, not 120 radials, and we'd know the surface ground conductivity of the measurement field (but still wouldn't know what to do with the information). The Reg of '05 would have the warm, satisfied feeling of knowing that another seminal piece of work was done by one of Her Magisty's loyal subjects (or was it His Magisty in '37 -- I forget) instead of the gnawing aggravation he experiences thinking that some American ruffians might actually have done something useful. Life would sure be a lot better today, wouldn't it?

> Yet it had been well known to others for 35 years that soil
> conductivity and permittivity had a profound effect on ground wave
> propagation.

Propagation, yes. But nobody had a good handle of the effect of ground systems on antenna efficiency until their experiments.

> All they had demonstrated was that 113 radials was more than
> sufficient for MF and low HF broadcast propagation which was what
> everybody already knew.

You obviously haven't read the paper. It has nothing at all to do with propagation.

> And so the rounded-up, Marzipan the Magician, magic number of 120 got
> stuck in the bibles. A typical American way of going about things. ;o)
> ----

Boy, it really must hurt deeply to think that some Americans did something that the rest of the world considers to be pioneering. Have some more wine -- it'll dull the pain.

But under no circumstances should you actually stoop to reading the paper you're so fond of criticizing. It would just make you feel worse.

> Reg.

Roy Lewallen, W7EL
certified Reg's Old Wife -- and inveterate nit-picker

1629. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 02:21:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bhipmf68alnae@corp.supernews.com>
Source record: 74495

Wes Stewart wrote:
>
> It operated a lot better than "Dr." (not so) Slick does.
>
> He makes a comment that no one here builds amps. I present evidence
> to the contrary and this is the best he can do.
>
> What a loser.
>
> I worked about 30 states on two-meters from the depths of AZ using
> that amp. The present amp has participated in working all continents
> (WAC) on two-meters.

I think Garvin Yee ("Dr. Slick") has WALG (Worked All Los Gatos) and maybe even WAB (Worked All Berkeley). Does that count?

Roy Lewallen, W7EL

1630. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 02:54:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <orihb19sd8mrp20hqu4167if57a3643c3i@4ax.com>
Source record: 74496

On Tue, 21 Jun 2005 21:34:32 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Lying slander is a redundancy, isn't it?

Hi Walt,

The laws, and I imagine the understanding, varies immensely across all borders and jurisdictions. In some places it is slander to reveal the truth, in others to disparage with a lie.

One could imagine the paradox of uttering a lying truth, I suppose. However, given Reg's propensity to slander outrageously, as though it were a prerogative of old age and infirmity, and to wrap me in under the same mantle well before my time (but perhaps not infirmity); this callow youth takes it as no less honour than the tap of the sword on the shoulders by a Queen.

Alternately, lacking any quantitative data, a shortfall that Sir Kelvinator of ice box fame would shudder at, I cannot think Reg's opprobrium is any less part of the act of Punchinello (in other words, indistinguishable from honest labor when such is so mixed with intemperance and reckless fulmination).

Either way, I always enjoy the flourish of his hyperbolic arcs.

73's
Richard Clark, KB7QHC

1631. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 02:59:34 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b1266$42b8d418$97d55d24$2367@ALLTEL.NET>
Source record: 74497

Reg;
How many radials are required in GB for a commercial broadcast station ?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9aega$eu4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> > Reg Edwards wrote:
>
> ==========
>
> None, except that you are nit-picking as usual.
>
> And that B, L & E, all three of them, were floundering about in an
> amateurish fashion.
>
> Yet it had been well known to others for 35 years that soil
> conductivity and permittivity had a profound effect on ground wave
> propagation.
>
> All they had demonstrated was that 113 radials was more than
> sufficient for MF and low HF broadcast propagation which was what
> everybody already knew.
>
> And so the rounded-up, Marzipan the Magician, magic number of 120 got
> stuck in the bibles. A typical American way of going about things. ;o)
> ----
> Reg.
>
>

1632. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 03:07:37 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <0C4ue.6085$Gp.5731@fe04.lga>
Source record: 74498

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:orihb19sd8mrp20hqu4167if57a3643c3i@4ax.com...
> On Tue, 21 Jun 2005 21:34:32 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>>Lying slander is a redundancy, isn't it?
>
> Hi Walt,
>
> The laws, and I imagine the understanding, varies immensely across all
> borders and jurisdictions. In some places it is slander to reveal the
> truth, in others to disparage with a lie.
>
> One could imagine the paradox of uttering a lying truth, I suppose.
> However, given Reg's propensity to slander outrageously, as though it
> were a prerogative of old age and infirmity, and to wrap me in under
> the same mantle well before my time (but perhaps not infirmity); this
> callow youth takes it as no less honour than the tap of the sword on
> the shoulders by a Queen.
>
> Alternately, lacking any quantitative data, a shortfall that Sir
> Kelvinator of ice box fame would shudder at, I cannot think Reg's
> opprobrium is any less part of the act of Punchinello (in other words,
> indistinguishable from honest labor when such is so mixed with
> intemperance and reckless fulmination).
>
> Either way, I always enjoy the flourish of his hyperbolic arcs.
>
> 73's
> Richard Clark, KB7QHC

Richard, as I both said and implied earlier, I enjoy you both immensely. Your elegant usage of expression as a degreed literary is hardly unnoticeable.

Walt

1633. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 04:13:48 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3A5ue.329$Ls6.20323468@news.sisna.com>
Source record: 74499

Walter:

Does that mean you do agree with me and Shakespeare sucks--or not?
<grin>

John

"Walter Maxwell" <walt@w2du.com> wrote in message
news:0C4ue.6085$Gp.5731@fe04.lga...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:orihb19sd8mrp20hqu4167if57a3643c3i@4ax.com...
>> On Tue, 21 Jun 2005 21:34:32 -0400, "Walter Maxwell" <walt@w2du.com>
>> wrote:
>>
>>>Lying slander is a redundancy, isn't it?
>>
>> Hi Walt,
>>
>> The laws, and I imagine the understanding, varies immensely across
>> all
>> borders and jurisdictions. In some places it is slander to reveal
>> the
>> truth, in others to disparage with a lie.
>>
>> One could imagine the paradox of uttering a lying truth, I suppose.
>> However, given Reg's propensity to slander outrageously, as though it
>> were a prerogative of old age and infirmity, and to wrap me in under
>> the same mantle well before my time (but perhaps not infirmity); this
>> callow youth takes it as no less honour than the tap of the sword on
>> the shoulders by a Queen.
>>
>> Alternately, lacking any quantitative data, a shortfall that Sir
>> Kelvinator of ice box fame would shudder at, I cannot think Reg's
>> opprobrium is any less part of the act of Punchinello (in other
>> words,
>> indistinguishable from honest labor when such is so mixed with
>> intemperance and reckless fulmination).
>>
>> Either way, I always enjoy the flourish of his hyperbolic arcs.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> Richard, as I both said and implied earlier, I enjoy you both

> immensely. Your elegant usage of expression as a degreed literary is
> hardly unnoticeable.
>
> Walt
>

1634. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 04:15:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <BB5ue.330$Pq7.20455469@news.sisna.com>
Source record: 74500

Not to be confused with the company bearing the name (Shakespeare) and
having made, or is making, chicken band antennas...

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:3A5ue.329$Ls6.20323468@news.sisna.com...
> Walter:
>
> Does that mean you do agree with me and Shakespeare sucks--or not?
> <grin>
>
> John
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:0C4ue.6085$Gp.5731@fe04.lga...
>>
>> "Richard Clark" <kb7qhc@comcast.net> wrote in message
>> news:orihb19sd8mrp20hqu4167if57a3643c3i@4ax.com...
>>> On Tue, 21 Jun 2005 21:34:32 -0400, "Walter Maxwell" <walt@w2du.com>
>>> wrote:
>>>
>>>>Lying slander is a redundancy, isn't it?
>>>
>>> Hi Walt,
>>>
>>> The laws, and I imagine the understanding, varies immensely across
>>> all
>>> borders and jurisdictions. In some places it is slander to reveal
>>> the
>>> truth, in others to disparage with a lie.
>>>
>>> One could imagine the paradox of uttering a lying truth, I suppose.
>>> However, given Reg's propensity to slander outrageously, as though
>>> it
>>> were a prerogative of old age and infirmity, and to wrap me in under
>>> the same mantle well before my time (but perhaps not infirmity);
>>> this
>>> callow youth takes it as no less honour than the tap of the sword on
>>> the shoulders by a Queen.
>>>
>>> Alternately, lacking any quantitative data, a shortfall that Sir
>>> Kelvinator of ice box fame would shudder at, I cannot think Reg's
>>> opprobrium is any less part of the act of Punchinello (in other
>>> words,

>>> indistinguishable from honest labor when such is so mixed with
>>> intemperance and reckless fulmination).
>>>
>>> Either way, I always enjoy the flourish of his hyperbolic arcs.
>>>
>>> 73's
>>> Richard Clark, KB7QHC
>>
>> Richard, as I both said and implied earlier, I enjoy you both
>> immensely. Your elegant usage of expression as a degreed literary is
>> hardly unnoticeable.
>>
>> Walt
>>
>
>

1635. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 04:27:05 UTC
From: richardharrison@webtv.net
Message-ID: <20290-42B8E899-1291@storefull-3255.bay.webtv.net>
Source record: 74502

Roy, W7EL wrote:
"What conclusions could we draw from that information?"

My comment is a little off topic as it is not about measuring soil constants. It is only an opinion that the FCC`s decisions regarding a standard grounding system for medium wave broadcast stations worked out very well. 120 redials each about 1/4-wavelength seems to work well whether soil is good or bad.

In summer or winter, if the ground cracks open from drought or is covered with a foot or more of floodwater, the tower currents and field strengths hardly change at all. Directional patterns are unaffected. Amazing and well done!

Best regards, Richard Harrison, KB5WZI

1636. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 04:29:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9apfk$j6r$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74501

"Fred W4JLE" wrote
> Reg;
> How many radials are required in GB for a commercial broadcast
station ?
>

==========
Fred,
Depends on how long and thick they are. But in general, just
sufficient to meet overall technical and economic requirements with
one or two more for luck.

Design engineers, just to be awkward, are inclined to deliberately
avoid 120. Then they can sit back and have a good laugh when it still
works.

Reg, G4FGQ

1637. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 04:37:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9apuq$36t$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74503

I forgot to say all measurements were made in or near the domestic
kitchen sink.

Reg.

1638. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 04:42:09 UTC
From: richardharrison@webtv.net
Message-ID: <20290-42B8EC21-1292@storefull-3255.bay.webtv.net>
Source record: 74504

Reg, G4FGQ wrote:
"A typical American way of going apoutthings.:o) "

Later to be called "Shock and Awe"?

Best regards, Richard Harrison, KB5WZI

1639. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 05:55:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9auh9$m6o$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74505

Earlier I said a volume of soil between electrodes behaves as a capacitor in parallel with a resistance.

To conform better to the impedance-frequency response of real soil, a better simulation is obtained with another resistor in series with the capacitor. Better still add a 3rd resistor in series with a second capacitor, both in shunt with R1, C1 and R2.

I have a computer program somewhere which assists in designing a circuit to simulate a given type of soil. But what use such circuits might have is a matter for conjecture.

It is more convenient and practical to work in terms of resistance rather than the scientific term conductivity. Ohm-metres rather than milli-Siemens. When thinking in terms of conductivity I always feel I should be standing on my head.

The resistance measured between opposite faces of a 1-metre cube of the soil is 1000 ohms when the soil has a resistivity of 1000 ohm-meters.

A poor soil is 1000 ohms = 1 milli-S Sea water is 0.22 ohms.

One can visualise a 1 metre cube of the material. The permittivity of the material being the nunber of times the measured capacitance exceeds the calculated capacitance between the electrodes when only air is present. It's about 9 pF.

Reg, G4FGQ

1640. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 06:03:46 UTC
From: radio913@aol.com
Message-ID: <1119420226.578082.298220@g44g2000cwa.googlegroups.com>
Source record: 74506

Roy Lewallen wrote:
> Wes Stewart wrote:
> >
> > It operated a lot better than "Dr." (not so) Slick does.
> >
> > He makes a comment that no one here builds amps. I present evidence
> > to the contrary and this is the best he can do.
> >

A bunch of pictures of dubious origin...
Would you care to give us some of your design
notes? Or did you build this one from someone
elses schematic?

>
> I think Garvin Yee ("Dr. Slick") has WALG (Worked All Los Gatos) and
> maybe even WAB (Worked All Berkeley). Does that count?
>
> Roy Lewallen, W7EL

It certainly does count.

I have also WYM (Worked Yo' Momma!)

Slick

1641. get ready for field day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 06:34:11 UTC
From: jcooper874@webtv.net
Message-ID: <8977-42B90663-1184@storefull-3272.bay.webtv.net>
Source record: 74507

stock up on brew lots of food. and flicks while chatting away we have fun on field day at our club . no boring old hams talking about the war and other bitching stuff so have fun on field day

1642. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 06:56:14 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <hcjSKoCOuQuCFA2s@ifwtech.co.uk>
Source record: 74508

Roy Lewallen wrote:
>
>But under no circumstances should you actually stoop to reading the
>paper you're so fond of criticizing.

Are BLE's original papers available on the web? If not, that does represent a substantial problem.

Despite having several derivative references, I must admit to never having seen the originals either. But I do have enough information to judge BLE's work worthy of respect. Pioneers always deserve an extra helping of respect because - unlike everyone else, including all their critics - they didn't have the benefit of perfect hindsight.

On the other hand, that work was done almost three-quarters of a century ago. If we don't know more than the pioneers did, then we have wasted their efforts.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1643. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 07:13:44 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <m8aTS2Do+QuCFA1I@ifwtech.co.uk>
Source record: 74509

Richard Harrison wrote:
>Roy, W7EL wrote:
>"What conclusions could we draw from that information?"
>
>My comment is a little off topic as it is not about measuring soil
>constants. It is only an opinion that the FCC`s decisions regarding a
>standard grounding system for medium wave broadcast stations worked out
>very well. 120 redials each about 1/4-wavelength seems to work well
>whether soil is good or bad.
>
>In summer or winter, if the ground cracks open from drought or is
>covered with a foot or more of floodwater, the tower currents and field
>strengths hardly change at all. Directional patterns are unaffected.
>Amazing and well done!

Well, not exactly amazing, since the FCC deliberately requires the ground to be covered by so many radials that the location and its ground conditions don't matter any more.

That was an administrative policy decision rather than a technical one. From the technical viewpoint, everybody agrees that 120*0.25wl is more than enough to override the local ground conditions under the tower irrelevant.

The real technical question is: how many, and how long, will be "just enough" for "here"? That obviously requires a lot more knowledge and engineering judgement.

Having just taken delivery of two miles of radial wire, the question of "How much is enough?" is starting to become very practical...

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1644. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 07:54:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bi696939e42a9@corp.supernews.com>
Source record: 74510

Ian White GM3SEK wrote:

> . . .
> The real technical question is: how many, and how long, will be "just
> enough" for "here"? That obviously requires a lot more knowledge and
> engineering judgement.
> . . .

And for the purpose at hand. We have to keep in mind that the requirements for AM broadcasters are quite different from those of amateurs. A few percent difference in field strength means a few percent difference in a broadcaster's audience size and therefore in advertising income. This income difference is felt year after year, so any change that brings a few percent increase in field strength is worth a fair amount of money for a broadcaster to implement. On the other hand, a difference of 1 dB (more than a 20% change in efficiency or 10% change in field strength) is seldom worthwhile at all for most amateurs.

I'm not sure why the great hangup on how many radials AM broadcasters use. It certainly isn't what most amateurs need.

Roy Lewallen, W7EL

1645. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 10:54:49 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <nbOdnVRFk_Jl3iTfRVn-iA@comcast.com>
Source record: 74523

SEE BELOW
en Bessler"
> <kg0wx@NOSPAMyahoo.com> wrote:
>
>
>><kashe@sonic.net> wrote in message
>>news:vgc4b1t03ti52jvvgp4er4sb02d9101vur@4ax.com...
>>
>>>On Tue, 14 Jun 2005 15:47:05 -0500, richardharrison@webtv.net (Richard
>>>Harrison) wrote:
>>>Thank you -- I had no idea that three-state logic was a
>>>Scottish invention. :-)
>>
>>It's 4 state logic - you forgot PAR.
>
>
> Which means ....
>

GIVE UP RADIO! TAKE UP GOLF.

1646. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 11:19:35 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Ztudnbo6g_fR1CTfRVn-3w@crocker.com>
Source record: 74436

"redhat" <aezzat1@gmail.com> wrote in message
news:1119388371.513289.55030@g44g2000cwa.googlegroups.com...
>i have a cable that is used as a wire antenna, how to mount it on a
> pcb, the inner conductor should be connected to the feed line, the
> outer conductor should be connected to the ground, but what happens to
> the outer conductor, should i leave it in parallel with the inner and
> of the same length or what? the antenna is a monopole

there is no such thing as a monopole antenna... only dipoles where the other
half probably isn't where you want it to be!

1647. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 11:52:20 UTC
From: Dick <lbylf3c02@sneakemail.com>
Message-ID: <X8OdnX21FZFmzSTfRVn-hA@adelphia.com>
Source record: 74426

Reg,
Sorry to butt in but I have a loop question.

Presently I have a loop for 20M made from 1/2 inch copper pipe in the attic. I use a large 4500v variable capacitor turned by a small motor. It works very well and is better than my GAP Challenger vertical (31ft) in favored directions. Noise is higher in the attic but I can bring that down with a Timewave ANC-4 noise canceling (by phasing) unit.

My question is about the coupling loop. Everything I had ever seen on the coupling loop was that it had to be an odd construction of coax, i.e. some sort of Faraday shield?? I noticed your comment to Adrian about a simple stiff wire coupling loop.

Is this loop simply shield to one side and center conductor to the other?

Is there a size/diameter ratio of the coupling loop to the main loop?

Is the antenna now more likely to have increased noise due to an "unshielded" coupling loop?

Thanks & regards,
Dick N3HKN

> ==========
> Hi Adrian,
>
> Pleased to hear you are now working OK
>
> The correct way to reduce SWR is to adjust the diameter of the
> coupling loop.
> There's no way to tell which way to adjust the loop except to try it.
> It may not be the best setting for ALL bands.
> But it IS better to do without the tuner if you can manage it.
> Adjust the loop diameter for minimum SWR on your favourite band and it
> will also be fairly close on the other bands.
>
> It will be easier to change the diameter of the coupling loop now that
> it is just a simple length of wire.
>
> Now that you can hear some noise, the correct way to set the loop and
> receiver both to the same frequency is to VERY SLOWLY, vary the loop
> tuning capacitor for maximum noise in the receiver.
> ----
> 73, Reg, G4FGQ
>

>
> From - Wed

1648. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 13:01:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119445278.758100.154100@g47g2000cwa.googlegroups.com>
Source record: 74442

Ian White GM3SEK wrote:
> Richard Harrison wrote:
> >To determine reverse power flow, the polarity of one of the samples is
> >reversed.
> >
> And here you've made that big leap again. Where did "power" come from?
> Nothing in what you or I have said above explains how come the meter can
> read "Watts".

Bird assumes the meter is being used in a 50 ohm environment. Bird assumes after the two sample voltages are superposed, that the calibration is accurate to within 5% of full scale. The calibration is done using 50 ohm matched lines.

In a transmission line, the net power transfer is V*I*cos(theta). It can be proven mathematically that, for a transmission line with reflections,

Pnet = V*I*cos(theta) = Vfor*Ifor - Vref*Iref

The Bird sampling circuit allows one to read either (Vfor*Ifor) or (Vref*Iref) by turning the slug. Bird assumes Vfor/Ifor = Vref/Iref = 50 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

1649. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 13:12:36 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <gioib19rp3v4dbi5kfhfsl1p7df6i05ssh@4ax.com>
Source record: 74520

On 21 Jun 2005 23:03:46 -0700, radio913@aol.com wrote:

>
>
>Roy Lewallen wrote:
>> Wes Stewart wrote:
>> >
>> > It operated a lot better than "Dr." (not so) Slick does.
>> >
>> > He makes a comment that no one here builds amps. I present evidence
>> > to the contrary and this is the best he can do.
>> >

What a loser!
>
> A bunch of pictures of dubious origin...

Yes, I'm accustomed to keeping photos around for 30 years of someone
else's work so I can someday pass it off as mine.

>Would you care to give us some of your design
>notes?

Yes, if I can find them; right after you post some notes and photos of
one of the many amps I'm sure you've built.

> Or did you build this one from someone
>elses (sic) schematic?

Read the text, Bozo. And then repeat after me: Rho can be greater
than one, rho can be greater than one, rho can be greater than one....

1650. 60 meter ERP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 13:39:15 UTC
From: Buck <iam@this.site>
Message-ID: <t6nib156q2abuogtpde3nubb26vq5mppde@4ax.com>
Source record: 74438

I am trying to calculate how much power I am allowed to run to operate on 60 meters. Here are the two antennas:

1) 80 meter dipole 129 feet long. The antenna is fed with cable TV coax with only the following markings: E83032 F6SSVV (UL) CATV There is no balun on the line. Just the 75 feet of coax from the back of my tuner to the antenna. The tuner is fed with RG-8X-95 coax 3 feet long.

2) Antenna Specialists 75 meter mobile whip antenna. The windings will be removed until it matches on the center 60 meter frequency. The antenna will be mounted on a mag-mount on the top of a Ford Aspire.

I tried modeling the dipole using ARRL-EZNEC. I modified one of their dipoles so I get the extra segments. Here is what I have done so far:

Wires: 1) 0, -64.5,50,-,0,64.5,50,-,14,55
Sources: 1 @ 50%
Loads 0,
Xmission line 0
Ground type: Free Space
Wire Loss: Copper
Units: Feet
Plot Type: Azimuth
Elevation angle: 15
Step size: 1 deg
Ref level: 2.15 (dipole as per ARRL Handbook)
Alt SWR Z0: 75

Here are the results as I read them:
SWR Plot: 5.33 - 5.4 step .005
50 ohms, SWR is 59.8 - 62.6
75 ohms: SWR is 40-41.9

When I view the far field plot, it says at the bottom of the main window, Average gain - .983, = -.07 db Model Contains Loss

With the mininec ground, I get an average gain of .764 = -1.17 db

I haven't accounted for the coax. I tried adding it but the program froze up and I had to start over.

From what I hear, rumor among hams is that mobil antennas can run over 100 watts and still not violate the erp allowed on the band.

I plan to replace that antenna with a 135 foot wire fed with 300 ohm
TV twin lead into my tuner direct.

Can anyone tell me the highest legal power output I can use to operate
on 60 meters with these antennas?

Thank you,
Buck
N4PGW

--
73 for now
Buck
N4PGW

1651. A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 13:40:26 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net>
Source record: 74511

In recent days on the QRP-L mailing list, the following remarks were made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:

"...it is impossible to build a 4:1 ratio current balun that uses two 1:1 baluns on a single core."

and:

"It's well established any balun made up of series / parallel transmission lines requires different voltages from the start to finish of each transmission line. "

I have devised and modeled a 4:1 current balun using two 1:1 baluns on a single core, and have tested a fully functional prototype. The design can be built without any core, if so desired. The full disclosure of this design with all theory, references, and test results can be obtained from my web page at:

http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf

The design proves beyond all reasonable doubt that the above statements to the contrary are, to put it mildly, gravely in error.

Chris


```
,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-| )__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__
```


Graphics by Loek Frederiks

1652. Re: get ready for field day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 14:41:45 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <67967$42b978ab$97d55d24$16124@ALLTEL.NET>
Source record: 74428

Do you mean the same old boring hams that fought and died so you can be an ungrateful smartass?

<jcooper874@webtv.net> wrote in message news:8977-42B90663-1184@storefull-3272.bay.webtv.net...
> stock up on brew lots of food. and flicks while chatting away we have
> fun on field day at our club . no boring old hams talking about the war
> and other bitching stuff so have fun on field day
>

1653. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:10:46 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Wbfue.31844$J12.20043@newssvr14.news.prodigy.com>
Source record: 74429

Cecil Moore wrote:
> Ian White GM3SEK wrote:
>
>>Richard Harrison wrote:
>>
>>>To determine reverse power flow, the polarity of one of the samples is
>>>reversed.
>>>
>>
>>And here you've made that big leap again. Where did "power" come from?
>>Nothing in what you or I have said above explains how come the meter can
>>read "Watts".
>
>
> Bird assumes the meter is being used in a 50 ohm environment. Bird
> assumes after the two sample voltages are superposed, that the
> calibration is accurate to within 5% of full scale. The calibration is
> done using 50 ohm matched lines.
>
> In a transmission line, the net power transfer is V*I*cos(theta). It
> can be proven mathematically that, for a transmission line with
> reflections,
>
> Pnet = V*I*cos(theta) = Vfor*Ifor - Vref*Iref
>
> The Bird sampling circuit allows one to read either (Vfor*Ifor) or
> (Vref*Iref) by turning the slug. Bird assumes Vfor/Ifor = Vref/Iref =
> 50 ohms.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

The Bird sampling circuit certainly is a magical device if it can
allow one to "read" a power directly. Energy and power are always
calculated quantities. You don't have the math right, Cecil.
Try again.
73,
Tom Donaly, KA6RUH

1654. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:18:11 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Uifue.6686$xm1.680@fe06.lga>
Source record: 74431

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11bi696939e42a9@corp.supernews.com...
> Ian White GM3SEK wrote:
>
>> . . .
>> The real technical question is: how many, and how long, will be "just enough"
>> for "here"? That obviously requires a lot more knowledge and engineering
>> judgement.
>> . . .
Well, Ian, the BLE paper reports data allowing one to make that engineering judgement. It's unfortunate that my copy of the paper is in my library in Florida, and I won't be back there until November to scan it for the group. However, I have ordered a copy from the Michigan State U library.

The BLE experiments were conducted to determine what combination of radials would form the best simulation of a perfect ground, i.e., what combination would achieve a field strength closest to the ideal calculated value. One factor they considered is that when the spacing between adjacent wires in a grid structure is 1/20 lambda or less, the effect is that of a continuous reflecting surface. The spacing between radials is not exactly the same as a grid structure, but the effect is similar.

BLE found that the optimum length of the radials in the ground is not related to resonant length as it is with elevated radials. They found that the principal reason for the optimum length concerns the volume containing the significant energy in the electromagnetic fields in the space surrounding the radiator that intersects the ground. They found that at a distance of 0.4 lambda from the radiator the energy in the fields has reduced to the level of diminishing returns, where collecting the currents at a greater distance would yield no significant decrease in loss resistance, and therefore no further increase in field strength. Indeed, the field strength obtained with at least 90 radials 0.4 lambda in length was found to be insignificantly less than that of a perfect ground. This fact was unknown prior to BLE's experiments. I can't remember the exact difference shown in the graph, but it is inconsequential.

With the radials simulating a near-perfect reflecting ground plane the skin depth of the earth beneath the radials is of no consequence, because the RF energy is nearly totally reflected, with only an insignificant amount transmitted through the ground plane. Consequently, the soil conditions directly beneath the ground plane are irrevelant.

However, the soil conditions immediately external to the ground plane are important to the intensity of the ground wave propagation from vertical radiators. The poorer the soil conductivity the greater the loss at low angles of elevation. And as we all know, propagation of the ground wave is frequency

sensitive. Many years ago, using the FCC propagation charts of field strength vs distance for a conductivity of 8, the geographical area covered with a field strenght of 1 mv/meter at 1 mile for a 250 watt station at 550 KHz would require 47 kilowatts at 1500 KHz to cover the same area with the same signal level.

When I receive the requested copy of the BLE paper I'll scan it and publish it for all to see.

Walt, W2DU

1655. Re: 60 meter ERP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:41:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bj1m18cc51q86@corp.supernews.com>
Source record: 74440

Buck wrote:
> I am trying to calculate how much power I am allowed to run to operate
> on 60 meters. Here are the two antennas:
>
> 1) 80 meter dipole 129 feet long. The antenna is fed with cable TV
> coax with only the following markings: E83032 F6SSVV (UL) CATV
> There is no balun on the line. Just the 75 feet of coax from the back
> of my tuner to the antenna. The tuner is fed with RG-8X-95 coax 3
> feet long.

Because you're using no balun, the transmission line is part of the antenna and should be included in the model. You'll need to include the entire path to Earth along the outside of the antenna. See "Coaxial Cable, Modeling" in the EZNEC manual for more information, and the DipTL.EZ example file and its associated Antenna Notes file for an example.

> 2) Antenna Specialists 75 meter mobile whip antenna. The windings
> will be removed until it matches on the center 60 meter frequency.
> The antenna will be mounted on a mag-mount on the top of a Ford
> Aspire.

The whip is only part of the radiating antenna, and very possibly the least significant part. The vehicle is the other part. So to find out what the gain of the antenna is requires including the vehicle in the model. A fairly simple wire frame of the outside of the vehicle would probably be adequate, with a couple of wires crossing the top and meeting where the antenna mounts.

>
> I tried modeling the dipole using ARRL-EZNEC. I modified one of their
> dipoles so I get the extra segments. Here is what I have done so far:
>
> Wires: 1) 0, -64.5,50,-,0,64.5,50,-,14,55
> Sources: 1 @ 50%
> Loads 0,
> Xmission line 0
> Ground type: Free Space
> Wire Loss: Copper
> Units: Feet
> Plot Type: Azimuth
> Elevation angle: 15
> Step size: 1 deg
> Ref level: 2.15 (dipole as per ARRL Handbook)

The gain is to be referenced to a dipole. The gain of a dipole isn't 2.15 dBi -- that's the gain of a *free space* dipole. To find the gain

of a dipole over ground, model a dipole over ground and use that value for a reference. You'll find that it's more like 6 - 8 dBi. (See example file BYDipole, for instance.)

> Alt SWR Z0: 75
>
> Here are the results as I read them:
> SWR Plot: 5.33 - 5.4 step .005
> 50 ohms, SWR is 59.8 - 62.6
> 75 ohms: SWR is 40-41.9
>
> When I view the far field plot, it says at the bottom of the main
> window, Average gain - .983, = -.07 db Model Contains Loss
>
> With the mininec ground, I get an average gain of .764 = -1.17 db

The primary function of the Average Gain test is to check for numerical errors, not to evaluate antenna gain. See Average Gain in the EZNEC manual for more information. What you need to do is to run a 3D plot, then from it, open the 2D plot. The cursor will be at the point of maximum gain, which you can read in the data box below the 2D plot.

Mininec ground is ok for the dipole model at 50 feet, but you'll need to use High Accuracy ground for the model which includes a vehicle.

> I haven't accounted for the coax.

As I mentioned, you'll need to include the outside of the coax in your dipole model. It otherwise isn't necessary to model the coax.

I tried adding it but the program
> froze up and I had to start over.

Please update your program by going to http://eznec.com/eznec_arrl.htm, where you'll find a link to download the update. If you encounter the problem after updating, please email me.

> From what I hear, rumor among hams is that mobil antennas can run over
> 100 watts and still not violate the erp allowed on the band.

That wouldn't surprise me.

> I plan to replace that antenna with a 135 foot wire fed with 300 ohm
> TV twin lead into my tuner direct.
>
> Can anyone tell me the highest legal power output I can use to operate
> on 60 meters with these antennas?

Perhaps someone else has done the modeling already. Sorry, I haven't.

Roy Lewallen, W7EL

1656. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:45:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42b98899$1_2@spool9-west.superfeed.net>
Source record: 74425

Tom Donaly wrote:
> The Bird sampling circuit certainly is a magical device if it can
> allow one to "read" a power directly.

It would be a magical device if it did that but it doesn't.
The Bird wattmeter is simply an analog calculator. When the
Bird is *calculating* power, it phasor adds/subtracts a sample
voltage proportional to the total current to/from a sample volt
proportional to the total voltage and comes up with a superposed
voltage that is proportional to either forward power or reflected
power depending upon slug position.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1657. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:52:17 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <SOfue.7046$mD6.2995@fe07.lga>
Source record: 74434

"Walter Maxwell" <walt@w2du.com> wrote in message
news:Uifue.6686$xm1.680@fe06.lga...
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11bi696939e42a9@corp.supernews.com...
>> Ian White GM3SEK wrote:
>>
>>> . . .
>>> The real technical question is: how many, and how long, will be "just
>>> enough" for "here"? That obviously requires a lot more knowledge and
>>> engineering judgement.
>>> . . .
> Well, Ian, the BLE paper reports data allowing one to make that engineering
> judgement. It's unfortunate that my copy of the paper is in my library in
> Florida, and I won't be back there until November to scan it for the group.
> However, I have ordered a copy from the Michigan State U library.
>
> The BLE experiments were conducted to determine what combination of radials
> would form the best simulation of a perfect ground, i.e., what combination
> would achieve a field strength closest to the ideal calculated value. One
> factor they considered is that when the spacing between adjacent wires in a
> grid structure is 1/20 lambda or less, the effect is that of a continuous
> reflecting surface. The spacing between radials is not exactly the same as a
> grid structure, but the effect is similar.
>
> BLE found that the optimum length of the radials in the ground is not related
> to resonant length as it is with elevated radials. They found that the
> principal reason for the optimum length concerns the volume containing the
> significant energy in the electromagnetic fields in the space surrounding the
> radiator that intersects the ground. They found that at a distance of 0.4
> lambda from the radiator the energy in the fields has reduced to the level of
> diminishing returns, where collecting the currents at a greater distance would
> yield no significant decrease in loss resistance, and therefore no further
> increase in field strength. Indeed, the field strength obtained with at least
> 90 radials 0.4 lambda in length was found to be insignificantly less than that
> of a perfect ground. This fact was unknown prior to BLE's experiments. I can't
> remember the exact difference shown in the graph, but it is inconsequential.
>
> With the radials simulating a near-perfect reflecting ground plane the skin
> depth of the earth beneath the radials is of no consequence, because the RF
> energy is nearly totally reflected, with only an insignificant amount
> transmitted through the ground plane. Consequently, the soil conditions
> directly beneath the ground plane are irrevelant.
>

> However, the soil conditions immediately external to the ground plane are
> important to the intensity of the ground wave propagation from vertical
> radiators. The poorer the soil conductivity the greater the loss at low angles
> of elevation. And as we all know, propagation of the ground wave is frequency
> sensitive. Many years ago, using the FCC propagation charts of field strength
> vs distance for a conductivity of 8, the geographical area covered with a
> field strenght of 1 mv/meter at 1 mile for a 250 watt station at 550 KHz would
> require 47 kilowatts at 1500 KHz to cover the same area with the same signal
> level.
>
> When I receive the requested copy of the BLE paper I'll scan it and publish it
> for all to see.
>
> Walt, W2DU

In my previous post above I forgot to mention that the displacement currents that enter the ground between the radials don't follow the lossy ground to the center of the radial system. Instead, they quickly diffract to the nearest radial and thus continue toward the center along the radial wire. Consequently, the more radials the shorter distance the diffracted current has to travel to reach the higher conductivity of the wire. The last I knew the FCC requires only 90 radials (every 4°) to comply with the regulations, but many BC antenna engineers use 120 (every 3°).

I discussed this issue in Chapter 5 in both the 1st and 2nd editions of Reflections, with a diagram of the diffraction phenomenon in Fig. 1.

Walt, W2DU

1658. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:53:40 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <o92jb1pbhcvvg1n887ce4kn5eo1be2pfj5@4ax.com>
Source record: 74522

On Tue, 21 Jun 2005 17:35:11 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:pmffb1p1cl9mbh3iou7i640tqgkemlhqch@4ax.com...
>> On Mon, 20 Jun 2005 23:17:40 -0400, "Walter Maxwell" <walt@w2du.com>
>> wrote:
>>
>>>Hi All,
>>>
>>>Reg asked if I could send my data as an email, so I converted the file to text
>>>format to be able to present the data in full here in this msg.
>>>
>>>I checked to see that the tabular format remained intact, and it did in
>>>Outlook
>>>Express, so here it is. I hope the tabular format will remain intact in your
>>>browsers. Be sure to give your screen maximum width. If it doesn't, let me
>>>know
>>>and I'll resend in PDF format.
>>>
>>>I'd like to hear your comments.
>>
>> Hi Walt,
>>
>> Thanx big time for this work of dedication. I have other projects to
>> attend to, but I am sure looking forward to close examination of this
>> trove of data by hunkering down with Mathcad and casting up some
>> charts. Hope to do that within the week if not sooner.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>Hi Richard,
>
>Your mentioning Mathcad, (I have 2000i ed.) made me think of using Excel to
>produce some graphs of the data, however, there are two other projects that must
>come first. I have used Mathcad only to solve problems using the equations one
>can build there, and have not explored the graphing possibilities. With both
>Excel and Mathcad available do you think I should spend the time learning
>graphics with Mathcad, or stick with Excel which I already know how to use?
>
>Walt

Walt, I'm not Richard but my two cents would be stick with Excel. I have a (now old) version of Mathcad (6.0) and don't use it much. It is much better in handling complex numbers than Excel is tho.

Excel does the math just fine, but the clunky text results are a pain.

Also, I cannot recommend too highly Dan's (AC6LA) Excel based programs. His MultiNEC front end for NEC, EZNEC, 4nec2, Antenna Model, etc. is used all of the time here. For transmission line stuff, including "building" matching networks XLZIZL is also constantly in use at this QTH. Likewise his stand alone TLDetails.exe should be in every ham's tool kit. (I'm a beginning amateur woodworker and just like woodworkers, hams can never have too many tools.)

1659. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:55:39 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <9I-dnfL4DdRqFCTfRVn-qg@comcast.com>
Source record: 74439

<radio913@aol.com> wrote in message
news:1119420226.578082.298220@g44g2000cwa.googlegroups.com...
>
>
> Roy Lewallen wrote:
>> Wes Stewart wrote:
>> >
>> > It operated a lot better than "Dr." (not so) Slick does.
>> >
>> > He makes a comment that no one here builds amps. I present evidence
>> > to the contrary and this is the best he can do.
>> >
>
> A bunch of pictures of dubious origin...
> Would you care to give us some of your design
> notes? Or did you build this one from someone
> elses schematic?
>
>
>>
>> I think Garvin Yee ("Dr. Slick") has WALG (Worked All Los Gatos) and
>> maybe even WAB (Worked All Berkeley). Does that count?
>>
>> Roy Lewallen, W7EL
>
>
> It certainly does count.
>
> I have also WYM (Worked Yo' Momma!)
>
>
> Slick
>
Garvin

There is a flaw in your reasoning. In order for somebody to copy an amp, or whatever, somebody else still had to design and write up the original. In many cases, you are here talking to that "somebody else".

Tam/WB2TT

1660. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 15:57:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bj2ijpuva960b@corp.supernews.com>
Source record: 74432

Walter Maxwell wrote:
> . . .

> When I receive the requested copy of the BLE paper I'll scan it and publish it
> for all to see.

Is the publishing of copyrighted papers on the Web generally permitted under fair use rules? The IEEE and other publishers of professional papers charge around $25 for downloaded reprints, and I'd think that would cut into their income. Or does the IEEE specifically permit publishing of their papers on the Web?

Roy Lewallen, W7EL

1661. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:02:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119456163.048486.37960@g43g2000cwa.googlegroups.com>
Source record: 74435

Ian White GM3SEK wrote:

> And here you've made that big leap again. Where did "power" come from?
> Nothing in what you or I have said above explains how come the meter can
> read "Watts".

It is calibrated in watts assuming that:

Vfor^2/50 = Ifor^2*50 = Vfor*Ifor = forward power

Vref^2/50 = Iref^2*50 = Vref*Iref = reflected power.

This is in accordance with the laws of physics embodied in the wave
reflection model. '50' in the above equations is critical. In any other
environment besides 50 ohms, the assumptions are not valid and the
calibration will be in error.
--
73, Cecil http://www.qsl.net/w5dxp

1662. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:02:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bj2to3kqt6p58@corp.supernews.com>
Source record: 74430

Walter Maxwell wrote:
>
> In my previous post above I forgot to mention that the displacement currents
> that enter the ground between the radials don't follow the lossy ground to the
> center of the radial system. Instead, they quickly diffract to the nearest
> radial and thus continue toward the center along the radial wire. Consequently,
> the more radials the shorter distance the diffracted current has to travel to
> reach the higher conductivity of the wire. The last I knew the FCC requires only
> 90 radials (every 4ï¿½) to comply with the regulations, but many BC antenna
> engineers use 120 (every 3ï¿½).
>
> I discussed this issue in Chapter 5 in both the 1st and 2nd editions of
> Reflections, with a diagram of the diffraction phenomenon in Fig. 1.

This interaction among radials has quite a dramatic effect on the
effective ground conductivity. I noticed and reported quite some time
ago that Reg's ground radial program produced answers which disagree
strongly with both BLE and NEC-4 modeling (which agree with each other
reasonably well), and speculated that he didn't account for this
interaction in his program. (I haven't checked since to see if the
program has been modified.) All he says about having to trust the writer
of the program if you don't have access to the source code is true.

Roy Lewallen, W7EL

1663. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:17:45 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ch2jb1dj6ru7k0arm0lqhblp9d8nkisrql@4ax.com>
Source record: 74441

On Tue, 21 Jun 2005 11:37:57 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

[snip]

Walt,

Your's was a particularly heroic effort and I commend you for it.

I have taken the data you supplied in text form, converted it to comma
separated values (csv) and imported it into XLZIZL where I can use
your measured input values, add the two different transmission lines
that you used and compute the load resistance at the antenna.

I know that you supplied these results, but I find slightly different
answers and I believe the reason is as follows:

I'm guessing that you calibrated your two lines as one. If I'm wrong,
slap me upside the head.

Depending on the exact type, RG58(x) has slightly different Zo values.
RG141 is specified as 50.0. Your Zo of 54 and your phase constant
suggest a Vp of slightly less than .66, which is remarkably close to
specification, but slightly low, considering the ~5% (2', RG141) of
your composite line has Vp ~ 0.7.

This is really getting fussy, but I'm beginning to believe that to
possibly make a determination about ground characteristics based on
antenna Z measurements, the measurements are going to have to be very
precise.

1664. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:21:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jmvib11b483r8as6psmmusntcpj2arlc26@4ax.com>
Source record: 74521

On Tue, 21 Jun 2005 22:25:32 +0100, Ian White GM3SEK
<g3sek@ifwtech.co.uk> wrote:

>>When
>>there has been a reflection, the samples have opposite polarity and
>>cancel. When there has been no reflection the samples from that
>>direction of travel are in-phase and the sample total is double the
>>contribution of either sample.
>>
>Er, yes, pretty much...

Hi Ian,

To this point there is no controversy, no dispute. Why you should
hedge your assent remains elliptical and probably lies with what you
have to say following.

>That's because it doesn't actually measure watts. It has been calibrated
>in watts under certain specific test conditions, using a different kind
>of wattmeter that actually does measure watts.

All power displays derive from some operations of an implied
mathematical operation and all power displays employ scaling. They
may, each, perform their job through different methods, but all such
methods are still abstractions that require transformation to a common
expression of power. There is nothing distinctive between these
methods (the only separable characteristic) that negates the others
results.

You are going to have to be more explicit about why the Bird's
expression of Power does not yield that characteristic.

73's
Richard Clark, KB7QHC

1665. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:32:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9c3qq$a9g$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74433

There must be at least two variable components on every antenna tuner.
This is because every impedance has two components, R and jX.

With a magloop one variable is the loop tuning capacitor. The other
variable is the diameter of the small coupling loop.

It so happens that the setting of the coupling loop diameter does not
change very much from one band to another. Users who never have to
touch it don't realise how lucky they are compared with other types of
tuner which have at least two knobs.

The main loop and coupling loop are like the primary and secondary
windings on an impedance matching transformer. The turns ratio cannot
be changed but the diameter of the coupling loop can be. The greater
its diameter the greater the coupling.

It so happens that for loops of typical dimensions the ratio of the
two loop diameters is approximately 5-to-1. Optimum setting does
change a little from one band to another as can be seen using program
MAGLOOP4 from website below.

The coupling loop is often screened inside a short length of coax line
because the designer saw it done that way in a magazine. Or he just
copied somebody else's without having any reason.

If there's any noise to be picked up it will be 25 times stronger on
the main loop and nobody bothers to screen THAT. What might be picked
up on the very small coupling loop is quite insignificant in
comparison.

And it's much easier to adjust the coupling between the two loops if
one of them is just a self-supporting length of wire no thicker in
principle than the diameter of the coaxial inner conductor.

Instead of reducing its diameter it can be rotated a little or bent
out of the plane of the main loop to have a similar effect. Or
squashed flatter to reduce the area enclosed.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1666. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:33:33 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <bb4jb1lgv3p39vfn0vlev3tekp2feda9ao@4ax.com>
Source record: 74524

On Wed, 22 Jun 2005 08:57:00 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Walter Maxwell wrote:
>> . . .
>
>> When I receive the requested copy of the BLE paper I'll scan it and publish it
>> for all to see.
>
>Is the publishing of copyrighted papers on the Web generally permitted
>under fair use rules? The IEEE and other publishers of professional
>papers charge around $25 for downloaded reprints, and I'd think that
>would cut into their income. Or does the IEEE specifically permit
>publishing of their papers on the Web?

Unless I'm mistaken, the copyright would have had to been renewed to
remain in effect.

According to this link:

http://www.scils.rutgers.edu/~lesk/copyrenew.html

it was not.

1667. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 16:55:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <oh5jb150hlkrd4o9teucjhif2j9j5285p8@4ax.com>
Source record: 74437

On Wed, 22 Jun 2005 09:33:33 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>According to this link:
>
>http://www.scils.rutgers.edu/~lesk/copyrenew.html
>
>it was not.

Hi Wes,

You should take care to observe the proviso offered:
"This file does not contain listings for music, movies, or
periodicals."

The practice of many journals is that your material, offered for
publication, is accepted only with the explicit rights of ownership
being transferred to that society. In fact, if you were to cite your
own work without giving a reference to that society's publication,
then you could be held accountable for plagiarism.

The "Open Source" movement has sparked a debate in this regard and
academic authors are being better versed on methods that allow them to
both publish and retain rights.

73's
Richard Clark, KB7QHC

1668. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 17:01:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bj6c645oealfc@corp.supernews.com>
Source record: 74427

Wes Stewart wrote:
>
> Unless I'm mistaken, the copyright would have had to been renewed to
> remain in effect.
>
> According to this link:
>
> http://www.scils.rutgers.edu/~lesk/copyrenew.html
>
> it was not.

Thanks for the URL - it looks like it'll come in handy. Unfortunately, the fourth sentence on that page is "This file does not contain listings for music, movies, or periodicals." The BLE paper was published in the _Proceedings of the IRE_, a periodical.

Roy Lewallen, W7EL

1669. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 17:32:36 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <d9c7bsspr1@news.service.uci.edu>
Source record: 74512

Richard Clark wrote:

> On Tue, 21 Jun 2005 22:25:32 +0100, Ian White GM3SEK
> <g3sek@ifwtech.co.uk> wrote:
>
>
>>>When
>>>there has been a reflection, the samples have opposite polarity and
>>>cancel. When there has been no reflection the samples from that
>>>direction of travel are in-phase and the sample total is double the
>>>contribution of either sample.
>>>
>>
>>Er, yes, pretty much...
>
>
> Hi Ian,
>
> To this point there is no controversy, no dispute. Why you should
> hedge your assent remains elliptical and probably lies with what you
> have to say following.
>
>
>>That's because it doesn't actually measure watts. It has been calibrated
>>in watts under certain specific test conditions, using a different kind
>>of wattmeter that actually does measure watts.
>
>
> All power displays derive from some operations of an implied
> mathematical operation and all power displays employ scaling. They
> may, each, perform their job through different methods, but all such
> methods are still abstractions that require transformation to a common
> expression of power. There is nothing distinctive between these
> methods (the only separable characteristic) that negates the others
> results.
>
> You are going to have to be more explicit about why the Bird's
> expression of Power does not yield that characteristic.

I think the problem is not with the meter. The meter simply tells us, based on several assumptions, how much power might be available to a 50 ohm load if the load were positioned appropriately at the meter location. And, by making some additional correct assumptions, we can accurately infer some things about the absorbtion of power at a remote terminus from the measurements. In my opinion, the only problem is in

drawing incorrect inferences about the behavior of nature based on readings taken from the meter, and from some of the less than fortunate terminology which is associated with the meter readings.

ac6xg

1670. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 17:49:11 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <swhue.6715$xm1.2709@fe06.lga>
Source record: 74513

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11bj2ijpuva960b@corp.supernews.com...
> Walter Maxwell wrote:
>> . . .
>
>> When I receive the requested copy of the BLE paper I'll scan it and publish
>> it for all to see.
>
> Is the publishing of copyrighted papers on the Web generally permitted under
> fair use rules? The IEEE and other publishers of professional papers charge
> around $25 for downloaded reprints, and I'd think that would cut into their
> income. Or does the IEEE specifically permit publishing of their papers on the
> Web?
>
> Roy Lewallen, W7EL

Hasn't the copyright expired on material published in 1937?

Walt

1671. Re: Magnetic loop antenna (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 17:53:47 UTC
From: Dick <lbylf3c02@sneakemail.com>
Message-ID: <5KKdnRFSZ-VROCTfRVn-tw@adelphia.com>
Source record: 74514

Reg,
Thanks for the confirming information. I will be making a trip to the attic soon. I presently have the 20m loop fed with a Gamma feed which is not too critical but de-mystifying the "plain" loop coupling seems to be the way to go with more variables in geometry. Hams like lots of things to twiddle.
Dick N3HKN

Reg Edwards wrote:
> There must be at least two variable components on every antenna tuner.
> This is because every impedance has two components, R and jX.
>
> With a magloop one variable is the loop tuning capacitor. The other
> variable is the diameter of the small coupling loop.
>
> It so happens that the setting of the coupling loop diameter does not
> change very much from one band to another. Users who never have to
> touch it don't realise how lucky they are compared with other types of
> tuner which have at least two knobs.
>
> The main loop and coupling loop are like the primary and secondary
> windings on an impedance matching transformer. The turns ratio cannot
> be changed but the diameter of the coupling loop can be. The greater
> its diameter the greater the coupling.
>
> It so happens that for loops of typical dimensions the ratio of the
> two loop diameters is approximately 5-to-1. Optimum setting does
> change a little from one band to another as can be seen using program
> MAGLOOP4 from website below.
>
> The coupling loop is often screened inside a short length of coax line
> because the designer saw it done that way in a magazine. Or he just
> copied somebody else's without having any reason.
>
> If there's any noise to be picked up it will be 25 times stronger on
> the main loop and nobody bothers to screen THAT. What might be picked
> up on the very small coupling loop is quite insignificant in
> comparison.
>
> And it's much easier to adjust the coupling between the two loops if
> one of them is just a self-supporting length of wire no thicker in
> principle than the diameter of the coaxial inner conductor.
>
> Instead of reducing its diameter it can be rotated a little or bent

> out of the plane of the main loop to have a similar effect. Or
> squashed flatter to reduce the area enclosed.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

1672. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 17:56:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1p8jb19iiumukucimfdcs9p0s3p0tb8l98@4ax.com>
Source record: 74515

On Wed, 22 Jun 2005 10:32:36 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>the only problem is in
>drawing incorrect inferences about the behavior of nature based on
>readings taken from the meter, and from some of the less than fortunate
>terminology which is associated with the meter readings.

Hi Jim,

This is the legacy left to all measurements being used. None has any absolute authority, nor is any measurement a truth in isolation. Further, without a statement of accuracy or context, no measurement is even valid of anything in particular.

Behavior is demonstrable, or exhibited. It is measured by perception, or by fine grain tools such as meters (which are pathetic in comparison to the eye, ear, or sense of touch for range AND sensitivity). Behavior that is not demonstrable is the enigma of ethics. Would you steal if no one is watching?

I am fully aware of the sub-text of trying to divorce the Bird Wattmeter from the discussion of waves. However to say it does not measure power necessarily pollutes all instrumentation with the same bias of argument. Hence this logic must eventually devolve to no instrument measures power - or waves - or what have you. Rather pointless in the end.

73's
Richard Clark, KB7QHC

1673. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:03:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9q9jb196pgec4sn8c67k2rb5edqvqgqjav@4ax.com>
Source record: 74516

On Wed, 22 Jun 2005 13:40:26 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

>The design proves beyond all reasonable doubt that the above statements to
>the contrary are, to put it mildly, gravely in error.

Hi Chris,

It looks like you may both have problems.

Tom is quoted here, infrequently, but sparingly so where what "he
says" is often clipped to fit the argument in rebuttal. It would be
far simpler to completely remove what "he says" and present your own
offering for support or examination.

73's
Richard Clark, KB7QHC

1674. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:08:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <02ajb15ohq4hmcte3vfsmdnevk0ssn3sub@4ax.com>
Source record: 74517

On Wed, 22 Jun 2005 13:49:11 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Hasn't the copyright expired on material published in 1937?

Hi Walt,

You cannot imagine how difficult it is to track down rights' holders.
The presumption does not lie in copyright having expired
automatically. Many organizations hire lawyers for no other purpose
than this paper chase. The author's name is becoming increasingly
irrelevant in this age of information.

73's
Richard Clark, KB7QHC

1675. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:10:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9c9i5$os8$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74518

"Walter Maxwell" wrote
> Reg asked if I could send my data as an email, so I converted the
file to text
> format to be able to present the data in full here in this msg.
>
> I checked to see that the tabular format remained intact, and it did
in Outlook
> Express, so here it is. I hope the tabular format will remain intact
in your
> browsers. Be sure to give your screen maximum width. If it doesn't,
let me know
> and I'll resend in PDF format.
>
> Walt, W2DU
>
> Dipole Terminal Impedance Data Obtained From Measurements at Various
Heights
> Above Ground in the Frequency Range from 14.0 to 15.0 MHz.
Measurements Made be
> W2DU at the W2DU site in DeLand, Florida.
==========

Data received as an extension to this message. Fills screen very
nicely.

Thank you very much Walter for your trouble.

Reg, G4FGQ
>
==========

1676. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:34:12 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <$wJVhaak8auCFAWd@ifwtech.co.uk>
Source record: 74519

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>
>> And here you've made that big leap again. Where did "power" come from?
>> Nothing in what you or I have said above explains how come the meter can
>> read "Watts".
>
>It is calibrated in watts assuming that:
>
Thank you, Cecil: those key words "calibrated" and "assuming" are
exactly what I wanted to bring out.

>Vfor^2/50 = Ifor^2*50 = Vfor*Ifor = forward power
>
>Vref^2/50 = Iref^2*50 = Vref*Iref = reflected power.
>
>This is in accordance with the laws of physics embodied in the wave
>reflection model. '50' in the above equations is critical. In any other
>environment besides 50 ohms, the assumptions are not valid and the
>calibration will be in error.

So the printing on the Bird scale depends on a calibration using a
different kind of wattmeter - one that measures real RF power delivered
into a 50 ohm load. But beyond that, the calibration for a mismatched
load depends on a large additional helping of theory.

Those are the reasons for the point I'm always wanting to make about the
Bird: it cannot be called in evidence to "prove" anything about forward
and reflected power, because it is entirely dependent on the theories
under debate.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1677. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:44:33 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <NhkJ15aRGbuCFAA5@ifwtech.co.uk>
Source record: 74448

Richard Clark wrote:
>On Tue, 21 Jun 2005 22:25:32 +0100, Ian White GM3SEK
><g3sek@ifwtech.co.uk> wrote:
>

>>>When
>>>there has been a reflection, the samples have opposite polarity and
>>>cancel. When there has been no reflection the samples from that
>>>direction of travel are in-phase and the sample total is double the
>>>contribution of either sample.
>>>
>>Er, yes, pretty much...
>
>Hi Ian,
>
>To this point there is no controversy, no dispute. Why you should
>hedge your assent remains elliptical

I was giving Richard H the chance to notice that wasn't quite correct,
that's all.

>and probably lies with what you
>have to say following.
>
>>That's because it doesn't actually measure watts. It has been calibrated
>>in watts under certain specific test conditions, using a different kind
>>of wattmeter that actually does measure watts.
>
>All power displays derive from some operations of an implied
>mathematical operation and all power displays employ scaling. They
>may, each, perform their job through different methods, but all such
>methods are still abstractions that require transformation to a common
>expression of power. There is nothing distinctive between these
>methods (the only separable characteristic) that negates the others
>results.
>
>You are going to have to be more explicit about why the Bird's
>expression of Power does not yield that characteristic.

Simply because the theory that converts the Bird's raw readings
(actually rectified RF voltage) into "Watts" on the printed scale is the
very topic that is under discussion.

That means the Bird's readings of "watts" cannot be called as evidence
in the debate. Any argument based on doing so is doomed to be circular.
It *may* still be correct, but that cannot be proved through a circular

argument - you have to find some other way.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1678. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:45:37 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <mliue.7067$mD6.1399@fe07.lga>
Source record: 74443

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:ch2jb1dj6ru7k0arm0lqhblp9d8nkisrql@4ax.com...
> On Tue, 21 Jun 2005 11:37:57 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
> [snip]
>
> Walt,
>
> Your's was a particularly heroic effort and I commend you for it.
>
> I have taken the data you supplied in text form, converted it to comma
> separated values (csv) and imported it into XLZIZL where I can use
> your measured input values, add the two different transmission lines
> that you used and compute the load resistance at the antenna.
>
> I know that you supplied these results, but I find slightly different
> answers and I believe the reason is as follows:
>
> I'm guessing that you calibrated your two lines as one. If I'm wrong,
> slap me upside the head.
>
> Depending on the exact type, RG58(x) has slightly different Zo values.
> RG141 is specified as 50.0. Your Zo of 54 and your phase constant
> suggest a Vp of slightly less than .66, which is remarkably close to
> specification, but slightly low, considering the ~5% (2', RG141) of
> your composite line has Vp ~ 0.7.
>
> This is really getting fussy, but I'm beginning to believe that to
> possibly make a determination about ground characteristics based on
> antenna Z measurements, the measurements are going to have to be very
> precise.
>
>Wes

You're right, Wes, I calibrated the composite line as one line. And I agree that if you calibrate them separately a small difference in the results will be obtained. But I believe the difference will be insignificant. Consider this: The nominal Zo of RG58 is 55 ohms and that of RG141 is 50, as you point out. The measured Zo of the composite line is 54 ohms. Now also consider this: The nominal vf for RG58 is 0.659 and for RG141 is 0.695. Thus the difference in the nominal Zo is 10% and the difference in vf is 5.5%, but the length of the short portion is only 5% of the total length. From these small differences I presumed the error would be significant. You didn't say exactly how much difference you

found, or the procedure you used to determine it.

So I made the following calculations from the data where the height is 10 ft at 14.55 MHz:
First transforming the measured input impedance through the 40 ft of RG58, and then transforming the impedance found at the load end of the RG58 through the 2 ft of RG141. The results are as follows:

At the load end of the RG58 and the input to the RG141: 69.41 - j19.19,
At the load end of the RG141: .....79.23 - j3.25.

At the load end of the RG141 using the composite data: 81.21 - j1.25.

The difference in the R values is only 1.98 ohms and in the X values is only 2 ohms. I consider this degree of error insignificant. Would you not agree?

Walt

1679. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:48:28 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <VxvPBnb8JbuCFAiJ@ifwtech.co.uk>
Source record: 74450

Jim Kelley wrote:
>In my opinion, the only problem is in drawing incorrect inferences
>about the behavior of nature based on readings taken from the meter,
>and from some of the less than fortunate terminology which is
>associated with the meter readings.

Spot-on, Jim.

Oscar Wilde: "I wish I'd said that!"

James McNeill Whistler: "You will, Oscar, you will..."

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1680. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 18:57:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k0bjb15hbe17pqftq78j6982h0igvrlqrd@4ax.com>
Source record: 74449

On Mon, 20 Jun 2005 23:17:40 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>I'd like to hear your comments.

Hi Walt,

On first pass, the results are fairly consistent, but with two
exceptions. I am not sure if this is in my translation to file
formats suitable for Mathcad, or if they lie in your process.

Anyway, a general description:

The granularity of 50Khz appears to not be fine enough to find all
peak resonances for the 9 of the 11 within the band. I have rendered
the data into a sequence of 11 curves (one curve for each height) I
call "Q" where that quality factor relates to the ratio of RL to |XL|.
This was merely a survey to glance at all the data at once and to
observe how the Mathcad sheet was taking shape. To this point this
could as easily be accomplished in Excel. Continuing, I noted that
two sets of height data moved retrograde to the general trend.

That general trend revealed a family of peaks that moved up-frequency
as the antenna height was raised. Two of the peaks were out of the
band. One was above the band (the lowest antenna height) and the
second was below the band (the second lowest antenna height). Of
these two, I would suspect that the first, or lowest antenna height,
was a curve rising to peak at the second (anti)resonance - otherwise,
the trend is progressive with two exceptions.

Those exceptions are found in raising the antenna from 8' to 10' and
from 14' to 16'. The peaks in each of these step changes move counter
to the trend: down-frequency when the height is raised. Again, this
may be entirely a transcription error of my own that I need to
investigate further.

The biggest frequency shift comes with (this is a presumption) lifting
the antenna up off the ground to the one foot level. The next biggest
shift comes with the elevation change to the two foot level - and so
on with progressively smaller shifts in frequency shift and
progressively sharpening of the curves as the antenna is hiked higher.

73's
Richard Clark, KB7QHC

1681. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 19:02:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1119466958.853442.64530@o13g2000cwo.googlegroups.com>
Source record: 74447

Ian White GM3SEK wrote:
> Those are the reasons for the point I'm always wanting to make about the
> Bird: it cannot be called in evidence to "prove" anything about forward
> and reflected power, because it is entirely dependent on the theories
> under debate.

But that makes you a little like the people who believe that man has never walked on the moon. No amount of proof is ever sufficient. And indeed, 1000 years from now, most of what we think we know now will be obsolete.

So all we can do is operate within the laws of physics as we, the human race, understand them to exist at the present time. The debate is underway.

Can photonic wave energy "slosh" around side-to-side at sub-light speeds?

Can the laws of physics embodied in the wave reflection model and conservation of energy/momentum principles really be considered to be "gobblygook" after faithfully serving man during a century of scientific discovery?
--
73, Cecil http://www.qsl.net/w5dxp

1682. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 19:05:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u9djb155uo2o430bnn4mgupmtsqclsb5s8@4ax.com>
Source record: 74451

On Wed, 22 Jun 2005 19:44:33 +0100, Ian White GM3SEK
<g3sek@ifwtech.co.uk> wrote:

>That means the Bird's readings of "watts" cannot be called as evidence
>in the debate. Any argument based on doing so is doomed to be circular.
>It *may* still be correct, but that cannot be proved through a circular
>argument - you have to find some other way.

Hi Ian,

You have simply invalidated any method to prove the debate. In a
sense, yours is an appeal that nothing can be known and hence nothing
can be proven.

Yes, I know this may be "inflammatory," but I would counter: give me
one method of determining power that does not eventually appeal to
circular definitions.

This, of course, comes at the risk of starting yet another endless
round - pun deliberate.

73's
Richard Clark, KB7QHC

1683. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 19:08:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4mdjb15aotn75hkpdcll85nnt1if5jrqui@4ax.com>
Source record: 74445

On 22 Jun 2005 12:02:38 -0700, "Cecil Moore" <w5dxp@hotmail.com>
wrote:
>Can photonic wave energy "slosh" around side-to-side at sub-light
>speeds?
How many errors can you count here?
where the number of words = n
n!

1684. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 19:31:07 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <10jue.6883$xm1.5866@fe06.lga>
Source record: 74444

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:k0bjb15hbe17pqftq78j6982h0igvrlqrd@4ax.com...
> On Mon, 20 Jun 2005 23:17:40 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>>I'd like to hear your comments.
>
> Hi Walt,
>
> On first pass, the results are fairly consistent, but with two
> exceptions. I am not sure if this is in my translation to file
> formats suitable for Mathcad, or if they lie in your process.
>
> Anyway, a general description:
>
> The granularity of 50Khz appears to not be fine enough to find all
> peak resonances for the 9 of the 11 within the band. I have rendered
> the data into a sequence of 11 curves (one curve for each height) I
> call "Q" where that quality factor relates to the ratio of RL to |XL|.
> This was merely a survey to glance at all the data at once and to
> observe how the Mathcad sheet was taking shape. To this point this
> could as easily be accomplished in Excel. Continuing, I noted that
> two sets of height data moved retrograde to the general trend.
>
> That general trend revealed a family of peaks that moved up-frequency
> as the antenna height was raised. Two of the peaks were out of the
> band. One was above the band (the lowest antenna height) and the
> second was below the band (the second lowest antenna height). Of
> these two, I would suspect that the first, or lowest antenna height,
> was a curve rising to peak at the second (anti)resonance - otherwise,
> the trend is progressive with two exceptions.
>
> Those exceptions are found in raising the antenna from 8' to 10' and
> from 14' to 16'. The peaks in each of these step changes move counter
> to the trend: down-frequency when the height is raised. Again, this
> may be entirely a transcription error of my own that I need to
> investigate further.
>
> The biggest frequency shift comes with (this is a presumption) lifting
> the antenna up off the ground to the one foot level. The next biggest
> shift comes with the elevation change to the two foot level - and so
> on with progressively smaller shifts in frequency shift and
> progressively sharpening of the curves as the antenna is hiked higher.
>

> 73's
> Richard Clark, KB7QHC

Very interesting, Richard. I made a cursury check on the retrograde data, and it seems that the trend is in the original measured data. I compared readings of adjacent frequencies for two different heights where the retrograde occurs and found differences in original R values that I can explain only in the possibility of different degrees of soil wetness, because the measurements were not all taken on the same day. The date of each measurement is in the upper left corner of each page. Since the measurements were taken 22 years ago I can't remember whether I logged the rain vs non-rain days, and the original data is in obscure files in Florida. I would not have taken measurements during a rain, but the day after a rain the soil would still have been wetter than the day before the rain. Wetness is the only explanation I can think of for the jerk in the data.

Are your Mathcad graphs in a format suitable for emailing? If so, I'd like to see them.

Walt

1685. Re: 60 meter ERP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 19:34:06 UTC
From: Buck <iam@this.site>
Message-ID: <78fjb19u9l080mepb1gkq1b0sbfitmi5sk@4ax.com>
Source record: 74446

On Wed, 22 Jun 2005 08:41:47 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Please update your program by going to http://eznec.com/eznec_arrl.htm,
>where you'll find a link to download the update. If you encounter the
>problem after updating, please email me.

I keep getting an error: This program is only for use with EZW 3.0

--
73 for now
Buck
N4PGW

1686. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 19:34:19 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <03jue.6890$xm1.409@fe06.lga>
Source record: 74452

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9c9i5$os8$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Walter Maxwell" wrote
>> Reg asked if I could send my data as an email, so I converted the
> file to text
>> format to be able to present the data in full here in this msg.
>>
>> I checked to see that the tabular format remained intact, and it did
> in Outlook
>> Express, so here it is. I hope the tabular format will remain intact
> in your
>> browsers. Be sure to give your screen maximum width. If it doesn't,
> let me know
>> and I'll resend in PDF format.
>>
>> Walt, W2DU
>>
>> Dipole Terminal Impedance Data Obtained From Measurements at Various
> Heights
>> Above Ground in the Frequency Range from 14.0 to 15.0 MHz.
> Measurements Made be
>> W2DU at the W2DU site in DeLand, Florida.
> ==
>
> Data received as an extension to this message. Fills screen very
> nicely.
>
> Thank you very much Walter for your trouble.
> ----
> Reg, G4FGQ
>>
> ==

Fine, Reg, I hope you find the data of interest.

Walt

1687. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 20:11:19 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <IBjue.32$vp6.2109516@news.sisna.com>
Source record: 74453

Chris:

This looks like a new idea to me. I will wind a couple/few and play
with them. If they perform as you state--this is revolutionary.

Now be prepared for attacks from the ego freaks and religious radio
zealots... ESPECIALLY if you are correct... <grin>

John

"Chris Trask" <christrask@earthlink.net> wrote in message
news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...
> In recent days on the QRP-L mailing list, the following remarks
> were
> made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:
>
> "...it is impossible to build a 4:1 ratio current balun that
> uses two 1:1 baluns on a single core."
>
> and:
>
> "It's well established any balun made up of series / parallel
> transmission lines requires different voltages from the start
> to finish of each transmission line. "
>
> I have devised and modeled a 4:1 current balun using two 1:1 baluns on
> a
> single core, and have tested a fully functional prototype. The design
> can
> be built without any core, if so desired. The full disclosure of this
> design with all theory, references, and test results can be obtained
> from my
> web page at:
>
> http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
>
> The design proves beyond all reasonable doubt that the above
> statements to
> the contrary are, to put it mildly, gravely in error.
>
> Chris
>
> ,----------------------. High Performance Mixers and
> / What's all this \ Amplifiers for RF Communications
> / extinct stuff, anyhow? /

> \ _______,--------------' Chris Trask / N7ZWY
> _ |/ Principal Engineer
> oo\ Sonoran Radio Research
> (__)\ _ P.O. Box 25240
> \ \ .' `. Tempe, Arizona 85285-5240
> \ \ / \
> \ '" \ IEEE Senior Member #40274515
> . ( ) \
> '-|)__| :. \ Email: christrask@earthlink.net
> | | | | \ '. http://www.home.earthlink.net/~christrask
> c__; c__; '-..'>.__
>
> Graphics by Loek Frederiks
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1688. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 20:28:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v2ijb11g9bpm34n996eqof2rkr2rbbn0qr@4ax.com>
Source record: 74454

On Wed, 22 Jun 2005 20:15:44 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

>again showing that it is not taken out of context. With very little effort,
>anyone can go through this thread (as well as the spin-off threads).

Hi Chris,

And if I wanted a refinement of what Tom said, does he get the same
chance at dialog as you are seeking?

Too often this turns to one interpreting for Tom (me or you).

Again, you have an issue you wish to present, that's fine, if you want
a debate judged, it needs more than one wrestler.

Strip out the controversy of he-said-she-said and cut to the heart of
what you have to offer. For one, I notice you say you have an
improved BalUn. To me it looks slightly blighted irrespective of what
Tom may have to say (and I certainly don't count him as an authority
on the topic).

73's
Richard Clark, KB7QHC

1689. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 20:30:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2hijb1dd30n9bmlskhnbo0f3f2gobcrhts@4ax.com>
Source record: 74455

On Wed, 22 Jun 2005 15:31:07 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Wetness is the only explanation I can think of for the jerk in the
>data.

Oh, where that comment might lead. :-)

>Are your Mathcad graphs in a format suitable for emailing? If so, I'd like to
>see them.

Hi Walt,

Sure, I will kit that up later today.

73's
Richard Clark, KB7QHC

1690. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 20:51:49 UTC
From: radio913@aol.com
Message-ID: <1119473509.849447.88080@g44g2000cwa.googlegroups.com>
Source record: 74456

Wes Stewart wrote:
> On 21 Jun 2005 23:03:46 -0700, radio913@aol.com wrote:
>
> >
> >
> >Roy Lewallen wrote:
> >> Wes Stewart wrote:
> >> >
> >> > It operated a lot better than "Dr." (not so) Slick does.
> >> >
> >> > He makes a comment that no one here builds amps. I present evidence
> >> > to the contrary and this is the best he can do.
> >> >
>
> What a loser!
> >
> > A bunch of pictures of dubious origin...
>
> Yes, I'm accustomed to keeping photos around for 30 years of someone
> else's work so I can someday pass it off as mine.
>
> >Would you care to give us some of your design
> >notes?
>
> Yes, if I can find them; right after you post some notes and photos of
> one of the many amps I'm sure you've built.
>

Sound to me like you built this one from someone elses
schematic.

> > Or did you build this one from someone
> >elses (sic) schematic?
>
> Read the text, Bozo. And then repeat after me: Rho can be greater
> than one, rho can be greater than one, rho can be greater than one....

Repeat after me, Dweeb-head: Only with Return Gain, Only with
Return Gain, Only with Return Gain.....

Slick

1691. Re: Antenna Impedance Measurements by W2DU

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 20:55:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8tijb1llv7dns883qlmcarld3sqqqtt2f1@4ax.com>
Source record: 74457

On Wed, 22 Jun 2005 15:31:07 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

> I compared readings of
>adjacent frequencies for two different heights where the retrograde occurs and
>found differences in original R values that I can explain only in the
>possibility of different degrees of soil wetness, because the measurements were
>not all taken on the same day.

Hi All,

This is a life's lesson in the value of context and measurement, as
well as in the discipline of taking notes. Walt's memory suggests a
reason for the perturbation observed in the data, and it is not
unreasonable. I would suggest that there is some (however slight)
likelihood that the correlations may be backwards in that most of the
days followed rain, and these perturbations were on dry days.

Before or after is not the issue. Before or after is a matter of
separability which is more important. With analysis, Walt's
conjecture can be tested against the data and what it reveals about
the impact the ground's proximity had on the antenna.

His data, either way, already supports that ground is measurable
within the data that falls outside of the spread of noise and error.
Even if Walt slipped an instrument reading or injected statistical
noise, he did it so consistently that he was always in error in the
same direction (this is called systematic error). This may impact the
accuracy of the final answer, but it does not impact the thesis'
general conclusion. What is more, even if such mischance occurred
(and I doubt it), it is recoverable with one or several cardinal
measurements to correct the earlier bias.

This round of discussion also reveals that bad data is as good as good
data. Those who discard results and tailor their reports stand a good
chance of not discovering how to fix their problems when they are
shown to be in serious error (which is to say they probably rejected
good results). I pointed this threat out in another thread that
linked to exhaustive ground data that showed hills composed of fresh
water.

73's
Richard Clark, KB7QHC

1692. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:12:28 UTC
From: richardharrison@webtv.net
Message-ID: <29996-42B9D43C-82@storefull-3252.bay.webtv.net>
Source record: 74459

Ian White wrote:
"The real technical question is how many, and how long, will be "just enough" for "here"?"

Reminds me of the trailer house designer pulling out reaces until the whole projkect collapses, then rebuilding with only the last brace removed reinstalled.

You don`t need any radials with a horizontal dipole. Broadcasters are launching ground waves to reach a local audience. Amateurs may want ro reach DX with sky waves.
For radials under an earth mounted vertical, there`s no magic number or length. You can add to the count until resistance elimination fades. You can lengthen them until the current at their tips is almost zero. Or, you can just decide how much you will spend on wire. I read that quantity of radials is better than longer radials.

If you want some idea of how conductive soil is, I read that a Variac, ground rods , ammeter and voltmeter is the way to go. Adjust current between the rods to one ampere with the Variac. Resistance between the rods is then the volts between them.

Terman has already supplied Table 22-1 "TYPICAL GROUND CONSTANTS" on page 308 of his 1955 edition for estimating dielectric constant and ground conductivity.

At high frequencies, poor ground conductivity takes eome energy from the reflected wave and the combined direct and reflected wave can`t be a complete cancellation. The direct wave alone is stronger than its combination with an out of phase wave. Ground wave propagetion fades in a short distance at high freqiuencies. So what use does the DXer have for soil conductivity? Isn`t something like Terman`s Table good enough, unless he is considering laying his antenna on or near the soil?

Best regards, Richard Harrison, KB5WZI

1693. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:16:27 UTC
From: w5dxp@arrl.net
Message-ID: <1119474987.959994.179880@g44g2000cwa.googlegroups.com>
Source record: 74458

radio913@aol.com wrote:
> Wes Stewart wrote:
> > Read the text, Bozo. And then repeat after me: Rho can be greater
> > than one, rho can be greater than one, rho can be greater than one....
>
> Repeat after me, Dweeb-head: Only with Return Gain, Only with
> Return Gain, Only with Return Gain.....

Now, now, boys, be nice. Both of you can be right if you are not
talking about *power* gain. Since you are discussing VSWR, rho can be
greater than one AND the voltage return gain can be greater than one.
The voltage across a resonant circuit depends upon the 'Q' and can
certainly be higher than the applied incident voltage. For that exact
same reason, Vref can be higher than Vfor. It occurs when the load is
the conjugate of Z0 and Z0 is not purely resistive.
--
73, Cecil http://www.qsl.net/w5dxp

1694. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:29:33 UTC
From: w5dxp@arrl.net
Message-ID: <1119475773.524743.271970@g43g2000cwa.googlegroups.com>
Source record: 74460

Ian White GM3SEK wrote:
> Jim Kelley wrote:
> >In my opinion, the only problem is in drawing incorrect inferences
> >about the behavior of nature based on readings taken from the meter,
> >and from some of the less than fortunate terminology which is
> >associated with the meter readings.
>
> Spot-on, Jim.

What is the technical content here? I don't see a single equation. The moral seems to be "draw no conclusions because they might be incorrect". Whatever happened to the scientific method where a premise is tested against reality?
--
73, Cecil http://www.qsl.net/w5dxp

1695. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:33:29 UTC
From: richardharrison@webtv.net
Message-ID: <29996-42B9D929-83@storefull-3252.bay.webtv.net>
Source record: 74462

Ian White, GM3SEK wrote:
"That`s because it doesn`t actually measure watts."

Yes. As Ian said, it`s been calibrated in watts.

Your spedometer doesn`t measure miles or hours. It has been calibrated in miles or km per hour. Nor, do you need to drive for miles or hours to get a readout.

Best regards, Richard Harrison, KB5WZI

1696. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:37:13 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <LoCYXYkJoduCFAhP@ifwtech.co.uk>
Source record: 74463

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> Those are the reasons for the point I'm always wanting to make about the
>> Bird: it cannot be called in evidence to "prove" anything about forward
>> and reflected power, because it is entirely dependent on the theories
>> under debate.
>
>But that makes you a little like the people who believe that man has
>never walked on the moon. No amount of proof is ever sufficient.

No, it's not even remotely like that.

>
>So all we can do is operate within the laws of physics as we, the human
>race, understand them to exist at the present time.

And the laws of scientific logic, for example: sticking to your initial assumptions; and being very careful to avoid circular arguments.

>The debate is
>underway.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1697. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:38:31 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <BIlav1kXpduCFADl@ifwtech.co.uk>
Source record: 74461

wrote:
>Ian White GM3SEK wrote:
>> Jim Kelley wrote:
>> >In my opinion, the only problem is in drawing incorrect inferences
>> >about the behavior of nature based on readings taken from the meter,
>> >and from some of the less than fortunate terminology which is
>> >associated with the meter readings.
>>
>> Spot-on, Jim.
>
>What is the technical content here? I don't see a single equation. The
>moral seems to be "draw no conclusions because they might be
>incorrect". Whatever happened to the scientific method where a premise
>is tested against reality?

You lost it somewhere. The moral is "draw no conclusion that could be
incorrect".

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1698. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 21:59:00 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <y4ZWjumk8duCFAnU@ifwtech.co.uk>
Source record: 74464

Richard Clark wrote:
>On Wed, 22 Jun 2005 19:44:33 +0100, Ian White GM3SEK
><g3sek@ifwtech.co.uk> wrote:
>
>>That means the Bird's readings of "watts" cannot be called as evidence
>>in the debate. Any argument based on doing so is doomed to be circular.
>>It *may* still be correct, but that cannot be proved through a circular
>>argument - you have to find some other way.
>
>Hi Ian,
>
>You have simply invalidated any method to prove the debate. In a
>sense, yours is an appeal that nothing can be known and hence nothing
>can be proven.
>
Utter rubbish. I am simply saying that you cannot prove something if you already assumed it as part of the "proof".

>>you have to find some other way.

That's all.

>Yes, I know this may be "inflammatory," but I would counter: give me
>one method of determining power that does not eventually appeal to
>circular definitions.

Certainly. A thermal wattmeter determines the power delivered into a load resistor without making any assumptions about how and why it got there. It only involves measurements of mass, time and temperature rise, and a knowledge of specific heat capacity, so it is completely independent of any assumptions related to RF transmission line theory.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1699. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 22:42:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ernjb1lfb6nhj62hn6d4ohjuf3v02tncjs@4ax.com>
Source record: 74465

On Wed, 22 Jun 2005 22:59:00 +0100, Ian White GM3SEK
<g3sek@ifwtech.co.uk> wrote:

>Certainly. A thermal wattmeter determines the power delivered into a
>load resistor without making any assumptions about how and why it got
>there. It only involves measurements of mass, time and temperature rise,
>and a knowledge of specific heat capacity, so it is completely
>independent of any assumptions related to RF transmission line theory.

Hi Ian,

So here I will follow your plunge into the rabbit hole.

That thermal wattmeter, and I know a variety of them, each very different from the other, has a scale, just like the Bird. Every meter has scaling circuitry for that scale, just like the Bird. Accurate Thermal wattmeters use AC references and need to transform to DC to drive the scale, just like the Bird. Accurate Thermal wattmeters don't even directly measure mass, time, temperature rise, or specific heat capacity - they infer them by comparison. The measurement is balanced against a simpler substitute - one difference from the Bird that is of no consequence.

Every step of the way, there is a conversion performed to meet the needs of displaying a result, just like the Bird.

Further, the best and most accurate thermal wattmeter is as restricted as a Bird Wattmeter because it (they) too is (are) load specific. A 50 Ohm thermal wattmeter is no more correct on a 75 Ohm line than a Bird Wattmeter. Those same thermal wattmeters all quite deliberately employ the same printed restrictions of operation at a known load without reflections present.

If you are trying to make an appeal to a calorimeter, with thermometer in hand, you are simply exacting the algorithms you must use, compared to the already quantified results that the Bird will offer by the similar math being embedded in the coupling and scaling of a tensioned needle indicator in a magnetic field. Current, field, mass, tension, deflection, time - still in the jumble, they evaluate to power. I've calibrated meter movements, balanced needles, replaced springs, adjusted trim pots, tuned capacitance, replaced resistors - and I have worked and calibrated calorimeters, bolometers, thermistors, thermocouples, barreters, Wollaston wires, diodes, thermopiles, black bodies.... But I've said all this before, and it cannot have escaped your attention. So just what is it about this list of thermal technology that is so decidedly uncircular that it trumps the Bird?

There are any number of ways to measure power, none of them are exclusive, and certainly none can claim to achieve this feat through other than ordinary transformation of physical actions.

73's
Richard Clark, KB7QHC

1700. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 22:47:53 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <tUlue.8090$jX6.3233@newsread2.news.pas.earthlink.net>
Source record: 74466

"John Smith" <assemblywizard@gmail.com> wrote:

>
> This looks like a new idea to me. I will wind a couple/few and play
> with them. If they perform as you state--this is revolutionary.
>
> Now be prepared for attacks from the ego freaks and religious radio
> zealots... ESPECIALLY if you are correct... <grin>
>
> John
>

John,
Thank you. I went looking through the extensive literature that I have here before sitting down and coming up with this. After it was all modeled, prototyped, and tested I could only wondered why I had not seen something like this earlier.

I've modeled this as ideal transformers, real-world transformers (with losses and parasitics), ideal transmission lines, and lossy transmission lines and it comes out the same, with minor variations of course. I prototyped it with short coaxial cables as I did in order to minimse the parasitics and show that the models and the concept were basically valid.

I'm already catching some flak, but so far it's mostly pointless dribble and obfuscation. You wouldn't believe some of the nonsense that I've been seeing. One person claims that in order to use ferrite properly with coaxial cables to make them appear shorter the ferrite has to be inside the cable between the outer braid and the centre conductor. He was immediately slam-dunked into the kill filter.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask

c__; c__; '-..'>.__

Graphics by Loek Frederiks

> "Chris Trask" <christrask@earthlink.net> wrote in message
> news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...
> > In recent days on the QRP-L mailing list, the following remarks
> > were
> > made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:
> >
> > "...it is impossible to build a 4:1 ratio current balun that
> > uses two 1:1 baluns on a single core."
> >
> > and:
> >
> > "It's well established any balun made up of series / parallel
> > transmission lines requires different voltages from the start
> > to finish of each transmission line. "
> >
> > I have devised and modeled a 4:1 current balun using two 1:1 baluns on
> > a
> > single core, and have tested a fully functional prototype. The design
> > can
> > be built without any core, if so desired. The full disclosure of this
> > design with all theory, references, and test results can be obtained
> > from my
> > web page at:
> >
> > http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
> >
> > The design proves beyond all reasonable doubt that the above
> > statements to
> > the contrary are, to put it mildly, gravely in error.
> >
> > Chris
> >
> > ,----------------------. High Performance Mixers and
> > / What's all this \ Amplifiers for RF Communications
> > / extinct stuff, anyhow? /
> > \ _______,--------------' Chris Trask / N7ZWY
> > _ |/ Principal Engineer
> > oo\ Sonoran Radio Research
> > (__)\ _ P.O. Box 25240
> > \ \ .' `. Tempe, Arizona 85285-5240
> > \ \ / \
> > \ '" \ IEEE Senior Member #40274515
> > . ( ) \
> > '-|)__| :. \ Email: christrask@earthlink.net
> > | | | | \ '. http://www.home.earthlink.net/~christrask
> > c__; c__; '-..'>.__
> >

> > Graphics by Loek Frederiks
> >
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>

1701. Re: 60 meter ERP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 22:52:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bjqubjuotauda@corp.supernews.com>
Source record: 74467

Buck wrote:
> On Wed, 22 Jun 2005 08:41:47 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Please update your program by going to http://eznec.com/eznec_arrl.htm,
>>where you'll find a link to download the update. If you encounter the
>>problem after updating, please email me.
>
>
>
> I keep getting an error: This program is only for use with EZW 3.0

That's very strange, and something I don't understand. Please email me
so we can resolve this via email.

Roy Lewallen, W7EL

1702. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-22 23:13:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bjs5o2p360e62@corp.supernews.com>
Source record: 74468

Walter Maxwell wrote:
>
> Hasn't the copyright expired on material published in 1937?

Hm. The way I read http://www.copyright.gov/circs/circ1.html#hlc, it has. It looks to me like the original copyright was good for 28 years and for copyrights originally issued in 1937, renewal (if done) was good for another 28. That would put it in the public domain after 1993. I'd sure appreciate comments from someone who's actually familiar with the law -- it's pretty convoluted and I'm not at all confident about my interpretation.

Roy Lewallen, W7EL

1703. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 00:10:21 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <h4ujb19r783i09k19a9so54dlv5c9nt70a@4ax.com>
Source record: 74469

On Wed, 22 Jun 2005 16:13:55 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Walter Maxwell wrote:
>>
>> Hasn't the copyright expired on material published in 1937?
>
>Hm. The way I read http://www.copyright.gov/circs/circ1.html#hlc, it
>has. It looks to me like the original copyright was good for 28 years
>and for copyrights originally issued in 1937, renewal (if done) was good
>for another 28. That would put it in the public domain after 1993. I'd
>sure appreciate comments from someone who's actually familiar with the
>law -- it's pretty convoluted and I'm not at all confident about my
>interpretation.

True it gets very complicated, especially when the likes of Disney get
an act through Congress to copyright Mickey Mouse forever.

http://writ.news.findlaw.com/commentary/20020305_sprigman.html

Unfortunately, the Supreme Court was not interested in the
constitutional aspects of this monstrosity and let it stand.

The average citizen can afford to bribe his local officials (democracy
in action), but when it comes to Congress, you need real money.

Publish the paper Walt, the authors are all gone (I think, but you
know better than I) the IRE is gone too; what are they going to do,
come back from the grave and sue you?

1704. Re: 60 meter ERP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 00:12:26 UTC
From: Korbin Dallas <korbindallas@dodgeit.com>
Message-ID: <pan.2005.06.23.00.12.15.465792@dodgeit.com>
Source record: 74470

On Wed, 22 Jun 2005 09:39:15 -0400, Buck wrote:

> I am trying to calculate how much power I am allowed to run to operate
> on 60 meters. Here are the two antennas:
>
> 1) 80 meter dipole 129 feet long. The antenna is fed with cable TV
> coax with only the following markings: E83032 F6SSVV (UL) CATV
> There is no balun on the line. Just the 75 feet of coax from the back
> of my tuner to the antenna. The tuner is fed with RG-8X-95 coax 3
> feet long.
>
> 2) Antenna Specialists 75 meter mobile whip antenna. The windings
> will be removed until it matches on the center 60 meter frequency.
> The antenna will be mounted on a mag-mount on the top of a Ford
> Aspire.

FWIW:

1) I doubt this antenna system shows any gain on 60m, most dipoles of this construction wont when operated off resonance. With only 3 db of loss you can safely run 100 watts, Just tune up and go.

2) Antenna Efficiency is so low on HF mobile antennas 100w will not exceed the 50w EIRP limits.

--
Korbin Dallas
The name was changed to protect the guilty.

1705. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 00:18:21 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ltvjb1t2n6tbplrcumkicuc84j4vanbv1l@4ax.com>
Source record: 74471

On Wed, 22 Jun 2005 16:12:28 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Ian White wrote:
>"The real technical question is how many, and how long, will be "just
>enough" for "here"?"
>
>Reminds me of the trailer house designer pulling out reaces until the
>whole projkect collapses, then rebuilding with only the last brace
>removed reinstalled.

Sounds like the guy works for Fleetwood.

Here's an example of their fine American craftsmanship used on my fifth-wheel trailer. Actually I think they probably have a crew of illegal aliens doing the work but who knows.

http://users.triconet.org/wesandlinda/POS_MallardByFleetwood.jpg

The awning upright kept the sheet from tearing off completely and landing in the middle of I-10 (75 mph limit). Adding insult to injury, I had just increased my insurance deductable before the trip from $200 to $1K to "save money."

1706. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 00:56:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bk26p2qdapbf1@corp.supernews.com>
Source record: 74472

Wes Stewart wrote:
> . . .
> Publish the paper Walt, the authors are all gone (I think, but you
> know better than I) the IRE is gone too; what are they going to do,
> come back from the grave and sue you?

The authors didn't own the copyright. (If they did, it would be the property of their heirs if still valid.) But the IRE isn't gone -- it merged with the IEE, back in the '60s as I recall, to become the IEEE. If the copyright is valid, they're its owner. And they might sue.

Roy Lewallen, W7EL

1707. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 01:30:20 UTC
From: richardharrison@webtv.net
Message-ID: <28727-42BA10AC-89@storefull-3258.bay.webtv.net>
Source record: 74473

Wes, N7WS wrote:
"Sounds like the guy who works for Fleetwood."

Did not expect to hit a nerve with my story of "Value Engineering". Fleetwood could be called Fleetaluminum after Wes` skin peeled and sailed down I-10 at 75 mph.

When you are making many examples of a product it makes sense to minimize cost if you don`t compromise the product.

A guy in my college class was hired by a car radio manufacturer. He spent most of his first 18 months with the company eliminating a single nut and bolt in a vibrator. His starting salery probably wasn`t much, but I doubt they ever produced enough vibrators to recoup the cost of their design improvement which saved a single fastener. His work must have been akin to that of T.A. Edison finding the right stuff for the filament of an incandescent lamp, finding a thousand things that didn`t work before finding one which did.

Best regards, Richard Harrison, KB5WZI

1708. Re: Antenna modeling turorial?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 01:45:56 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1119491156.144988.241760@g44g2000cwa.googlegroups.com>
Source record: 74474

Best antenna modeling and building techniques is from a CBer at
http://www.signalengineering.com/ultimate/

Check it out and it will take you wherever you wish to go!
Blue Dawg

1709. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 01:47:56 UTC
From: dplatt@radagast.org
Message-ID: <11bk56cdj6jpg0b@corp.supernews.com>
Source record: 74375

In article <11bjs5o2p360e62@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>Hm. The way I read http://www.copyright.gov/circs/circ1.html#hlc, it
>has. It looks to me like the original copyright was good for 28 years
>and for copyrights originally issued in 1937, renewal (if done) was good
>for another 28.

That's the first thing to check - see if there's any record of the
renewal actually taking place in 1964 or 1965. If it didn't, then the
work would have entered the public domain effective 1/1/1966, I believe.

> That would put it in the public domain after 1993.

Here's where I differ with you. The copyright law which went into
effect on 1/1/78 automatically extended the second (renewal) term of
copyright, for works which had been originally copyrighted before 1950
and on which the copyright had been renewed before 1/1/78. The second
(28-year) term was automatically lengthened to 67 years, giving a
total of 95 years of protection.

So: if the work's original 28-year copyright was not renewed, then it
fell into the public domain in 1966.

If the work's original 28-year copyright *was* renewed in its last
ear, then the second 28-year term was effective, was automatically
extended to 67 years by the Copyright Act of 1976, and is still in
force today.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1710. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 02:31:21 UTC
From: CAM <w5dxp@arrl.net>
Message-ID: <1119493881.019774.201430@g47g2000cwa.googlegroups.com>
Source record: 74376

Ian White GM3SEK wrote:
> You lost it somewhere. The moral is "draw no conclusion that could be
> incorrect".

Every technical conclusion that you can possibly draw today will
probably be proven incorrect during the next 1000 years. All we have
today is the limit of human knowledge. Newton was wrong about light.
Einstein was wrong about entanglement. Methinks you have to be a god
not to draw incorrect conclusions.
--
73, Cecil http://www.qsl.net/w5dxp

1711. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 02:48:38 UTC
From: CAM <w5dxp@arrl.net>
Message-ID: <1119494918.164999.289700@g43g2000cwa.googlegroups.com>
Source record: 74377

Ian White GM3SEK wrote:
> Cecil Moore wrote:
> >So all we can do is operate within the laws of physics as we, the human
> >race, understand them to exist at the present time.
>
> And the laws of scientific logic, for example: sticking to your initial
> assumptions; and being very careful to avoid circular arguments.

OK, let's take an example. The source (SGCL) is a signal generator with
a circulator and 50 ohm resistor circulator load. The load is a 291.5
ohm resistor.

100W SGCL---Bird---50 ohm lossless coax---291.5 ohm load

We measure 50 watts delivered to the 291.5 ohm load. We measure 50
watts dissipated in the 50 ohm circulator load resistor. The Bird reads
100 watts forward power and 50 watts reflected power. Modulation proves
that the 50 watts absorbed in the circulator resistor has made a round
trip to the 291.5 ohm load and back. Everything obeys the laws of
physics embodied in the wave reflection model and the conservation of
energy/momentum principles. What else is there to know?
--
73, Cecil http://www.qsl.net/w5dxp

1712. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 03:00:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e99kb1lmqp2m6nm81gb0gkmlqct19ee6be@4ax.com>
Source record: 74378

On Wed, 22 Jun 2005 20:30:20 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>His work must
>have been akin to that of T.A. Edison finding the right stuff for the
>filament of an incandescent lamp

Hi Richard,

Right kind of hymn, wrong inventor for the chorus. It was Ford who was approached by his engineers with a carburetor with two screws holding it together. He challenged them to return only when they had reduced it to one screw.

73's
Richard Clark, KB7QHC

1713. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 03:49:57 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <qebkb197bkj76g0249gqi9c0ucqo6rnmbo@4ax.com>
Source record: 74379

On Wed, 22 Jun 2005 17:56:52 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Wes Stewart wrote:
>> . . .
>> Publish the paper Walt, the authors are all gone (I think, but you
>> know better than I) the IRE is gone too; what are they going to do,
>> come back from the grave and sue you?
>
>The authors didn't own the copyright. (If they did, it would be the
>property of their heirs if still valid.) But the IRE isn't gone -- it
>merged with the IEE, back in the '60s as I recall, to become the IEEE.
>If the copyright is valid, they're its owner. And they might sue.

All true, but...

Suppose that the IEEE has a staff of lawyers sitting around picking
their collective noses and they get wind of some ham (who actually
knew the authors) posting a copy of a document published in 1937 and
practically incorporated by reference in every FCC licensed broadcast
station's proof of performance.

They can't prove any financial harm, except maybe they didn't sell a
copy of the document for $25 and even at that there is some
possibility that the usage is "fair" in that it's for "research
purposes", do you think they will sue?

Section 107 of the Copyright Act of 1976. Limitations on exclusive
rights: Fair Use

Notwithstanding the provisions of sections 106 and 106A, the fair
use of a copyrighted work, including such use by reproduction in
copies or phonorecords or by any other means specified in that
section, for purposes such as criticism, comment, news reporting,
teaching (including multiple copies for classroom use), scholarship,
or research, is not an infringement of copyright.

1714. NEEDED: stainless steel push on reiianer rings for 3/16" rod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 04:48:29 UTC
From: Photoman <photoman28@hotmail.com>
Message-ID: <f7Sdnd9eCtWNoiffRVn-3Q@adelphia.com>
Source record: 74380

I'm building a few yagis for 432 and two meters and need a source for stainless steel push on retainer rings, sometimes called push nuts (incorrectly) to fit element diameter of 3/16" aluminum rod. I know they are made but cannot find a source searching with Google. Any help here would be appreciated. I have the spring steel variety but they rust after 2 or 3 years so the antennas have to be taken down and the retainers replaced.

Thanks and 73,
Ken, KC4IH
Remove the (nospam) to reply or reply to the group.

--

Have your doctor check your blood sugar at least once a year.

1715. Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 06:14:34 UTC
From: Oliver Gebele <oliver.gebele@tiscali.de>
Message-ID: <d9dk3l$1fvh$1@ulysses.news.tiscali.de>
Source record: 74381

Hi,

i am using a Collins-Filter with 2 variable
capacitors and a switched inductor (Pi).
Obviously there are infinitely many possibilities
to match an antenna.Are there any preferred
possibilities? And how would i adjust my box
to do this? (Maybe there are already links on
the internet that i did not find.)

TIA & 73, Oliver

1716. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 06:23:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Tzsue.1390$N22.575@newssvr21.news.prodigy.com>
Source record: 74382

w5dxp@arrl.net wrote:
> radio913@aol.com wrote:
>
>>Wes Stewart wrote:
>>
>>>Read the text, Bozo. And then repeat after me: Rho can be greater
>>>than one, rho can be greater than one, rho can be greater than one....
>>
>>Repeat after me, Dweeb-head: Only with Return Gain, Only with
>>Return Gain, Only with Return Gain.....
>
>
> Now, now, boys, be nice. Both of you can be right if you are not
> talking about *power* gain. Since you are discussing VSWR, rho can be
> greater than one AND the voltage return gain can be greater than one.
> The voltage across a resonant circuit depends upon the 'Q' and can
> certainly be higher than the applied incident voltage. For that exact
> same reason, Vref can be higher than Vfor. It occurs when the load is
> the conjugate of Z0 and Z0 is not purely resistive.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

Given a 396 meter length of Radio Shack RG58. At 250 kiloherz TLD says
(after some manipulation) that it has a propagation constant of
689.6 X 10^-9 + j7.933 X 10^-3. Zo is 50 -j4.344. Feed it with a
voltage source of 100 volts with a source resistance of 50 ohms.
Put a load on it of j50 ohms. The voltage reflection coefficient at the
load is -4.116 X 10^-3 + j1.091. The absolute value of this number is
1.091, a number greater than one. The power into this line is .1088
Watts. Fine. However, if I calculate the power at the middle of
the line, I get -34.42 watts, a negative number. Moreover, the SWR
calculated at the beginning of the line is -23.21.
What is negative average power?
What does a negative SWR signify?
73,
Tom Donaly, KA6RUH

1717. Re: get ready for field day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 06:39:07 UTC
From: jcooper874@webtv.net
Message-ID: <13615-42BA590B-47@storefull-3275.bay.webtv.net>
Source record: 74383

u cry babys

1718. Re: get ready for field day

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 07:11:39 UTC
From: dvd567@webtv.net
Message-ID: <29865-42BA60AB-123@storefull-3278.bay.webtv.net>
Source record: 74384

JESUS CHRIST IS THE REAL VET.AND THE REAL VETS THAT PAID FOR THIS
COUNTRY WAS . POW .AND THE ONES WHO DIED IN THE WAR. SO THE POINT IS
CHILL OUT ALL THINK ALL OWN THE HAM BANDS WE FREEBANDERS ARE TAKEING
OVER WHO CARES IF ALL HAD TO LEARN CW BIG DEAL EVERY DAY IS FIELD DAY
FOR US

1719. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 07:24:31 UTC
From: Owen <none@no.where>
Message-ID: <Pstue.1310$oJ.1224@news-server.bigpond.net.au>
Source record: 74385

Tom Donaly wrote:

> Given a 396 meter length of Radio Shack RG58. At 250 kiloherz TLD says
> (after some manipulation) that it has a propagation constant of
> 689.6 X 10^-9 + j7.933 X 10^-3. Zo is 50 -j4.344. Feed it with a

Doesn't that imply that the the matched line loss at 0.25MHz is
689.6E-9*20*e^1*100 dB/100m?

That is 0.0006dB/100m, it seems too good to be true!

Owen

1720. regolazione antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 10:27:42 UTC
From: Nico <pituffo@libero.it>
Message-ID: <y8wue.32955$b5.1435976@news3.tin.it>
Source record: 74386

vorrei sapere come si fa a stabilire la migliore posizione dell'antenna per un'ottima ricezione
...

1721. Re: regolazione antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 12:52:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <32cb4$42bab077$97d55d24$22002@ALLTEL.NET>
Source record: 74387

Ci no separare la risposta. Il pi alto sopra groung lei pu prenderlo, il
meglio. Molti altri fattori che la mia stretta povera di marche italiane
difficili.

"Nico" <pituffo@libero.it> wrote in message
news:y8wue.32955$b5.1435976@news3.tin.it...
>
> vorrei sapere come si fa a stabilire la migliore posizione dell'antenna
per
> un'ottima ricezione
> ...
>
>
>

1722. NEEDED: Stainless steel push on retainer rings for 3/16" rod. Who sells them???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 13:55:20 UTC
From: Photoman <photoman28@hotmail.com>
Message-ID: <1_edndEJR5enIiffRVn-iA@adelphia.com>
Source record: 74388

I'm building a few yagis for 432 and two meters and need a source for stainless steel push on retainer rings, sometimes called push nuts (incorrectly) to fit element diameter of 3/16" aluminum rod. I know they are made but cannot find a source searching with Google. Any help here would be appreciated. I have the spring steel variety but they rust after 2 or 3 years so the antennas have to be taken down and the retainers replaced.

Thanks and 73,
Ken, KC4IH
Remove the (nospam) to reply or reply to the group.

--

Have your doctor check your blood sugar at least once a year.

1723. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 15:08:09 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <tfAue.32168$J12.25554@newssvr14.news.prodigy.com>
Source record: 74389

Owen wrote:
> Tom Donaly wrote:
>
>> Given a 396 meter length of Radio Shack RG58. At 250 kiloherz TLD says
>> (after some manipulation) that it has a propagation constant of
>> 689.6 X 10^-9 + j7.933 X 10^-3. Zo is 50 -j4.344. Feed it with a
>
>
> Doesn't that imply that the the matched line loss at 0.25MHz is
> 689.6E-9*20*e^1*100 dB/100m?
>
> That is 0.0006dB/100m, it seems too good to be true!
>
> Owen
Hi Owen,
It is too good to be true. (Just consider it came from an unusually
good batch.) The whole exercise is nonsensical, though,
because it results in negative power and a negative SWR. Increase the
loss to a more realistic value and the negative power goes away as
does the negative SWR while the absolute value of the reflection
coefficient is still greater than 1. I was hoping I could get some
kind of nut philosophical justification for negative average power
out of Cecil, but you sprang the trap.
73,
Tom Donaly, KA6RUH

1724. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 15:26:54 UTC
From: richardharrison@webtv.net
Message-ID: <10396-42BAD4BE-227@storefull-3254.bay.webtv.net>
Source record: 74390

Walter Maxwell, W2DU proposed a fast way to determine earth loss at radio frequencies without digging into the earth.

"Earth Constants", conductivity and permittivity, affect ground wave propagation and terrestrial reflections.. They may predict or explain some propagation. They al;so affect operation of nearby antennas.

Earth permittivity is the ratio of a capacitor`s capacitance using an earth sample as a dielectric, to its capacitance using air as the dielectric. Under "permittivity" my dictionary says: "-See Dielectric Constant.".

Earth conductivity is defined as the conductance between opposite faces of a unit cube (usually 1.0 cubic meter) of a given earth material, e.g. rock, sand, clay, loam, water, etc. Hoe do you measure this without changing its value?

Conductivity and permittivity are affected by chemical and physical composition, moisture, and temperature (especially freezing).

Earth constants are functions of frequency and antenna polarization. R.F. determination seems best.

Best regards, Richard Harrison, KB5WZI

1725. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 15:37:34 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <2HAue.1141$2S.251@fe03.lga>
Source record: 74391

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:qebkb197bkj76g0249gqi9c0ucqo6rnmbo@4ax.com...
> On Wed, 22 Jun 2005 17:56:52 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>Wes Stewart wrote:
>>> . . .
>>> Publish the paper Walt, the authors are all gone (I think, but you
>>> know better than I) the IRE is gone too; what are they going to do,
>>> come back from the grave and sue you?
>>
>>The authors didn't own the copyright. (If they did, it would be the
>>property of their heirs if still valid.) But the IRE isn't gone -- it
>>merged with the IEE, back in the '60s as I recall, to become the IEEE.
>>If the copyright is valid, they're its owner. And they might sue.
>
> All true, but...
>
> Suppose that the IEEE has a staff of lawyers sitting around picking
> their collective noses and they get wind of some ham (who actually
> knew the authors) posting a copy of a document published in 1937 and
> practically incorporated by reference in every FCC licensed broadcast
> station's proof of performance.
>
> They can't prove any financial harm, except maybe they didn't sell a
> copy of the document for $25 and even at that there is some
> possibility that the usage is "fair" in that it's for "research
> purposes", do you think they will sue?
>
> Section 107 of the Copyright Act of 1976. Limitations on exclusive
> rights: Fair Use
>
> Notwithstanding the provisions of sections 106 and 106A, the fair
> use of a copyrighted work, including such use by reproduction in
> copies or phonorecords or by any other means specified in that
> section, for purposes such as criticism, comment, news reporting,
> teaching (including multiple copies for classroom use), scholarship,
> or research, is not an infringement of copyright.

Seems to me, Wes, that our use on the group could be considered criticism, comment and teaching. So far I haven't received anything from the library, so we'll see what happens.

Walt

1726. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 16:08:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9empt$mo7$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74392

"Richard Harrison" wrote

> Earth constants are functions of frequency and antenna polarization.
> R.F. determination seems best.
>
==========

You seem to know something about it Rixhard.

How is it done?

Reg

1727. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 16:35:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p2plb114fii732olfs0gjeaspcib1v5lp5@4ax.com>
Source record: 74393

On Thu, 23 Jun 2005 11:37:34 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Seems to me, Wes, that our use on the group could be considered criticism,
>comment and teaching. So far I haven't received anything from the library, so
>we'll see what happens.

Hi Walt,

Do you have a BailPal account that we can chip into?

73's
Richard Clark, KB7QHC

1728. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 17:09:58 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <H1Cue.7001$Gp.5841@fe04.lga>
Source record: 74394

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:p2plb114fii732olfs0gjeaspcib1v5lp5@4ax.com...
> On Thu, 23 Jun 2005 11:37:34 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>>Seems to me, Wes, that our use on the group could be considered criticism,
>>comment and teaching. So far I haven't received anything from the library, so
>>we'll see what happens.
>
> Hi Walt,
>
> Do you have a BailPal account that we can chip into?
>
> 73's
> Richard Clark, KB7QHC

Sorry Richard I don't know what a BailPal is. Or are you yankin my leg? Or on the other hand are you being a compassionate soul in case I get sued?

In the meantime I've only had a short time to review the Mathcad info, but I'll have some questions on it for you shortly.

Walt

1729. Re: 60 meter ERP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 17:15:14 UTC
From: Buck <iam@this.site>
Message-ID: <lgrlb11tsvg5akjbm5up23ed39iqsbbugk@4ax.com>
Source record: 74395

>That's very strange, and something I don't understand. Please email me
>so we can resolve this via email.
>
>Roy Lewallen, W7EL

Thank you.

--
73 for now
Buck
N4PGW

1730. Re: NEEDED: Stainless steel push on retainer rings for 3/16" rod. Who sells them???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 17:36:44 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1119548204.335848.193130@g44g2000cwa.googlegroups.com>
Source record: 74396

Photoman (nospam) wrote:
> I'm building a few yagis for 432 and two meters and need a source for
> stainless steel push on retainer rings, sometimes called push nuts
> (incorrectly) to fit element diameter of 3/16" aluminum rod. I know they are
> made but cannot find a source searching with Google. Any help here would be
> appreciated. I have the spring steel variety but they rust after 2 or 3
> years so the antennas have to be taken down and the retainers replaced.

Go to http://www.mcmaster.com/

Run a search in the catalog for "97200A/120"

> Thanks and 73,
> Ken, KC4IH
> Remove the (nospam) to reply or reply to the group.

Brian w3rv

1731. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 17:49:12 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <4atlb1ljr60hb47tbk7k8ft6h6vo54o6ke@4ax.com>
Source record: 74397

On Thu, 23 Jun 2005 08:14:34 +0200, Oliver Gebele
<oliver.gebele@tiscali.de> wrote:

>Hi,
>
>i am using a Collins-Filter with 2 variable
>capacitors and a switched inductor (Pi).
>Obviously there are infinitely many possibilities
>to match an antenna.Are there any preferred
>possibilities? And how would i adjust my box
>to do this? (Maybe there are already links on
>the internet that i did not find.)
>
>TIA & 73, Oliver

If you go to the mfj website http://www.mfjenterprises.com and look at
their antenna tuners, you can download the instruction manuals for
them. The general adjustment instructions for their 2/capacitor/1
inductor tuners will work fine for you -- try the manual for their
989c tuner.

bob
k5qwg

1732. Re: NEEDED: Stainless steel push on retainer rings for 3/16" rod. Who sells them???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 17:54:25 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1119549265.137728.287670@f14g2000cwb.googlegroups.com>
Source record: 74398

Brian Kelly wrote:

>
> Run a search in the catalog for "97200A/120"

Oops: "97200A120" . . . .

1733. Re: NEEDED: stainless steel push on reiianer rings for 3/16" rod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 18:56:25 UTC
From: dplatt@radagast.org
Message-ID: <11bm1epbmkucc8e@corp.supernews.com>
Source record: 74399

>I'm building a few yagis for 432 and two meters and need a source for
>stainless steel push on retainer rings, sometimes called push nuts
>(incorrectly) to fit element diameter of 3/16" aluminum rod. I know they are
>made but cannot find a source searching with Google. Any help here would be
>appreciated. I have the spring steel variety but they rust after 2 or 3
>years so the antennas have to be taken down and the retainers replaced.

Don't know of a source for stainless steel in that size, unfortunately.

www.smallparts.com has retaining rings in stainless, but not for
anything smaller than 1/4" diameter. Their RE series is zinc-plated
spring steel, with the exception of the RE-02 and RE-03 (the latter is
for 3/16" shafts) which are beryllium copper. Perhaps this latter
would do, if you coated the aluminum rod with a copper-to-aluminum
compatibility compound to reduce electrolytic interaction?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1734. Re: NEEDED: Stainless steel push on retainer rings for 3/16" rod. Who sells them???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 19:21:56 UTC
From: Dave <noone@nowhere.com>
Message-ID: <X76dnV_ry8NBlibfRVn-sg@crocker.com>
Source record: 74400

google is our friend:
http://www.bakfin.com/starlock/roundshaft.html
you might also want to ask http://www.m2inc.com/ where they buy them. their
40m4lldd i just put together used 3/16" stainless retainer clips like you
want.

"Photoman" <photoman28(nospam)@hotmail.com> wrote in message
news:1_edndEJR5enIiffRVn-iA@adelphia.com...
> I'm building a few yagis for 432 and two meters and need a source for
> stainless steel push on retainer rings, sometimes called push nuts
> (incorrectly) to fit element diameter of 3/16" aluminum rod. I know they
> are
> made but cannot find a source searching with Google. Any help here would
> be
> appreciated. I have the spring steel variety but they rust after 2 or 3
> years so the antennas have to be taken down and the retainers replaced.
>
> Thanks and 73,
> Ken, KC4IH
> Remove the (nospam) to reply or reply to the group.
>
>
> --
>
>
> Have your doctor check your blood sugar at least once a year.
>

1735. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 19:29:51 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1119554991.240126.47990@g49g2000cwa.googlegroups.com>
Source record: 74401

Oliver Gebele wrote:
> Hi,
>
> i am using a Collins-Filter with 2 variable
> capacitors and a switched inductor (Pi).
> Obviously there are infinitely many possibilities
> to match an antenna.Are there any preferred
> possibilities? And how would i adjust my box
> to do this? (Maybe there are already links on
> the internet that i did not find.)

Inductors are lossy. Capacitors are not. Use the tuner settings which provide a 2:1 VSWR match or better with the least possible amount of inductance. In other words use the least amount of inductance you can get away with.

> TIA & 73, Oliver

w3rv

1736. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 19:47:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9f3jo$1js$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74402

"Owen" wrote
> Reg, I mentioned in an earlier post that I was concerned about the
> estimate of the loop inductance.

Owen,

The HF inductance of a square loop is -

L = 0.8 * H * (Ln(4 * H / D) - 1.467) microhenries,

where H is length of one side,

and D is diameter of circular conductor,

both dimensions are in metres.

There are half a dozen other formulas which at first appear to be different from the above but can be mathematically transformed to be identical. And then there are imperial and metric units.

I got it out of one of one of my old notebooks. It's what I use in my programs. I think I stole it from Terman. And Terman stole it from Grover. So it's sure to be accurate enough for anything you are ever likely to use it for.

It is obviously an approximation because when a large conductor diameter is comparable with a very short length of side, the inductance has a negative value.

As a sanity check, compare it with whatever formula you have used up to now.

Reg, G4FGQ

1737. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 22:06:33 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <cqamb11unhok3belek066s8iga2nteivc7@4ax.com>
Source record: 74403

On 23 Jun 2005 12:29:51 -0700, "Brian Kelly" <kelly@dvol.com> wrote:

>
>Oliver Gebele wrote:
>> Hi,
>>
>> i am using a Collins-Filter with 2 variable
>> capacitors and a switched inductor (Pi).
>> Obviously there are infinitely many possibilities
>> to match an antenna.Are there any preferred
>> possibilities? And how would i adjust my box
>> to do this? (Maybe there are already links on
>> the internet that i did not find.)
>
>Inductors are lossy. Capacitors are not. Use the tuner settings which
>provide a 2:1 VSWR match or better with the least possible amount of
>inductance. In other words use the least amount of inductance you can
>get away with.

Let's examine this statement.

First all should note that this is a pi-network. Suggestions to use
an MFJ (tee-network) tuning procedure are wrong.

Here is a random example made up on the spur of the moment.

Assume the load is 20 +j50 @ 14 MHz. SWR = 5.2

Also assume that the tuning capacitor(s) Q = 500 and the inductor Q =
200, both typical values.

A nearly optimum solution, from a match and loss standpoint is:

Cin = 140.3 pF, L = .958 uH, Cout = 333.6 pF.

The input z = 49.69 +j0.03 or SWR = 1.006 , Loss = 0.09 dB.

Now, let's force the inductance to a lower value.

Cin = 422 pF, L = 0.67 uH, Cout = 471.3 pF.

The input Z = 49.6 -j0.04 or SWR = 1.008 but the loss = 0.18 dB.

The loss doubled when the inductance was lowered.

All of this is easily calculated using a free tool: XLZIZL.xls.

>
>> TIA & 73, Oliver

>
>w3rv

1738. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 22:59:53 UTC
From: richardharrison@webtv.net
Message-ID: <15358-42BB3EE9-6@storefull-3253.bay.webtv.net>
Source record: 74404

Reg, G4FGQ wrote:
"How is it done?"

We have to do it within the USA broadcast frequencies with the following method.

The site of the transmitting antenna is plotted on a very accurate map.

Pick map sites along radiaal lines from the antenna which are accessible and free from possible reradiation sources (hard to do within a city) but many sites along a radial will work.

For a single-tower, the nearest measurement site should be at least 5x the tower height away. For a directional array, the nearest measurement site should be at least 10x the widest gap between towers in the array. You need to be far enough away so the antenna system appears to be a point source.

You need to make a log of the measurements you make, showing the site distance from the transmitter, measured field strength, time and conditions which influence the measurement. You need to be able to duplicate the measurements. You would prefer to make the first set of measurements with the antenna operating in a nondirectional mode even if it normally does not operate nondirectionally, so you can determine efficiency very simply.

The more sites and measurements, the better. 25 measurements along each radial is often considered enough for a nondirectional antenna. 40 or 50 would be required 9in a directional array, as the number of radial measurements needed depends on the complexity of antenna system and its pattern.

After completing measurements along a single radial, they should be analyzed to determine the effective field at one mile from the antenna, and the effective ground conductivity.

Fortunately, the FCC publishes charts are made a part of the rules in Part 73 of the FCC Rules. You have likely seen reproductions in many textbooks. I have an old copy of all the groundwave field intensity versus conductivity charts which divide the AM broadcast band into frequency segments.

These FCC charts contain more information than we can use, but they also have what we need.

At the top of the chart is a straight line that shows how the signal would be attenuated over perfectly conducting earth. The field strength

value at one mile is 100 mV / m. At 2 miles, it`s 50 millivolts / m, and so on. This is as expected as over perfedt earth the signal varies inversely with distance from the transmitter.

Beliw the straight line on the chart is a family of curves, each dedicated to a particular soil conductivity. There is a curve for sea water, 5.000 millisiemens (millimhos) and there is a curve for about as nonconductive soil as is found (0.5 millisiemens), and there are several curves in between those extremes.

All of the FCC curves are based on 100 mV / m at 1 mile, but can be scaled. If your transmitter delivers 500 mV / m at 1 mile, aimply multiply all points on the curve by 5.

We want to find the conductivity of our earth. It can be different on every radial parh from the antenna.We find conductivity by plottibg our measured field intensities on translucent graph paper with grid lines which match the fcc graph. Then we line them up and place them over a light source. We can see which of the FCC curves our points most closely follow. It`s labeled ewith its conductivity.

Best regards, Richard Harrison, KB5WZI

1739. Re: NEEDED: stainless steel push on reiianer rings for 3/16" rod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-23 23:36:51 UTC
From: nx7u@arrl.net
Message-ID: <42bb4767.960406@news.west.cox.net>
Source record: 74405

Try M2 (http://www.m2inc.com) or Byers chassis kits (Google on the
name; the catalog is .gif images, the retainers are on the last page).
DXEngineering may also carry them.

On Thu, 23 Jun 2005 00:48:29 -0400, "Photoman"
<photoman28(nospam)@hotmail.com> wrote:

>I'm building a few yagis for 432 and two meters and need a source for
>stainless steel push on retainer rings, sometimes called push nuts
>(incorrectly) to fit element diameter of 3/16" aluminum rod. I know they are
>made but cannot find a source searching with Google. Any help here would be
>appreciated. I have the spring steel variety but they rust after 2 or 3
>years so the antennas have to be taken down and the retainers replaced.
>
>Thanks and 73,
>Ken, KC4IH
>Remove the (nospam) to reply or reply to the group.
>
>--
>
>
>Have your doctor check your blood sugar at least once a year.
>
>

1740. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 00:17:27 UTC
From: ml <m@di.net>
Message-ID: <m-DF9F12.20172323062005@news.verizon.net>
Source record: 74406

In article <18548-42B486DF-562@storefull-3256.bay.webtv.net>,
richardharrison@webtv.net (Richard Harrison) wrote:

>
> A wire one meter long placed for maximum excitation when swept by the
> passing wave will have a voltage induced across it equal to the wave`s
> signal strength in volts per meter.
>
> There are no volts or amps in the wave, only the ability to generate
> volts and amps in conductors.

so if in my transmision thier is of course volts, and waves

if the waves have the ability to generate it, how can their be no volts
or amps in the wave? what force has it how did it get seperated from
the 'volts'

is it making volts from the pure wave energy which in turn moves the
electrons?

so therefore that means when i measure volts in my coax, it's because
the waves produced it my moveing the copper's electrons?

1741. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 00:20:29 UTC
From: ml <m@di.net>
Message-ID: <m-0DA5A2.20203023062005@news.verizon.net>
Source record: 74407

In article <1119188334.322677.10230@g49g2000cwa.googlegroups.com>,
"Cecil Moore" <w5dxp@hotmail.com> wrote:

> uctance and capacitance in the
> transmission line and that there is really no forward EM wave energy or
> momentum traveling at the speed of light and no reflected EM wave
> energy or momentum traveling at the speed of light.

what would be the 'momentum' your referring to? is their a
knetic/stored piece i am misssing? or are you just referring to like
the flywheel effect for ex a large coil might have

1742. Roof Mount Butternut HF-9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 00:38:42 UTC
From: Matthew Emme <maemme@charter.net>
Message-ID: <BEE0C042.2AF6%maemme@charter.net>
Source record: 74408

Just thought I would plumb the vast experience of you all before I lug this bad boy on either my 20 ft garage or on the 35 foot roof of my house.

I am torn between setting this up as a ground mount with the usual ground radial system or to set it up as a roof mount with the Butternut stub-tuned radial kit. If the radial kit gives good performance it might be worth it to try to deal with the roof mount as I do get the antenna up over the trees with this configuration.

Anyone had any luck with this set up?

Thanks,

ME
KB0DER

1743. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 02:01:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bb6a88$1_1@spool9-west.superfeed.net>
Source record: 74409

ml wrote:
> richardharrison@webtv.net (Richard Harrison) wrote:
>>There are no volts or amps in the wave, only the ability to generate
>>volts and amps in conductors.

> if the waves have the ability to generate it, how can their be no volts
> or amps in the wave? what force has it how did it get seperated from
> the 'volts'

I think maybe what Richard is trying to say is that the wave
actually consists of an E-field and an H-field. The E-field
results in volts and the H-field results in amps. The charged
particles responsible for the voltage and current cannot move
at the speed of light.

Probably a more modern way of saying the same thing is that
RF waves are photonic energy, moving at the speed of light.
The photons are the fields and the fields are the photons.
Electrons cannot move at the speed of light. Photons generated
by excited electrons are what move at the speed of light.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1744. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 02:17:41 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bb6e3c$1_2@spool9-west.superfeed.net>
Source record: 74410

ml wrote:
> what would be the 'momentum' your referring to? is their a
> knetic/stored piece i am misssing? or are you just referring to like
> the flywheel effect for ex a large coil might have

In 1619, Kepler proposed that it was the pressure (momentum)
of sunlight that blows back a comet's tail. Maxwell, in 1873
said: "In a medium in which waves are propagated, there is a
pressure (momentum) in the direction normal to the waves ..."

From "Optics", by Hecht: "One of the most significant properties
of the electromagnetic wave is that it transports energy and
momentum." ... "Indeed, whenever we have a flow of energy, it's
reasonable to expect that there will be an associated momentum -
the two are the related time and space aspects of motion."

And, of course, energy and momentum are two things that must
necessarily be conserved. The bottom line is that if there
are any reflected waves that don't reach the source (and also
are not dissipated), they must necessarily have had their direction
of energy and momentum reversed back toward the load. Anything
else would violate the laws of physics.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1745. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 02:29:25 UTC
From: CAM <w5dxp@arrl.net>
Message-ID: <1119580165.655452.193100@g14g2000cwa.googlegroups.com>
Source record: 74411

Tom Donaly wrote:
> I was hoping I could get some
> kind of nut philosophical justification for negative average power
> out of Cecil, but you sprang the trap.

The sign of power can indicate direction as in:

Pnet = Pfor - Pref

or destructive interference as in:

Pnet = P1 + P2 - 2*SQRT(P1*P2)
--
73, Cecil http://www.qsl.net/w5dxp

1746. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 02:59:14 UTC
From: CAM <w5dxp@arrl.net>
Message-ID: <1119581954.686652.74470@o13g2000cwo.googlegroups.com>
Source record: 74412

Ian White GM3SEK wrote:
> The moral is "draw no conclusion that could be incorrect".

Don't know about you, Ian, but I learn more when my conclusion is incorrect. I enjoy both, but I actually enjoy being proven wrong more than I enjoy being proven right. Unfortunately, sacred cows are presented on this newsgroup much more than technical information. Lord forgive my Texan nature, I dearly love to barbeque sacred cows.
--
73, Cecil http://www.qsl.net/w5dxp

1747. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 03:21:45 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <d%Kue.3268$Bx6.2823@newssvr13.news.prodigy.com>
Source record: 74413

CAM wrote:
> Tom Donaly wrote:
>
>>I was hoping I could get some
>>kind of nut philosophical justification for negative average power
>>out of Cecil, but you sprang the trap.
>
>
> The sign of power can indicate direction as in:
>
> Pnet = Pfor - Pref
>
> or destructive interference as in:
>
> Pnet = P1 + P2 - 2*SQRT(P1*P2)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

I should have known I could depend on you, Cecil.
73
Tom Donaly, KA6RUH

1748. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 04:40:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bb8fc2$1_1@spool9-west.superfeed.net>
Source record: 74414

Tom Donaly wrote:
> I should have known I could depend on you, Cecil.

Negative power is a fallout of the math model being used.
For instance, V*I*cos(theta) is negative when theta=180 degrees.
theta=180 degrees for reflected power.

If you have a windmill generator connected to your house
power wiring, you can cause your watthour meter to run
backwards. By convention, that would be negative energy
consumption.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1749. Re: Roof Mount Butternut HF-9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 05:14:06 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <cbKdnTCHB_jGCybfRVn-hg@comcast.com>
Source record: 74415

"Matthew Emme" <maemme@charter.net> wrote in message
news:BEE0C042.2AF6%maemme@charter.net...
> Just thought I would plumb the vast experience of you all before I lug
this
> bad boy on either my 20 ft garage or on the 35 foot roof of my house.
>
> I am torn between setting this up as a ground mount with the usual ground
> radial system or to set it up as a roof mount with the Butternut
stub-tuned
> radial kit. If the radial kit gives good performance it might be worth it
> to try to deal with the roof mount as I do get the antenna up over the
trees
> with this configuration.
>
> Anyone had any luck with this set up?
>
>
> Thanks,
>
>
> ME
> KB0DER
>
No experience with it but Bencher now offers a counterpoise for the
Butternut which may help. I ground mounted my Butternut about a dozen feet
from my operating position and that resulted in some difficulty with RF in
the shack messing with my computer. So whatever location gets the antenna
farthest away from the operating position is the one I would recommend.

Chuck W6PKP

1750. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 06:12:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4c8nb19026dq2vkt2hq40jftqh6jvhcgl7@4ax.com>
Source record: 74416

On Thu, 23 Jun 2005 15:08:09 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>The whole exercise is nonsensical

Hi Tom,

You are FOURTH in a growing list of correspondents in the past couple
of weeks who've intentionally posted bum science to prove a point.

Unfortunatle none of those correspondents have made any pointed
impression on the bums they wanted to prove science to.

73's
Richard Clark, KB7QHC

1751. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 06:20:32 UTC
From: Owen <none@no.where>
Message-ID: <QCNue.2190$oJ.1514@news-server.bigpond.net.au>
Source record: 74417

Tom Donaly wrote:
> Owen wrote:
>
>> Tom Donaly wrote:
>>
>>> Given a 396 meter length of Radio Shack RG58. At 250 kiloherz TLD says
>>> (after some manipulation) that it has a propagation constant of
>>> 689.6 X 10^-9 + j7.933 X 10^-3. Zo is 50 -j4.344. Feed it with a
>>
>>
>>
>> Doesn't that imply that the the matched line loss at 0.25MHz is
>> 689.6E-9*20*e^1*100 dB/100m?
>>
>> That is 0.0006dB/100m, it seems too good to be true!
>>
>> Owen
>
> Hi Owen,
> It is too good to be true. (Just consider it came from an unusually
> good batch.) The whole exercise is nonsensical, though,
> because it results in negative power and a negative SWR. Increase the
> loss to a more realistic value and the negative power goes away as
> does the negative SWR while the absolute value of the reflection
> coefficient is still greater than 1. I was hoping I could get some
> kind of nut philosophical justification for negative average power
> out of Cecil, but you sprang the trap.
> 73,
> Tom Donaly, KA6RUH

Well, you are right I was fooled by your statement "Given a 396 meter length of Radio Shack RG58" which seemed to say a real cable.

I suspect the source of "negative power" values stems from the assumption that Power=Real(Vf*If*-Vf*Ir*), whereas it is my understanding that the power flow at a point on the line is Real(V*I*) or Real((Vf+Vr)*(If-Ir)* which expands to Real(Vf*If* - Vf*Ir* + Vr*If* - VrIr*) so that when Power=Real(Vf*If*-Vf*Ir*) is assumed, two of the terms (- Vf*Ir* + Vr*If*) are being ignored.

The real part of (-Vf*Ir* + Vr*If*) is zero when Zo is real, so they can be ignored for calculating real power when Zo is real.

In the case of your example, but using real RG58C/U (and Zo is not real), it looks to me like Real(Vf*If*-Vf*Ir*) is negative out to about

60m from the load, but Real(V*I*) is always positive and always grows toward the generator.

A graphic showing the behaviour of the terms is at http://www.vk1od.net/RG58sol.gif .

Owen

PS: My notation: the * postfix unary operator means complex conjugate, ie (If-Ir)* means compex congugate of (If-Ir).

If you are having trouble viewing the gif file because it has been zoomed to fit in the browser window, most modern browsers allow you to zoom it up to 100% size.

In Windows Exploder, hold your cursor over the image until a little "Expand" control appears, click the "Expand" control and there you go.

In Firefox, just click on the image.

1752. Re: INNOCENT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 07:33:37 UTC
From: kashe@sonic.net
Message-ID: <dodnb1tqumcdbdk64tehmu4uvsd14vdr2f@4ax.com>
Source record: 74418

On Wed, 22 Jun 2005 06:54:49 -0400, Ham op <hamop@comcast.net> wrote:

>SEE BELOW
>en Bessler"
>> <kg0wx@NOSPAMyahoo.com> wrote:
>>
>>
>>><kashe@sonic.net> wrote in message
>>>news:vgc4b1t03ti52jvvgp4er4sb02d9101vur@4ax.com...
>>>
>>>>On Tue, 14 Jun 2005 15:47:05 -0500, richardharrison@webtv.net (Richard
>>>>Harrison) wrote:
>>>>Thank you -- I had no idea that three-state logic was a
>>>>Scottish invention. :-)
>>>
>>>It's 4 state logic - you forgot PAR.
>>
>>
>> Which means ....
>>
>
>GIVE UP RADIO! TAKE UP GOLF.

When did you hear I was deaf? And from whom? Not to mention I
woudn't be caught dead playing golf?

1753. Re: NEEDED: stainless steel push on reiianer rings for 3/16" rod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 07:37:56 UTC
From: kashe@sonic.net
Message-ID: <urdnb1h7jih45lr70cve1k4k1nvddjpk65@4ax.com>
Source record: 74419

On Thu, 23 Jun 2005 18:56:25 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>>I'm building a few yagis for 432 and two meters and need a source for
>>stainless steel push on retainer rings, sometimes called push nuts
>>(incorrectly) to fit element diameter of 3/16" aluminum rod. I know they are
>>made but cannot find a source searching with Google. Any help here would be
>>appreciated. I have the spring steel variety but they rust after 2 or 3
>>years so the antennas have to be taken down and the retainers replaced.
>
>Don't know of a source for stainless steel in that size, unfortunately.
>
>www.smallparts.com has retaining rings in stainless, but not for
>anything smaller than 1/4" diameter. Their RE series is zinc-plated
>spring steel, with the exception of the RE-02 and RE-03 (the latter is
>for 3/16" shafts) which are beryllium copper. Perhaps this latter
>would do, if you coated the aluminum rod with a copper-to-aluminum
>compatibility compound to reduce electrolytic interaction?

Would it be at all useful to look for some stainless springs
of the correct ID so that they could be "screwed" onto the elements,
kind of like those internal thread repair kits have, only exernal? I'm
not sure how or where youi'd use them, but they could be combined with
washers if they're too flat when in place.

1754. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 10:32:38 UTC
From: Owen <none@no.where>
Message-ID: <ajRue.2466$oJ.1560@news-server.bigpond.net.au>
Source record: 74420

Owen wrote:

> I suspect the source of "negative power" values stems from the
> assumption that Power=Real(Vf*If*-Vf*Ir*), whereas it is my
> understanding that the power flow at a point on the line is Real(V*I*)
> or Real((Vf+Vr)*(If-Ir)* which expands to Real(Vf*If* - Vf*Ir* + Vr*If*
> - VrIr*) so that when Power=Real(Vf*If*-Vf*Ir*) is assumed, two of the
> terms (- Vf*Ir* + Vr*If*) are being ignored.
>
> The real part of (-Vf*Ir* + Vr*If*) is zero when Zo is real, so they can
> be ignored for calculating real power when Zo is real.
>
> In the case of your example, but using real RG58C/U (and Zo is not
> real), it looks to me like Real(Vf*If*-Vf*Ir*) is negative out to about
> 60m from the load, but Real(V*I*) is always positive and always grows
> toward the generator.
>
> A graphic showing the behaviour of the terms is at
> http://www.vk1od.net/RG58sol.gif .
>

I meant to also mention the response of a typical reflectometer.

The type of reflectometer that samples the voltage at a point, and the current at the same point to create a voltage proportional to that current, (such that the magnitude and phase of the voltage due to the current sample is equal to and opposite to the voltage sample when the line is terminated in its characteristic impedance,) then adds the two voltages algebraicly and measures the magnitude of the resultant responds to Vr, or if it is turned around, to Vf. Such an instrument does not respond to the two cross product terms terms discussed in the quote.

So even if you adjusted such a reflectometer so that it nulled on the true Zo of the cable by adjusting the phase and amplitude of the voltage same wrt current sample, it would respond to Vf and Vr and could not be scaled to read forward and reverse power (since it doesn't respond to the cross product terms).

So, in Tom's case (though with real RG58), a reflectometer of that type, properly nulled and scaled in Watts would indicate more reflected power than forward close to the load. The instrument is correctly responding to the magnitude of the reflection coefficient, but scaling in Watts can only be valid for Zo real.

Owen

>
> PS: My notation: the * postfix unary operator means complex conjugate,
> ie (If-Ir)* means compex congugate of (If-Ir).
>
> If you are having trouble viewing the gif file because it has been
> zoomed to fit in the browser window, most modern browsers allow you to
> zoom it up to 100% size.
>
> In Windows Exploder, hold your cursor over the image until a little
> "Expand" control appears, click the "Expand" control and there you go.
>
> In Firefox, just click on the image.

1755. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 13:00:55 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1119618054.991193.201730@z14g2000cwz.googlegroups.com>
Source record: 74421

Wes Stewart wrote:
> On 23 Jun 2005 12:29:51 -0700, "Brian Kelly" <kelly@dvol.com> wrote:
>
> >
> >Oliver Gebele wrote:
> >> Hi,
> >>
> >> i am using a Collins-Filter with 2 variable
> >> capacitors and a switched inductor (Pi).
> >> Obviously there are infinitely many possibilities
> >> to match an antenna.Are there any preferred
> >> possibilities? And how would i adjust my box
> >> to do this? (Maybe there are already links on
> >> the internet that i did not find.)
> >
> >Inductors are lossy. Capacitors are not. Use the tuner settings which
> >provide a 2:1 VSWR match or better with the least possible amount of
> >inductance. In other words use the least amount of inductance you can
> >get away with.
>
> Let's examine this statement.
>
> First all should note that this is a pi-network. Suggestions to use
> an MFJ (tee-network) tuning procedure are wrong.
>
> Here is a random example made up on the spur of the moment.
>
> Assume the load is 20 +j50 @ 14 MHz. SWR = 5.2
>
> Also assume that the tuning capacitor(s) Q = 500 and the inductor Q =
> 200, both typical values.
>
> A nearly optimum solution, from a match and loss standpoint is:
>
> Cin = 140.3 pF, L = .958 uH, Cout = 333.6 pF.
>
> The input z = 49.69 +j0.03 or SWR = 1.006 , Loss = 0.09 dB.
>
> Now, let's force the inductance to a lower value.
>
> Cin = 422 pF, L = 0.67 uH, Cout = 471.3 pF.
>
> The input Z = 49.6 -j0.04 or SWR = 1.008 but the loss = 0.18 dB.
>

> The loss doubled when the inductance was lowered.
>
> All of this is easily calculated using a free tool: XLZIZL.xls.

(1) Physics must have changed, I guess I missed the revisions.

(2) Doesn't matter because old wives tales trump physics every time.

(3) The bloomin' file won't run in my version of Excel. I missed those revisions too.

<sigh>

w3rv

1756. Re: Roof Mount Butternut HF-9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 13:26:04 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <PJWdnbzev5l5lCHfRVn-tg@comcast.com>
Source record: 74422

"Matthew Emme" <maemme@charter.net> wrote in message
news:BEE0C042.2AF6%maemme@charter.net...
> Just thought I would plumb the vast experience of you all before I lug
> this
> bad boy on either my 20 ft garage or on the 35 foot roof of my house.
>
> I am torn between setting this up as a ground mount with the usual ground
> radial system or to set it up as a roof mount with the Butternut
> stub-tuned
> radial kit. If the radial kit gives good performance it might be worth it
> to try to deal with the roof mount as I do get the antenna up over the
> trees
> with this configuration.
>
> Anyone had any luck with this set up?
>
>
> Thanks,
>
>
> ME
> KB0DER
>
I once talked to a German station on 20 m with a gangbusters signal. Guy had
a vertical on the roof of an apartment building. What does Butternut say
about adding real radials?

Tam/WB2TT

1757. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 13:40:01 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <R2Uue.7999$xm1.715@fe06.lga>
Source record: 74423

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:15358-42BB3EE9-6@storefull-3253.bay.webtv.net...
> Reg, G4FGQ wrote:
> "How is it done?"
>
> We have to do it within the USA broadcast frequencies with the following
> method.
>
> The site of the transmitting antenna is plotted on a very accurate map.
>
> Pick map sites along radiaal lines from the antenna which are accessible
> and free from possible reradiation sources (hard to do within a city)
> but many sites along a radial will work.
>
> For a single-tower, the nearest measurement site should be at least 5x
> the tower height away. For a directional array, the nearest measurement
> site should be at least 10x the widest gap between towers in the array.
> You need to be far enough away so the antenna system appears to be a
> point source.
>
> You need to make a log of the measurements you make, showing the site
> distance from the transmitter, measured field strength, time and
> conditions which influence the measurement. You need to be able to
> duplicate the measurements. You would prefer to make the first set of
> measurements with the antenna operating in a nondirectional mode even if
> it normally does not operate nondirectionally, so you can determine
> efficiency very simply.
>
> The more sites and measurements, the better. 25 measurements along each
> radial is often considered enough for a nondirectional antenna. 40 or 50
> would be required 9in a directional array, as the number of radial
> measurements needed depends on the complexity of antenna system and its
> pattern.
>
> After completing measurements along a single radial, they should be
> analyzed to determine the effective field at one mile from the antenna,
> and the effective ground conductivity.
>
> Fortunately, the FCC publishes charts are made a part of the rules in
> Part 73 of the FCC Rules. You have likely seen reproductions in many
> textbooks. I have an old copy of all the groundwave field intensity
> versus conductivity charts which divide the AM broadcast band into
> frequency segments.
>

> These FCC charts contain more information than we can use, but they also
> have what we need.
>
> At the top of the chart is a straight line that shows how the signal
> would be attenuated over perfectly conducting earth. The field strength
> value at one mile is 100 mV / m. At 2 miles, it`s 50 millivolts / m, and
> so on. This is as expected as over perfedt earth the signal varies
> inversely with distance from the transmitter.
>
> Beliw the straight line on the chart is a family of curves, each
> dedicated to a particular soil conductivity. There is a curve for sea
> water, 5.000 millisiemens (millimhos) and there is a curve for about as
> nonconductive soil as is found (0.5 millisiemens), and there are several
> curves in between those extremes.
>
> All of the FCC curves are based on 100 mV / m at 1 mile, but can be
> scaled. If your transmitter delivers 500 mV / m at 1 mile, aimply
> multiply all points on the curve by 5.
>
> We want to find the conductivity of our earth. It can be different on
> every radial parh from the antenna.We find conductivity by plottibg our
> measured field intensities on translucent graph paper with grid lines
> which match the fcc graph. Then we line them up and place them over a
> light source. We can see which of the FCC curves our points most closely
> follow. It`s labeled ewith its conductivity.
>
> Best regards, Richard Harrison, KB5WZI

Hi Richard, you deserve an A+ for your excellent presentation on the use of the FCC charts of signal level vs distance and conductivity. You've described the method exactly as I have used it for single tower BC antennas. I still have a complete set of the charts from 550 KHz to 1600 KHz that I used during the late 1940s, when I was doing AM BC antenna work.

Walt, W2DU

1758. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 13:54:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <HgUue.1644$N22.97@newssvr21.news.prodigy.com>
Source record: 74424

Richard Clark wrote:
> On Thu, 23 Jun 2005 15:08:09 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>The whole exercise is nonsensical
>
>
> Hi Tom,
>
> You are FOURTH in a growing list of correspondents in the past couple
> of weeks who've intentionally posted bum science to prove a point.
>
> Unfortunatle none of those correspondents have made any pointed
> impression on the bums they wanted to prove science to.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
mea culpa, only what I posted was more parody than
science. At least it was meant to be. Nothing, short of
a visitation by The Creator will make some of the correspondents
to this newsgroup change their thinking about how transmission
lines behave. However, for those who aren't sure of whether
they're right or not, the contemplation of absurdity may
sharpen the understanding. (Or it may not. I'll try not to
post things like this in the future, but can't guarantee
forebearance.)
73,
Tom Donaly, KA6RUH

1759. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 14:07:27 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ih2ob1d9gg5bb0ip97t2go6qhadg48kmje@4ax.com>
Source record: 74325

On 24 Jun 2005 06:00:55 -0700, "Brian Kelly" <kelly@dvol.com> wrote in
reply to my comments:

[snip]
>
>(1) Physics must have changed, I guess I missed the revisions.

I don't recall any changes. The pi (and tee and other) network(s),
having three reactances, allow(s) the operating Q to be set by the
choice of component values. Efficiency is a function of the ratio of
operating (loaded) Q and the unload Q of the components.

For a single reactor it is: eff = Qu / (Qu + Ql)

Clearly, for highest efficiency (lowest loss) you want high unloaded
Q(s) and a minimum loaded Q. By reducing the inductance below an
optimum value, the unloaded network Q was increased, resulting in
lower efficiency.

>
>(2) Doesn't matter because old wives tales trump physics every time.

Not sure what this means.
>
>(3) The bloomin' file won't run in my version of Excel. I missed those
>revisions too.

I thought my software was behind the times.

1760. Re: Roof Mount Butternut HF-9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 14:28:06 UTC
From: "Dave \"Doc\" Corio" <dcorio@adelphia.net>
Message-ID: <SfydnRFu1N7shSHfRVn-sQ@adelphia.com>
Source record: 74326

Matthew Emme wrote:
> Just thought I would plumb the vast experience of you all before I lug this
> bad boy on either my 20 ft garage or on the 35 foot roof of my house.
>
> I am torn between setting this up as a ground mount with the usual ground
> radial system or to set it up as a roof mount with the Butternut stub-tuned
> radial kit. If the radial kit gives good performance it might be worth it
> to try to deal with the roof mount as I do get the antenna up over the trees
> with this configuration.
>
> Anyone had any luck with this set up?
>
>
> Thanks,
>
>
> ME
> KB0DER
>
My two cents worth:

Used an HF9V at 20 feet with no radials for quite a while. Great SWR,
and gave me good results on both transmit and receive.

Used a trapped vertical - 5-BTV I think it was - on top of a five story
apartment building with no radials at all, and it was dynamite!

Why not put it on the roof, tune it, try it out, then add the radials if
you find/feel you need them?

73
Dave
N0HNJ

1761. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 14:46:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bc1ddf$1_2@spool9-west.superfeed.net>
Source record: 74327

Wes Stewart wrote:
> "Brian Kelly" <kelly@dvol.com> wrote:
>>(1) Physics must have changed, I guess I missed the revisions.
>
> I don't recall any changes.

Planck's Constant rendered Maxwell's Equations
discontinuous. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1762. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 14:54:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9h6q9iss1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74328

"Ian White GM3SEK" wrote

> That was an administrative policy decision rather than a technical
one.
> From the technical viewpoint, everybody agrees that 120*0.25wl is
more
> than enough to override the local ground conditions under the tower
> irrelevant.
>
==========

- - - - and since soil resistivity decreases with increasing
frequency, and the impedance due to soil capacitance also decreases
with increasing frequency, everybody agrees that 1/8th wavelength or
less is more than long enough.

And if that isn't enough, the velocity of propagation along buried
wires is considerably slower than the free-space value. It depends on
moisture content and permittivity.

The attenuation due to skin effect and wire inductance along lossy
radial wires is rather high. There's negligible current flowing in
them at distances greater than 1/4-wavelength at their own velocity.
The wires may just as well not be there.

Finally, as the wires spread apart, at appreciable distance
practically all the remaining current flows in the soil because the
cross-sectional area of the soil is far greater than that of the wire.
The longitudinal impedance of the wire is greater than that of the
soil.

The foregoing applies to low and medium resistivity soils. In arid,
sandy, rocky, cactus-growing soils, with resistivities greater than
5,000 or 10,000 ohms-metres, buried wires have low attenuation, they
become resonant and develop standing waves. It is then a good idea to
consider changing from vertical antennas to horizontal dipoles.

The effects can be estimated by calculations on model radial systems.

It may have been noticed that ground loss is least at low and very
high resistivities. So there must be a maximum loss at some
resistivity. I wonder if maximum loss occurs around 377 ohm-metres
after taking the reflecting angle into account?

If B. L & E, made any errors, they made sure they erred on the safe
side regarding numbers.

Reg, G4FGQ

1763. Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 15:01:20 UTC
From: "Bob B." <barn@newsguy.com>
Message-ID: <if7ob19hbqrjujpo8moi6evcnou8f080n0@4ax.com>
Source record: 74330

Hello...

Will an antenna rotator like a Radio Shack or Channel Master work if hung upside-down from a roof beam, or should I try to come up with a way to secure it to the attic floor?

I know rotators are designed to handle a certain weight, but I can't guess at what they'd do with a "negative" weight...

The antenna I'm looking to rotate is a Channel Master 8-bay bowtie. (CM4228)

Thanks,
-Bob-
N1GYL

1764. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 15:14:46 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <pan.2005.06.24.15.14.45.516701@removethis.oz.net>
Source record: 74329

On Fri, 24 Jun 2005 09:46:39 -0500, Cecil Moore wrote:

> Wes Stewart wrote:
>> "Brian Kelly" <kelly@dvol.com> wrote:
>>>(1) Physics must have changed, I guess I missed the revisions.
>>
>> I don't recall any changes.
>
> Planck's Constant rendered Maxwell's Equations
> discontinuous. :-)

Heisenberg suspected so, but he was uncertain.

1765. Re: Roof Mount Butternut HF-9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 15:48:01 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119628081.947847.80580@g44g2000cwa.googlegroups.com>
Source record: 74331

I had a Roof Mounted HF6V for almost 15 years. I used 2 radials per band on the roof and it worked peach. It got ruined in transit and been looking to replace it. But I bought mine New for 106.00 and now look at the price. Used ones run more than what I paid new :). I find it hard to get one now HI HI.

1766. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 15:52:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bc2d46$1_2@spool9-west.superfeed.net>
Source record: 74332

Tom Donaly wrote:
> Nothing, short of
> a visitation by The Creator will make some of the correspondents
> to this newsgroup change their thinking about how transmission
> lines behave.

Hey Tom, what do you think about Ramo & Whinnery's assertion
in _Fields_and_Waves_... 2nd edition, page 291 " .. we are
often most interested in the ratio of power in the reflected
wave to that in the incident wave, and this ratio is given
by the square of the magnitude of [rho], as can be shown by
considering the Poynting vectors: Pz-/Pz+ = |rho|^2 (3)"

Note the plural "Poynting vectors", Pz- for reflected power
and Pz+ for forward power.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1767. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 16:15:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9hbiq$o0r$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74333

> Nothing, short of
> a visitation by The Creator will make some of the correspondents
> to this newsgroup change their thinking about how transmission
> lines behave.

==========

Not even The Creator will get ME to change MY thinking.

Not even if the so-called SWR meter is located in the right place.

Not even if it's a Bird with wings.

1768. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 17:13:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <17134$42bc3f25$438df14a$17033@ALLTEL.NET>
Source record: 74334

"Bob Nielsen" <nielsen@removethis.oz.net> wrote in message
news:pan.2005.06.24.15.14.45.516701@removethis.oz.net...
> On Fri, 24 Jun 2005 09:46:39 -0500, Cecil Moore wrote:
>
> > Wes Stewart wrote:
> >> "Brian Kelly" <kelly@dvol.com> wrote:
> >>>(1) Physics must have changed, I guess I missed the revisions.
> >>
> >> I don't recall any changes.
> >
> > Planck's Constant rendered Maxwell's Equations
> > discontinuous. :-)
>
> Heisenberg suspected so, but he was uncertain.

Schroder said he had to look to be sure.

1769. offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 18:09:29 UTC
From: larry <larya@rogers.com>
Message-ID: <_K6dncKmBLpD0SHfRVn-uQ@rogers.com>
Source record: 74335

Greetings

A gentleman on another group.. is telling me that he wants to put up an offset dipole antenna and feed it with a balum.. He is a new amateur and I can tell he does't have much antenna knowledge...

He is being advise to use an offset antenna wich in my mind isn't the best answer to his problem....

Does anyone know of a website that describes the offset antenna better than I can....

Larry ve3fxq

1770. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 18:43:45 UTC
From: dplatt@radagast.org
Message-ID: <11bol3169613116@corp.supernews.com>
Source record: 74336

>Greetings
>
>A gentleman on another group.. is telling me that he wants to put up an
>offset dipole antenna and feed it with a balum.. He is a new amateur and I
>can tell he does't have much antenna knowledge...
>
>He is being advise to use an offset antenna wich in my mind isn't the best
>answer to his problem....

That may depend to some extent on what his problem is >>grin<<

>Does anyone know of a website that describes the offset antenna better than
>I can....

http://www.cebik.com/gup/gup9.html seems a good place to start.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1771. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 18:49:10 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <IL6dnVQL1_W-yyHfRVn-qQ@comcast.com>
Source record: 74337

Bob Nielsen wrote:

SNIPPED

> Heisenberg suspected so, but he was uncertain.

Could Heisenberg be certain that Heisenberg was Heisenberg? Was he certain that the Uncertainty Principle was in itself certain?

Damn, Physics and Philosophy getting all mixed up!

VSWR is real! Deal with it.

VSWR isn't a REAL problem! Deal with it!

VSWR is real and ENGINEERS and Ham Radio operators make transmission lines and antennas work; while Physicists wonder if it's real or uncertain. [My 80 meter antenna has a VSWR of >30:1. It works just fine!]

1772. Re: Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 18:56:10 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndbolqa.2l5l.bit-bucket@shell.config.com>
Source record: 74338

On Fri, 24 Jun 2005 11:01:20 -0400, Bob B wrote:
>
> Will an antenna rotator like a Radio Shack or Channel Master work if
> hung upside-down from a roof beam, or should I try to come up with a
> way to secure it to the attic floor?
>
> I know rotators are designed to handle a certain weight, but I can't
> guess at what they'd do with a "negative" weight...

You've got a point about "negative" weight". Many rotators support
their load on the upper assy which, in turn, runs on a ball-bearing
loaded raceway. Probably a poor pratice to operate them upside down.

What you could look for is a rotator that permits the mast to run
clear through the whole works. These are often used in conjunction
with a separate load bearing supporting the weight of the mast below
the rotator. With a rotator such as this, you can mount the rotator
high in the rafters and run the mast _down_ from the _upright_ rotator.

It's a thought...

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Pueblo, Colorado | @ | Jonesy | OS/2 __
| | config.com | DM78rf SK

1773. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 19:41:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9hnl2$6lq$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74339

"Oliver Gebele" wrote
> i am using a Collins-Filter with 2 variable
> capacitors and a switched inductor (Pi).
> Obviously there are infinitely many possibilities
> to match an antenna.Are there any preferred
> possibilities? And how would i adjust my box
> to do this? (Maybe there are already links on
> the internet that i did not find.)
>

====================================

Matching networks, with 2 C's and 1 Coil, can be either Pi networks or T networks. The Pi network, with the coil in series, also behaves as a low-pass filter and for this reason it is to be preferred. But the T network has more convenient and therefore less expensive values of L and C. So for economic reasons manufacturers sell more T than Pi networks. Pi-networks have considerably larger coils and capacitors, but in general they are equally efficient when working between the same transmitter and antenna impedances.

As has already been pointed out, with a T network, 2 series C's and a shunt coil, least loss nearly always occurs when the coil, in conjunction with the C's has it's lowest inductance. But component settings are quite uncritical.

Problems occur only when one or other or both of the capacitors are very near to their minimum settings, ie., little more than stray capacitance remains in cicuit. The capacitors may then arc over (which is immediately apparent). Or the coil turns may become overheated when attempting to run 1 Kwatt or more (which may take a minute or so when operating CW or FM).

I mention overload circumstances only because the effects and worries are too often exaggerated in these newsgroups. So don't lose any sleep! Even if half the power is lost in your tuner your signal strength falls by only 1/2 of an S-unit.

To become familiar with series T-Match Networks download program T_TUNER from website below. Any impedance R+jX can be matched to any other R+jX. But usually the Tx or generator impedance is a purely resistve 50 ohms which simplifies understanding of what's going on.

Other practical programs, from the very few I've seen, only manage to match two purely resistive impedances. Which with radio antennas seldom exist.

Download program T_TUNER in a few seconds and run immediately. Go from "Index" to "Download Progs from Here" page and run immediately.

There are several other programs of various sorts which include operation and component values of T and L-match transmitting circuits. If you are accustomed to calculating how many rolls of wallpaper are needed to re-decorate your shack then you will feel at home.

.....

Regards from Reg, G4FGQ

For Free Radio Design Software go to

http://www.btinternet.com/~g4fgq.regp

.....

1774. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 20:35:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9hqpn$q59$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74340

> VSWR isn't a REAL problem! Deal with it!
>
> VSWR is real and ENGINEERS and Ham Radio operators make transmission
> lines and antennas work; while Physicists wonder if it's real or
> uncertain. [My 80 meter antenna has a VSWR of >30:1. It works just
fine!]
>
==========

Anything will work after a fashion. It's no proof of anything.

It is not realised by many amateurs and engineers that the so-called SWR meter does not measure SWR. It merely indicates whether or not the transmitter is loaded with its design resistance. Which, of course, is useful.

The meter not located in the right place to measure SWR on the feedline. The feedline on which it is imagined SWR is measured does not exist.

To measure SWR on any line a moving voltmeter is required. SWR is simply max volts divided by min volts which occur at a distance apart of 1/4-wavelength if the line is long enough, and requires no knowledge of line impedance or its terminating impedances, or of anything else about the line.

In other words, SWR is just something for Old Wives and "clever" people to plagiarise and waffle about, on newsgroups and in the magazines, and so continue to mislead themselves together with the unfortunate learners, CB-ers, and the novices.

Reg, G4FGQ

1775. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 20:43:34 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Wf_ue.33187$J12.12743@newssvr14.news.prodigy.com>
Source record: 74341

Owen wrote:
> Tom Donaly wrote:
>
>> Owen wrote:
>>
>>> Tom Donaly wrote:
>>>
>>>> Given a 396 meter length of Radio Shack RG58. At 250 kiloherz TLD says
>>>> (after some manipulation) that it has a propagation constant of
>>>> 689.6 X 10^-9 + j7.933 X 10^-3. Zo is 50 -j4.344. Feed it with a
>>>
>>>
>>>
>>>
>>> Doesn't that imply that the the matched line loss at 0.25MHz is
>>> 689.6E-9*20*e^1*100 dB/100m?
>>>
>>> That is 0.0006dB/100m, it seems too good to be true!
>>>
>>> Owen
>>
>>
>> Hi Owen,
>> It is too good to be true. (Just consider it came from an unusually
>> good batch.) The whole exercise is nonsensical, though,
>> because it results in negative power and a negative SWR. Increase the
>> loss to a more realistic value and the negative power goes away as
>> does the negative SWR while the absolute value of the reflection
>> coefficient is still greater than 1. I was hoping I could get some
>> kind of nut philosophical justification for negative average power
>> out of Cecil, but you sprang the trap.
>> 73,
>> Tom Donaly, KA6RUH
>
>
> Well, you are right I was fooled by your statement "Given a 396 meter
> length of Radio Shack RG58" which seemed to say a real cable.
>
> I suspect the source of "negative power" values stems from the
> assumption that Power=Real(Vf*If*-Vf*Ir*), whereas it is my
> understanding that the power flow at a point on the line is Real(V*I*)
> or Real((Vf+Vr)*(If-Ir)* which expands to Real(Vf*If* - Vf*Ir* + Vr*If*
> - VrIr*) so that when Power=Real(Vf*If*-Vf*Ir*) is assumed, two of the
> terms (- Vf*Ir* + Vr*If*) are being ignored.

>
> The real part of (-Vf*Ir* + Vr*If*) is zero when Zo is real, so they can
> be ignored for calculating real power when Zo is real.
>
> In the case of your example, but using real RG58C/U (and Zo is not
> real), it looks to me like Real(Vf*If*-Vf*Ir*) is negative out to about
> 60m from the load, but Real(V*I*) is always positive and always grows
> toward the generator.
>
> A graphic showing the behaviour of the terms is at
> http://www.vk1od.net/RG58sol.gif .
>
> Owen
>
> PS: My notation: the * postfix unary operator means complex conjugate,
> ie (If-Ir)* means compex congugate of (If-Ir).
>
> If you are having trouble viewing the gif file because it has been
> zoomed to fit in the browser window, most modern browsers allow you to
> zoom it up to 100% size.
>
> In Windows Exploder, hold your cursor over the image until a little
> "Expand" control appears, click the "Expand" control and there you go.
>
> In Firefox, just click on the image.

I used the complicated expressions for V and I found
in _Field and Wave Electromagnetics_ by David K. Cheng on page 468,
and then found the power by taking the real part of VI*. If you're
interested in doing it the hard way, you can first find V and I,
then take (V + ZoI)/2Sqrt(ReZo) and call that a. Then take
(V - Zo*I)/2Sqrt(ReZo) and call that b. The power is then just
|a|^2 - |b|^2. This last comes from _Microwave Engineering Using
Microstrips_ by E.F. Fooks and R.A Zakarevicius.
Before doing any of this, though, be sure the propagation constant
is the right one for the Zo of the line. The books give
the propagation constant for a transmission line as sqrt((R + jwL)(G +
jwC)), and Zo as sqrt((R + jwL)/(G + jwL)) so it's reasonable to assume
the two are related. In other words, it doesn't seem as if you can just
pick numbers out of a hat for the two quantities and expect them to mean
anything.
73,
Tom Donaly, KA6RUH

1776. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 20:51:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9hrpa$p3b$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74342

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9hqpn$q59$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> > VSWR isn't a REAL problem! Deal with it!
> >
> > VSWR is real and ENGINEERS and Ham Radio operators make
transmission
> > lines and antennas work; while Physicists wonder if it's real or
> > uncertain. [My 80 meter antenna has a VSWR of >30:1. It works just
> fine!]
> >
> ====================================
>
> Anything will work after a fashion. It's no proof of anything.
>
> It is not realised by many amateurs and engineers that the so-called
> SWR meter does not measure SWR. It merely indicates whether or not
> the transmitter is loaded with its design resistance. Which, of
> course, is useful.
>
> The meter not located in the right place to measure SWR on the
> feedline. The feedline on which it is imagined SWR is measured does
> not exist.
>
> To measure SWR on any line a moving voltmeter is required. SWR is
> simply max volts divided by min volts which occur at a distance
apart
> of 1/4-wavelength if the line is long enough, and requires no
> knowledge of line impedance or its terminating impedances, or of
> anything else about the line.
>
> In other words, SWR is just something for Old Wives and "clever"
> people to plagiarise and waffle about, on newsgroups and in the
> magazines, and so continue to mislead themselves together with the
> unfortunate learners, CB-ers, and the novices.
> ----
> Reg, G4FGQ
>
================================

In other words, ENGINEERS make transmission lines and antennas work by
copying what was done last time.

Nothing has changed since Oliver Heaviside, 1875 - 1925.

If anybody mentions G5RV I shall cry.

Reg, G4FGQ

1777. Re: "Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 20:59:11 UTC
From: richardharrison@webtv.net
Message-ID: <6442-42BC741F-32@storefull-3258.bay.webtv.net>
Source record: 74343

m wrote:
"If the waves have the ability to generate it, how can there be no volts or amps in the wave?'

Good question. We know light, an EM phenomenon, travels to us over zillions of miles and years through a medium of sparce and scattered conduction when there is any. The answer is fields which need no conduction, yet still exert action at a distance.

James Clerk-Maxwell speculated that the kind of current you have in a capacitor, displacement current, which does not require electron migration, was responsible for propagation in free space, no "aether" necessary. Maxwell was right.

Two of Maxwell`s equations are called his field equations. The first equation says that a changing magnetic field produces an electric field. The second says that a changing electric field produces a magnetic field.

That is the secret of electromagnetic radiation.

For more details see "Radio-Electronic Transmission Fundamentals" by B. Whitfield Griffith, Jr. He explains dot products and contour integrals too.

Best regards, Richard Harrison, KB5WZI

1778. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 21:40:12 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <%4%ue.10736$mD6.4318@fe07.lga>
Source record: 74344

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11bol3169613116@corp.supernews.com...
> >Greetings
>>
>>A gentleman on another group.. is telling me that he wants to put up an
>>offset dipole antenna and feed it with a balum.. He is a new amateur and I
>>can tell he does't have much antenna knowledge...
>>
>>He is being advise to use an offset antenna wich in my mind isn't the best
>>answer to his problem....
>
> That may depend to some extent on what his problem is >>grin<<
>
>>Does anyone know of a website that describes the offset antenna better than
>>I can....
>
> http://www.cebik.com/gup/gup9.html seems a good place to start.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO

Larry, what do you mean by 'offset'? Do you really mean 'off-center fed'? If that's the case the only reason one would want to feed an antenna off center would be if it permitted a better chance for a 90° angle between the antenna and the feedline from where the feedline enters the house.

A dipole is a dipole, no matter how it's fed, center, off center, or end. The only difference in the radiation pattern between the various methods of feeding is the re-radiation effect of the feeder if it's not in a neutral portion of the radiation from the dipole, causing current to flow on the feeder and thus radiating in addition to that of the dipole.

The dipole fed at the center with the feedline coming away from the dipole at 90°, the feedline will not be a part of the radiator, unless the feedline is coax with no balun. The balun prevents antenna currents from flowing on the outside of the coax shield, thus preventing radiation fromthe feedline.

Incidentally, the spelling is baluN, not baluM, the term coming from the combination of two words, BALance to UNbalance.

Walt, W2DU

1779. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 21:42:13 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <V6%ue.33207$J12.1417@newssvr14.news.prodigy.com>
Source record: 74345

Reg Edwards wrote:
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:d9hqpn$q59$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
>>>VSWR isn't a REAL problem! Deal with it!
>>>
>>>VSWR is real and ENGINEERS and Ham Radio operators make
>
> transmission
>
>>>lines and antennas work; while Physicists wonder if it's real or
>>>uncertain. [My 80 meter antenna has a VSWR of >30:1. It works just
>>
>>fine!]
>>
>>====================================
>>
>>Anything will work after a fashion. It's no proof of anything.
>>
>>It is not realised by many amateurs and engineers that the so-called
>>SWR meter does not measure SWR. It merely indicates whether or not
>>the transmitter is loaded with its design resistance. Which, of
>>course, is useful.
>>
>>The meter not located in the right place to measure SWR on the
>>feedline. The feedline on which it is imagined SWR is measured does
>>not exist.
>>
>>To measure SWR on any line a moving voltmeter is required. SWR is
>>simply max volts divided by min volts which occur at a distance
>
> apart
>
>>of 1/4-wavelength if the line is long enough, and requires no
>>knowledge of line impedance or its terminating impedances, or of
>>anything else about the line.
>>
>>In other words, SWR is just something for Old Wives and "clever"
>>people to plagiarise and waffle about, on newsgroups and in the
>>magazines, and so continue to mislead themselves together with the
>>unfortunate learners, CB-ers, and the novices.
>>----
>>Reg, G4FGQ
>>

>
> ================================
>
> In other words, ENGINEERS make transmission lines and antennas work by
> copying what was done last time.
>
> Nothing has changed since Oliver Heaviside, 1875 - 1925.
>
> If anybody mentions G5RV I shall cry.
> ----
> Reg, G4FGQ
>
>

G5RV
73,
Tom Donaly, KA6RUH

1780. Re: Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 21:56:59 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <6audnWXLpshxHCHfRVn-oQ@comcast.com>
Source record: 74346

"Bob B." <barn@newsguy.com> wrote in message
news:if7ob19hbqrjujpo8moi6evcnou8f080n0@4ax.com...
> Hello...
>
> Will an antenna rotator like a Radio Shack or Channel Master work if
> hung upside-down from a roof beam, or should I try to come up with a
> way to secure it to the attic floor?

I know the closer you get to the roof, the smaller the permissible turning radius, so maybe you need to cut through the attic floor and attach the rotator to the side of a joist. There might be 6" more room that way.

73, Chuck W6PKP

1781. Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 21:58:38 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_42bcbdb6@fidonet.org>
Source record: 74276

"Bob B." bravely wrote to "All" (24 Jun 05 11:01:20)
--- on the heady topic of "Attic antenna: rotator upside-down work?"

BB> From: Bob B. <barn@newsguy.com>
BB> Xref: aeinews rec.radio.amateur.antenna:33120

BB> Hello...

BB> Will an antenna rotator like a Radio Shack or Channel Master work if
BB> hung upside-down from a roof beam, or should I try to come up with a
BB> way to secure it to the attic floor?

BB> I know rotators are designed to handle a certain weight, but I can't
BB> guess at what they'd do with a "negative" weight...

BB> The antenna I'm looking to rotate is a Channel Master 8-bay bowtie.
BB> (CM4228)

BB> Thanks,
BB> -Bob-
BB> N1GYL

I think it might work because rotators are rated for a large wind load
and hanging upside down doesn't even seem to come close to that.
However, I'd call the mfr first to ask for their recommendation
before doing it. I doubt any gears in the rotator depend on gravity to
stay in place. OTOH do you think fix mounting the rotator shaft and
having the antenna hanging off the mast fixture instead might work?

A*s*i*m*o*v

... Thank Thor Friday Nears!

1782. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 22:13:06 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <Iradne3JiLfrGCHfRVn-sA@comcast.com>
Source record: 74347

"larry" <larya@rogers.com> wrote in message
news:_K6dncKmBLpD0SHfRVn-uQ@rogers.com...
> Greetings
>
> A gentleman on another group.. is telling me that he wants to put up an
> offset dipole antenna and feed it with a balum.. He is a new amateur and I
> can tell he does't have much antenna knowledge...
>
> He is being advise to use an offset antenna wich in my mind isn't the best
> answer to his problem....
>
> Does anyone know of a website that describes the offset antenna better
than
> I can....
>
> Larry ve3fxq

Hi, Larry,

An off-center fed antenna doesn't necessarily produce unbalanced feeder currents - - just a different feeding impedance level, which he will no doubt take care of with a tuner or a 4:1 ratio in the balun if single band use is all he wants and he can find the right spot for the feeder. Of course the balun takes care of any unbalance that might be due to the feeder not making a 90 degree angle with the antenna. There's nothing wrong with his idea.

I just typed it balum, too, so don't be concerned - - we all make typos.

73, Chuck W6PKP

1783. CX-1209/U

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 22:55:43 UTC
From: "James F. Mayer" <jfma@ix.netcom.com>
Message-ID: <Pb0ve.12433$eM6.2878@newsread3.news.atl.earthlink.net>
Source record: 74348

I have an RT70A/GRC that needs a power connector I think that this particular radio has never been used sinceI bought it back in the mid '70's and I have not had it powered up for the lack of proper connectors or power supply. Now that I have power supplies to power it, I need the connector and cable to make it work.

1784. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 23:19:58 UTC
From: larry <larya@rogers.com>
Message-ID: <neqdnbaMtuBQCCHfRVn-oQ@rogers.com>
Source record: 74349

Thank you to all three of you...
I saw the webpage.. I must admit I did have too much faith in this 'offset' kind of antenna.... I am going to send this webpage to the other group... Personally, I don't believe in baluns even thought they seem to have their benefits.. I still believe that matching circuts should be variable but I am always open to more eduction...
Thanks for your input... much appreciated...
Larry ve3fxq

"Dave Platt" <dplatt@radagast.org> wrote in message news:11bol3169613116@corp.supernews.com...
> >Greetings
> >
> >A gentleman on another group.. is telling me that he wants to put up an
> >offset dipole antenna and feed it with a balum.. He is a new amateur and I
> >can tell he does't have much antenna knowledge...
> >
> >He is being advise to use an offset antenna wich in my mind isn't the best
> >answer to his problem....
>
> That may depend to some extent on what his problem is >>grin<<
>
> >Does anyone know of a website that describes the offset antenna better than
> >I can....
>
> http://www.cebik.com/gup/gup9.html seems a good place to start.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

1785. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-24 23:45:04 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <c7ednXSZq82dBiHfUSdV9g@ptd.net>
Source record: 74350

In article <%4%ue.10736$mD6.4318@fe07.lga>, walt@w2du.com says...

>Larry, what do you mean by 'offset'? Do you really mean 'off-center fed'? If
>that's the case the only reason one would want to feed an antenna off center
>would be if it permitted a better chance for a 90ï¿½ angle between the antenna
and
>the feedline from where the feedline enters the house.

I can think of a couple more. One reason would be
to achieve a reasonably good match to the antenna
on more than one band using coax and no transmatch.
Another reason is that an off-center-fed dipole tends
to have a broader SWR curve than a center-fed dipole
(coax feed and single-band operation assumed).

73,
Bob

--
+--+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+--+

1786. Re: regolazione antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:00:31 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <E71ve.2652$gr.1363@bignews1.bellsouth.net>
Source record: 74351

"Nico" <pituffo@libero.it> wrote in message
news:y8wue.32955$b5.1435976@news3.tin.it...
>
> vorrei sapere come si fa a stabilire la migliore posizione dell'antenna
per
> un'ottima ricezione
> ...

That's easy for you to say.
I can make out the word 'antenna', and 'Dell' and something like
Rice-a-Roni.
So - to answer your question -
If you spill Rice-a-Roni on your antenna, it won't hurt too bad, but it will
probably hurt the Dell computer.

1787. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:04:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <go7pb1dbocuduhd2vdvantjk4v3t5margs@4ax.com>
Source record: 74352

On Fri, 24 Jun 2005 20:51:54 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Nothing has changed since Oliver Heaviside, 1875 - 1925.
Nothing has changed since Ptolemy (85-165) - Oliver, who's she?

1788. Re:rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:14:24 UTC
From: ml <m@di.net>
Message-ID: <m-C91426.20142124062005@news.verizon.net>
Source record: 74353

Wanted to thank you both for having the patients to help with so many explanations over the past few months appreciate it

the responces you provided on this thread is rather interesting , i understood some, but find myself not understanding 'all' and worse still, you raised further questions and a eyebrow....

now i must go once again to 'the books'

something about this and keep forgetting the name , when a light is shined thru a splitter the 2 "" beams still have a relationship to each other

then i think quantum things but even if i expertly understood all these parts, would I have the answers??

seems even w/o a through understanding these things are predictable, so why hasn't anyone built a radio that works on this ? seems it would go faster and further I dunno (referring to the particles that always are opposite once split)(if we could use force to flip one, and the other fliped regardless of distance, than 0/1 streams can be read no?

hey people thought people like einstein were nutz too and he was smart

m

In article <42bb6e3c$1_2@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

> ml wrote:
> > what would be the 'momentum' your referring to? is their a
> > knetic/stored piece i am misssing? or are you just referring to like
> > the flywheel effect for ex a large coil might have
>
> In 1619, Kepler proposed that it was the pressure (momentum)
> of sunlight that blows back a comet's tail. Maxwell, in 1873
> said: "In a medium in which waves are propagated, there is a
> pressure (momentum) in the direction normal to the waves ..."
>
> From "Optics", by Hecht: "One of the most significant properties
> of the electromagnetic wave is that it transports energy and
> momentum." ... "Indeed, whenever we have a flow of energy, it's
> reasonable to expect that there will be an associated momentum -
> the two are the related time and space aspects of motion."
>
> And, of course, energy and momentum are two things that must
> necessarily be conserved. The bottom line is that if there

> are any reflected waves that don't reach the source (and also
> are not dissipated), they must necessarily have had their direction
> of energy and momentum reversed back toward the load. Anything
> else would violate the laws of physics.

1789. Re: Receiving loop antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:34:23 UTC
From: Owen <none@no.where>
Message-ID: <jE1ve.2925$oJ.582@news-server.bigpond.net.au>
Source record: 74354

Reg Edwards wrote:
> "Owen" wrote
>
>>Reg, I mentioned in an earlier post that I was concerned about the
>>estimate of the loop inductance.
>
>
> Owen,
>
> The HF inductance of a square loop is -
>
> L = 0.8 * H * (Ln(4 * H / D) - 1.467) microhenries,
>
> where H is length of one side,
>
> and D is diameter of circular conductor,
>
> both dimensions are in metres.
>

Though it looks a little different, that formula will always produce
exactly the same results as the one that I have used.

> There are half a dozen other formulas which at first appear to be
> different from the above but can be mathematically transformed to be
> identical. And then there are imperial and metric units.
>
> I got it out of one of one of my old notebooks. It's what I use in my
> programs. I think I stole it from Terman. And Terman stole it from
> Grover. So it's sure to be accurate enough for anything you are ever
> likely to use it for.

I looked in Terman, but didn't find it, and still can't. I might be blind!

I got it from http://emcsun.ece.umr.edu/new-induct/ but it obviously
shares the same root as yours. They attribute it to Grover.

>
> It is obviously an approximation because when a large conductor
> diameter is comparable with a very short length of side, the
> inductance has a negative value.

Understood.

>
> As a sanity check, compare it with whatever formula you have used up

> to now.

See above. I think you are telling me I should be confident I am sane.
If it was just that easy!

Now I just have to find someone with access to an OATS to measure one of
these things.

Thanks Reg...

Owen

1790. Re: regolazione antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:43:00 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <614fc$42bca895$438df14a$7179@ALLTEL.NET>
Source record: 74355

Translation:
I would want to know how to establish the best position of an antenna for optimal reception
"Hal Rosser" <hmrosser@bellsouth.net> wrote in message news:E71ve.2652$gr.1363@bignews1.bellsouth.net...
>
> "Nico" <pituffo@libero.it> wrote in message
> news:y8wue.32955$b5.1435976@news3.tin.it...
> >
> > vorrei sapere come si fa a stabilire la migliore posizione dell'antenna
> per
> > un'ottima ricezione
> > ...
>
> That's easy for you to say.
> I can make out the word 'antenna', and 'Dell' and something like
> Rice-a-Roni.
> So - to answer your question -
> If you spill Rice-a-Roni on your antenna, it won't hurt too bad, but it will
> probably hurt the Dell computer.
>
>

1791. Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:44:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bca9d5$1_2@spool9-west.superfeed.net>
Source record: 74356

ml wrote:
> then i think quantum things but even if i expertly understood all
> these parts, would I have the answers??

(Quote from Max Planck) "A new scientific truth does not triumph by
convincing its opponents and making them see the light, but rather
because its opponents eventually die, and a new generation grows up
that is familiar with it."
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1792. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:48:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t09pb1tgqkacak79akbtrjpt1eeh2oic6h@4ax.com>
Source record: 74357

On Fri, 24 Jun 2005 17:04:26 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:
>Ptolemy (85-165)
Something from his Almagest, Book 1, that is vaguely descriptive of
someone we all know and love:
"Well do I know that I am mortal, a creature of one day.
But if my mind follows the winding paths of the stars
Then my feet no longer rest on earth, but standing by
Zeus himself I take my fill of ambrosia, the divine dish."
This epigram follows the table of contents as something of a
self-dedication (also a mannerism we are familiar with).

Ptolemy also reduced much of his theory of Astronomy and Optics to
geometric construction techniques in many Handbooks and offered scads
of tables of observations - some of which were condemned by Newton:
"[Ptolemy] developed certain astronomical theories and discovered
that they were not consistent with observation. Instead of
abandoning the theories, he deliberately fabricated observations
from the theories so that he could claim that the observations
prove the validity of his theories. In every scientific or
scholarly setting known, this practice is called fraud, and it is
a crime against science and scholarship."

There still remain some high Q resonances with that condemnation.

Well, the validity of that accusation has to be judged in light of
Newton's own flamboyant fudging of "observed" times for the speed of
sound forced-fit into his own theoretical work. Those errors are so
stunning that Isaac must've thought no one would ever discover them
while reading his sleeping pill.

There've been a lot of grave robbers that have come down the pike
since that fall from grace in the garden.

73's
Richard Clark, KB7QHC

1793. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:52:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bpan6pobgvq5c@corp.supernews.com>
Source record: 74358

Chuck Olson wrote:
>
> Hi, Larry,
>
> An off-center fed antenna doesn't necessarily produce unbalanced feeder
> currents - -

I'm sorry to say, it does. There's coupling from the feedline to each side of the antenna, and unlike a symmetrical dipole with feedline at right angles, the coupling from each side is unequal. This results in unbalanced feeder currents. If the feedline is twinlead or open wire line, this shows up as unequal currents on the two conductors. On coax it manifests itself as current on the outside of the shield. In both cases, the result is the same -- feedline radiation.

This can be shown quite dramatically by simple modeling. I've also seen it myself by direct measurement(*). A current balun (NOT voltage balun) at the feedpoint will reduce the conducted common mode current just as it will with a dipole, but you still have to deal with common mode current due to coupling. Depending on the frequency and the feedline length and orientation, you might get lucky and not have too much feedline current. On the other hand, it can be bad enough to aggravate RFI problems if the feedline is routed near power or telephone lines, or cause trouble with your rig or shack accessories.

> just a different feeding impedance level, which he will no
> doubt take care of with a tuner or a 4:1 ratio in the balun if single band
> use is all he wants and he can find the right spot for the feeder. Of course
> the balun takes care of any unbalance that might be due to the feeder
> not making a 90 degree angle with the antenna. There's nothing wrong
> with his idea.

See above comments. Routing the feeder at right angles to the antenna doesn't eliminate current due to mutual coupling, and neither does a feedpoint balun.

>. . .

(*) You'll find some measured values of feedline current and more discussion about it in "The Off-Center-Fed Dipole Revisited: A Broadband, Multiband Antenna" by John Belrose, VE2CV and Peter Bouliane, VE3KLO, QST, Aug. 1990.

Roy Lewallen, W7EL

1794. Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:55:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sgapb1tlphjeham6civukam3j6ifssl82d@4ax.com>
Source record: 74359

On Sat, 25 Jun 2005 00:14:24 GMT, ml <m@di.net> wrote:

>hey people thought people like einstein were nutz too and he was smart

A fellow develops a flat tire and pulls to the side of the road, next
to the local insane asylum.

As he is removing the flat, and having put the nuts into the hub-cap,
he notices an inmate staring at him through the bars of his windowed
room.

As he remounts the spare, he spills the hub-cap's contents into the
storm drain. He begins to swear and pull his hair out - what's he
gonna do?

From the window: "Remove one nut from each of the other wheels"

Stunned, the driver takes the advice and asks, "What are you doing in
there?"

"I may be crazy, but I'm not stupid."

73's
Richard Clark KB7QHC

1795. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 00:57:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bpavkng2gkfd3@corp.supernews.com>
Source record: 74360

Richard Clark wrote:
> . . .
> Ptolemy also reduced much of his theory of Astronomy and Optics to
> geometric construction techniques in many Handbooks and offered scads
> of tables of observations - some of which were condemned by Newton:
> "[Ptolemy] developed certain astronomical theories and discovered
> that they were not consistent with observation. Instead of
> abandoning the theories, he deliberately fabricated observations
> from the theories so that he could claim that the observations
> prove the validity of his theories. In every scientific or
> scholarly setting known, this practice is called fraud, and it is
> a crime against science and scholarship."
> . . .

How ironic! I recall an article in _Scientific American_ many years ago which presented credible evidence that Newton himself fudged his data. The author argued, and gave examples to show, that some of Newton's data were much too accurate and consistent for the techniques and equipment he used.

Roy Lewallen, W7EL

1796. Re: J pole/coax radition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 01:06:03 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42bcadfb$0$32199$39cecf19@news.twtelecom.net>
Source record: 74361

Old Ed wrote:

> Hi Dan,
>
> My, you are a bit on the arrogant and foul-mouthed side, aren't you!
>
> It would be tedious to try and dissect your attributions of positions
> that I did not take, so I'll skip that.
>
> I'll just point out that as an E.E. with three degrees from a top-5
> engineering school, and a lifelong specialization in RF engineering,
> I don't need any patronizing lectures from you. "Physician," heal
> thyself... or at least try to understand the difference between
> theoretical niceties and practical effects. Reading Dave's posts
> might help. (He's much more patient with twits than I am, and
> explains things well.)
>
> BTW, I have nothing against coax "baluns," unless they become
> physically awkward, or noticeably increase cable loss.

Just catching up on things a week or so after the post you made.

I suspect you have 3 EE degrees because you stated such, so you are obviously worlds smarter than I am, especially if it's from a "top 5 school", but since when does a coax choke balun cause loss of anything except feedline radiation, which you don't want anyway?

Tom
K0TAR

1797. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 02:18:42 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <7a3ve.5467$B_3.113@fe05.lga>
Source record: 74362

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9h6q9iss1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Ian White GM3SEK" wrote
>
>> That was an administrative policy decision rather than a technical
> one.
>> From the technical viewpoint, everybody agrees that 120*0.25wl is
> more
>> than enough to override the local ground conditions under the tower
>> irrelevant.
>>
> ==========
>
> - - - - and since soil resistivity decreases with increasing
> frequency, and the impedance due to soil capacitance also decreases
> with increasing frequency, everybody agrees that 1/8th wavelength or
> less is more than long enough.

Reg, do you really mean what you said above, 'soil resistivity decreases with increasing frequency'? Are you sure you didn't mean soil conductivity decreases with increasing frequency? In my experience with AM BC antennas I've found that conductivity decreases, not resistivity.

The FCC charts showing signal level vs conductivity and frequency overwhelmingly show conductivity decreasing with frequency. So you ask, what proof is there that the FCC charts are correct? Well, Reg, soil conductivity measurements of thousands of AM antenna systems world wide have proved them correct.

As an example that I posted a few days ago, consider the coverage area from afforded by a single 1/4wl vertical radiating 250 watts at 550 KHz with a signal strength of 1 mv/meter at one mile and a conductivity of 8. If the frequency were raised to 1500 KHz with a 1/4wl vertical at that frequency, the power required to cover the same area is 47 KW.

Does this example indicate a decreasing soil resitivity with increasing frequency or a decreasing soil conductivity?

Walt, W2DU

1798. Re: regolazione antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 02:54:34 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <PG3ve.1830$Zo.954@bignews3.bellsouth.net>
Source record: 74363

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:614fc$42bca895$438df14a$7179@ALLTEL.NET...
> Translation:
> I would want to know how to establish the best position of an antenna for
> optimal reception

Kool -
New answer based on that translation:
Best position is
Up HIGH!!! big altitude on top of bigum pole maximus hight sky-high

1799. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 03:40:45 UTC
From: Buck <iam@this.site>
Message-ID: <ttjpb1petvp3nbvdoom790da6vjgn8vhon@4ax.com>
Source record: 74364

On Thu, 23 Jun 2005 15:06:33 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>On 23 Jun 2005 12:29:51 -0700, "Brian Kelly" <kelly@dvol.com> wrote:

>>Inductors are lossy. Capacitors are not. Use the tuner settings which
>>provide a 2:1 VSWR match or better with the least possible amount of
>>inductance. In other words use the least amount of inductance you can
>>get away with.
>

>First all should note that this is a pi-network. Suggestions to use
>an MFJ (tee-network) tuning procedure are wrong.
>
>Here is a random example made up on the spur of the moment.
>
>Assume the load is 20 +j50 @ 14 MHz. SWR = 5.2
>
>Also assume that the tuning capacitor(s) Q = 500 and the inductor Q =
>200, both typical values.
>
>A nearly optimum solution, from a match and loss standpoint is:
>
>Cin = 140.3 pF, L = .958 uH, Cout = 333.6 pF.
>
>The input z = 49.69 +j0.03 or SWR = 1.006 , Loss = 0.09 dB.
>
>Now, let's force the inductance to a lower value.
>
>Cin = 422 pF, L = 0.67 uH, Cout = 471.3 pF.
>
>The input Z = 49.6 -j0.04 or SWR = 1.008 but the loss = 0.18 dB.
>
>The loss doubled when the inductance was lowered.
>
>All of this is easily calculated using a free tool: XLZIZL.xls.
>

Does anyone know what kind of network is in the TenTec 247?

I have one and noticed it will tune most bands with three different
inductance settings.

--
73 for now
Buck

N4PGW

1800. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 04:12:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9iljglkv1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74365

I'm not quite clear what you are talking about, but the impedance seen looking into the feedpoint of a 1/2-wave resonant dipole when the feedpoint is at the centre, is a purely resistive 70 to 73 ohms.

As the feedpoint is moved away from the centre the impedance rapidly increases (approximately proportional to the square of the offset) BUT REMAINS PURELY RESISTIVE until, as the feedpoint nears the end of the dipole, it rises to several thousand ohms, purely resistive.

This is the impedance which terminates the twin feedline. But if there is a choke in the line at this point then the choke can be considered to be a short length of line of the same length and Zo as is wound on the choke.

The short length of line on the choke will then TRANSFORM the antenna input impedance to a somwhat different value to terminate the line. (For the purpose of calculating SWR on the line, and the line's input impedance, etc.)

Now carry on from there. ;o)

Reg, G4FGQ

"Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message news:Iradne3JiLfrGCHfRVn-sA@comcast.com...
>
> "larry" <larya@rogers.com> wrote in message
> news:_K6dncKmBLpD0SHfRVn-uQ@rogers.com...
> > Greetings
> >
> > A gentleman on another group.. is telling me that he wants to put up an
> > offset dipole antenna and feed it with a balum.. He is a new amateur and I
> > can tell he does't have much antenna knowledge...
> >
> > He is being advise to use an offset antenna wich in my mind isn't the best
> > answer to his problem....
> >
> > Does anyone know of a website that describes the offset antenna better
> than
> > I can....
> >
> > Larry ve3fxq

>
> Hi, Larry,
>
> An off-center fed antenna doesn't necessarily produce unbalanced
feeder
> currents - - just a different feeding impedance level, which he will
no
> doubt take care of with a tuner or a 4:1 ratio in the balun if
single band
> use is all he wants and he can find the right spot for the feeder.
Of course
> the balun takes care of any unbalance that might be due to the
feeder
> not making a 90 degree angle with the antenna. There's nothing wrong
> with his idea.
>
> I just typed it balum, too, so don't be concerned - - we all make
typos.
>
> 73, Chuck W6PKP
>
>
>
>

1801. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 04:22:28 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11bpmtiaq7flee@corp.supernews.com>
Source record: 74366

... and, while I may have misplaced the place where this happened (I could have heard this when I was at U of Manchester), it seems that an extensive set of early measurements of c were deliberately "sorted" and produced an expected value and std that was outside of the actual value of c. When the logbooks containing all of the measurements were consulted many decades later, it was found that if one used all of the measurements the actual expected value of c was within the expected error.

It is late and I have not quite said everything right. The (old) published expected c and its std were well outside of the actual c. When the old data was used in its entirety, the newly calculated expected c and its std encompassed the actual value of c. (Note "expected" has a technical meaning.)

The moral is to keep a complete log and be honest. It is much more easy to do both when one has numbers. Before some of my work at Ohio State, one had to extract numbers from strip chart recordings using slave labor.

Mac (who should be in bed) N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11bpavkng2gkfd3@corp.supernews.com...
> Richard Clark wrote:
> > . . .
> > Ptolemy also reduced much of his theory of Astronomy and Optics to
> > geometric construction techniques in many Handbooks and offered scads
> > of tables of observations - some of which were condemned by Newton:
> > "[Ptolemy] developed certain astronomical theories and discovered
> > that they were not consistent with observation. Instead of
> > abandoning the theories, he deliberately fabricated observations
> > from the theories so that he could claim that the observations
> > prove the validity of his theories. In every scientific or
> > scholarly setting known, this practice is called fraud, and it is
> > a crime against science and scholarship."
> > . . .
>
> How ironic! I recall an article in _Scientific American_ many years ago
> which presented credible evidence that Newton himself fudged his data.
> The author argued, and gave examples to show, that some of Newton's data
> were much too accurate and consistent for the techniques and equipment
> he used.
>
> Roy Lewallen, W7EL

1802. 28mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 05:31:09 UTC
From: KI4CER <qikcomget@yahoo.com>
Message-ID: <1119677469.165116.283260@o13g2000cwo.googlegroups.com>
Source record: 74367

I have never seen a bigger bunch of crap than the crap posted on this sight.I didn't see one call sign on the entire message post.The stuff listed (and all it was was stuff)meant nothing to no one.sounds like to me a bunch of wan a be's.Well don't let me catch you talking on 28mhz's if you don't have a valid F.C.C. certificate of issue.I live to smight the wicked truckerness on 28mhz.I run the full legal limit and our GOD HOLY RILEY HOLLINGSWORTH hath given me the power to smight thy truckerness and thy lewdness,and there ain't a damn thing you can do about it.So I will look foward to warming up my equipment and standing guard waiting for one peep from an un licenced asshole.Get the message???????KI4CER

1803. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 05:42:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9iqs7$t4q$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74368

Walter,

Your ancient charts, which I think I have once seen but don't now have ready access to, apply to LF. Permittivity was ignored when they were calculated. The curves were intended to be used as a guide, better than nothing, rather than the Bible on the subject.

But amateurs are concerned with what happens at HF. There are a lot of MHz between 16 KHz, 500 KHz and 40 MHz

I think the discrepancy about conductivity vs frequency is due to simplification of the equivalent circuit of soil which, in its most simple form, is a resistor in shunt with a capacitor.

As frequency increases the capacitative impedance decreases and drags the equivalent resistive component down with it. There is a significant decrease at around 7 MHz. At 30 or 40 MHz the soil has changed from being mainly resistive at LF to being mainly capacitative and not nearly so lossy.

The capacitance between a pair of 1 metre square plates, spaced 1 metre apart, is only 8.8 pF. But when muliplied by the permittivity of damp soil the impedance at 30 MHz is quite low. The permittivity of water is 80.

Simple conductivity does not apply. We are not talking about the same things.

Actually, its not worth arguing about. The uncertainty in soil characteristics is plus or minus 30 or 40 percent. And it makes less than 1 S-unit difference to the performance of radials and Eznec take off angles at HF. No doubt Roy will disagree as a matter of Boston Tea Party principles. And Richard, KB7QHC, will spin off at a tangent into Shakesperian verse.

Hope this clarifies my Altzeimer's thoughts on the matter.

Reg, G4FGQ

1804. BroadcastDB - Listen to live radios - Watch live TV: Just added:

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 05:48:46 UTC
From: streaming@broadcastdb.com
Message-ID: <1119678526.578740.53860@g14g2000cwa.googlegroups.com>
Source record: 74369
Cross-posted to: fj.rec.radio,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.music.france

BroadcastDB - Listen to live radios - Watch live TV: Just added:

http://www.broadcastdb.com/

Station of the Week:

Onda 8 Radio 88.8 FM - Dance, News, CHR - Malaga, Andalucia / Spain

New stations:

Webradio Tuga - Portuguese music - London/UK/ Portugal
Q 102 FM - Adult Contemporary - Dublin / Ireland
Clasica 100.1 FM - Classical - Rosario, Prov. Santa Fe / Argentina
Compacto 87.9 FM - Dance, Hits, Pop - . Santa Fe / Argentina
Femenina 96.7 FM - Romantic, latin, soccer from Chile, news - Region VIII Bio Bio / Chile
Sintonia 88 FM - Hits, CHR - Fuerteventura Las Palmas, Canary islands / Spain
Südtirol1 103.7 FM - Rock, pop , news , local - Trentino Alto Adige / Italy
Los 40 FM 91.3 - Top 40 CHR - Panama City / Panama
Marbella Stereo 104.3 FM - Top 40 CHR, Pop - Panama City / Panama
Canal1 Power 92.1 FM - Top 40 CHR, Pop - Panama City / Panama
Radio 10 FM - Top 40 CHR, Pop - Panama City / Panama
AutoRadio 90.3 FM - Adult Contemporary - Pern / Russia
Borneo 107.2 FM (128K) - CHR, Top 50 - Voronezh / Russia
Classic Petersburg 88.9 FM - Opera, Classical - St. Pertersberg / Russia
Maximum 103.7 FM - Adult Contemporary - Moscou / Russia
FM 88 - Classic Hits - Buenos Aires / Argentina
Filadelfia 97.1 FM - Variety, Gospel, Evangelic - Buenos Aires / Argentina
Masiva 100.1 FM - Pop - Jose C Paz, Gran Buenos Aires / Argentina
Norte 91.9 FM - Adult Contemporary - Buenos Aires / Argentina
Rio 89.7 FM - CHR, Pop - Buenos Aires / Argentina
Webradio Una - Webradio, Pop Alternative - Buenos Aires / Argentina
Espiral 106.4 FM - Hard Dance, Progresive, House - Valencia / Spain
Futura 90.8 FM - Dance, Pop - Valencia / Spain

http://www.broadcastdb.com/

- Search our database of live radios and TV's
- Save a list of your favorite stations
- Rate the stations - let others know who has the best music
- Add stations, help us build the biggest stream database on the web

Listen live radios by format

Talk, news, sports, variety, religious, classical, jazz, latin,
brasilian music, easy listening, ambient, lounge, alternative, college,
CHR, Top 40,
Dance, Urban, Rock, classic rock, adult contemporary, classics, oldies,
country.

http://www.broadcastdb.com/

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http://www.broadcastdb.com
Radios, TV, live streams on the web!
A database of all Live broadcast stations on the Internet

1805. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 07:09:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vptpb1dl52464l44vebachnu36do3jphbf@4ax.com>
Source record: 74370

On Sat, 25 Jun 2005 05:42:31 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Richard, KB7QHC, will spin off at a tangent into Shakesperian verse.

Hi Reg,

Let's draw a chord between 3 soil samples to see how fruitless knowing
"How to measure soil constants at HF" really is:

You are in farm country where the annual rainfall is 835mm. Where the
mean temperature is 12.8ï¿½C. Where the soil is 20% sand, 65% silt, and
15% clay.

What is the Conductivity in the 80M band?

You are in farm country where the annual rainfall is 360mm. Where the
mean temperature is 4.9ï¿½C. Where the soil is 65% sand, 20% silt, and
15% clay.

What is the Conductivity in the 80M band?

You are in farm country where the annual rainfall is 790mm. Where the
mean temperature is 6.9ï¿½C. Where the soil is 31% sand, 33% silt, and
36% clay.

What is the Conductivity in the 80M band?

OR

We return to our regularly scheduled "More Les Dames d'Escoffier
Recipes with your host Punchinello." Today we discuss packing coaxial
tubes with meringue to measure propagation delay for custards.

73's
Richard Clark, KB7QHC

1806. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 07:56:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9j2nmsis1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74371

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:vptpb1dl52464l44vebachnu36do3jphbf@4ax.com...
> On Sat, 25 Jun 2005 05:42:31 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >Richard, KB7QHC, will spin off at a tangent into Shakesperian
verse.
>
> Hi Reg,
>
> Let's draw a chord between 3 soil samples to see how fruitless
knowing
> "How to measure soil constants at HF" really is:
>
> You are in farm country where the annual rainfall is 835mm. Where
the
> mean temperature is 12.8�C. Where the soil is 20% sand, 65% silt,
and
> 15% clay.
>
> What is the Conductivity in the 80M band?
>
> You are in farm country where the annual rainfall is 360mm. Where
the
> mean temperature is 4.9�C. Where the soil is 65% sand, 20% silt,
and
> 15% clay.
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>
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the
> mean temperature is 6.9�C. Where the soil is 31% sand, 33% silt,
and
> 36% clay.
>
> What is the Conductivity in the 80M band?
>
> OR
>
> We return to our regularly scheduled "More Les Dames d'Escoffier
> Recipes with your host Punchinello." Today we discuss packing
coaxial

> tubes with meringue to measure propagation delay for custards.
>
> 73's
> Richard Clark, KB7QHC

==========

I don't know. And neither do you or anybody else.

If you DID know you would not have the foggiest idea what to do with the data anyway. I might!

Havn't I recently said the uncertainty in ascertaining soil characteristics is in the order of 30 to 40 percent and not worth arguing or making yourself appear ridiculous about.

There's missing data. You forgot the iron oxide content and soil permeability.

Punchinello.

1807. Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 08:21:26 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <0fwn6EIGQRvCFAsv@ifwtech.co.uk>
Source record: 74372

ml wrote:
>
>then i think quantum things but even if i expertly understood all
>these parts, would I have the answers??
>
You don't need to "think quantum things" about this problem.

The discovery of quantum physics was that energy levels aren't continuous. A "system" (whatever it may be) can only have certain levels of energy - in-between energy levels are not allowed. To change between energy level, the system must emit or absorb quanta of energy.

Quantum energy E is related to frequency (f, Hz) by E = h*f, where h is Planck's constant = 6.6 x 10^-34 Joule seconds.

At 10MHz, the quantum energy is 0.000 000 000 000 000 000 000 000 0066 joules. This is so small that - for all practical purposes - ANY energy level is possible, and quantum effects at radio frequencies are so small they are irrelevant.

So quantum physics has just *confirmed* that, at radio frequencies, classical EM physics is all you need to know.

>hey people thought people like einstein were nutz too and he was smart
>
The question is: are there any Einsteins here?

Antennas and transmission lines are home territory for classical EM physics, right in the middle of our map of existing knowledge. There are still lots of interesting new things to be discovered there; but we know in advance that they MUST join up with the existing map, because it surrounds us on every side.

Anybody who imagines he's an Einstein, exploring the outer boundaries... is just plain lost.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1808. Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 09:19:42 UTC
From: Mark
Message-ID: <et7qb1la2lr29hpnu0741kv79ii9ecj2c8@4ax.com>
Source record: 74373

Please could somebody tell me the best cable (compromise between cost and loss) for use with an external Yagi antenna connected to a mobile phone. I live in a Very poor reception area, and I need to fit an external antenna. I have found somewhere that sells 10 element Yagi's, and I can mount the thing as high as need be, but I read somewhere that the longer the connecting cable, can negate the benefits of long mounting poles. I have freinds in the surrounding area that have the same problem, so I could do with a "rule of thumb" that I can use for fitting these things. The shop where I got the antenna from is offering me RG58 cable for this purpose, which is cheap enough, but is it the best compromise for what I am trying to achieve? Your assistance would be most welcome.
Mark

1809. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 09:42:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bq9oriipqncd8@corp.supernews.com>
Source record: 74374

Reg Edwards wrote:
> . . .
> The attenuation due to skin effect and wire inductance along lossy
> radial wires is rather high. There's negligible current flowing in
> them at distances greater than 1/4-wavelength at their own velocity.
> The wires may just as well not be there.
> . . .

I'm afraid your oversimplified model of how radials work has once again led you astray. B, L, & E's measurements show the following:

For an 88 degree high vertical, where n is the number of radials, the following fraction of the current at the center is flowing in the radial 1/4 wavelength (at a velocity factor of 0.2, the approximate VF in the radial's environment), from Fig. 42 of their paper:

n Fraction
15 0.67
30 0.68
60 0.90
113 ~ 1.0

1/4 *free space* wavelength from the center:

n Fraction
15 0.19
30 0.14
60 0.26 [This is a minimum; it rises then drops further out]
113 0.61 " "

Note that the results are quite different when the radiator is only 22 degrees high (Fig. 43) -- the resonant effects apparent on the 60 and 113 radial measurements are absent, and the currents decay monotonically. There isn't nearly as much difference between 15 and 113 radials. But with 15 radials, the current 1/4 in-ground wavelength from the center is still about 67% of the current at the center.

Again I see evidence that your analysis overlooks the interaction among radials. There's less interaction when there are only a few, but even with 15 your analysis has led you badly astray. And does it account for the considerable differences with different radiator heights?

But I've pointed this out to you before yet you keep promoting this myth, so I guess you just don't want to be confused by the facts.

> If B. L & E, made any errors, they made sure they erred on the safe
> side regarding numbers.

One of their key results is that ". . .the ground system consisting of only 15 radial wires need not be more than 0.1 [free space] wave length long, while the system consisting of 113 radials is still effective out to 0.5 [free space] wave length."

Their results agree reasonably well with NEC-4 modeling. But I'm sure glad we've got you to set us straight about how well they did and how they could have improved their methods. You've surely got a clearer perspective, not having been prejudiced by actually reading their paper.

Oops, here I am nitpicking again -- pointing out that .67 doesn't equal zero.

Roy Lewallen, W7EL
Certified Reg's Old Wife and Nit-Picker

1810. re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 10:10:51 UTC
From: ml <m@di.net>
Message-ID: <m-DA7782.06104825062005@news.verizon.net>
Source record: 74275

thanks for responding Ian:

No doubt your correct about alot, and clasically speaking i wouldn't argue, however 2 points

firstly my comparsion to einstein wasn't regarding myself i was making a joke that my 'theories /ideas' are often thought of as crazy but who knows

regarding your being so firm saying that rf is typically just conventional physics, I dunno..
who says it's confirmed to our space??

we are only just begining to see the possibilities that things in our deminsion/ or time "e space" do in fact have relationships with 'other ' things, some of which might be having effects out of phase, 'time' or having somthing corresponding in another dimension so to speak (for example)

it's not unfathomable to think that the sum of our current knowledge might no be infinate, perhaps we've simply failed to measure ? who knows what tomorrows proved new theories will bring?

already here waves(rf) conventional were compared to photonic 'energy'(now thats something few can understand alone) and those photos do some really strange things w/regards to the above (even more strange)

conventionally speaking your correct of course, but i always keep an open mind towards possibilities, and crazy theories, since rf is still such a not understood umm blackhole or i am just crazy

yeah i am just a nutty non scientific type throwing wackey ideas i have into that round black hole hoping that i'll find the right sized peg(my best asylm analogy rich) not cause i want to be known, but it's just fun for me to ponder these things

i've already learned alot from you ian thanks again rich and cecil thanks too

m
In article <0fwn6EIGQRvCFAsv@ifwtech.co.uk>,
Ian White GM3SEK <g3sek@ifwtech.co.uk> wrote:

> ml wrote:
> >
> >then i think quantum things but even if i expertly understood all
> >these parts, would I have the answers??
> >

> You don't need to "think quantum things" about this problem.
>
> The discovery of quantum physics was that energy levels aren't
> continuous. A "system" (whatever it may be) can only have certain levels
> of energy - in-between energy levels are not allowed. To change between
> energy level, the system must emit or absorb quanta of energy.
>
> Quantum energy E is related to frequency (f, Hz) by E = h*f, where h is
> Planck's constant = 6.6 x 10^-34 Joule seconds.
>
> At 10MHz, the quantum energy is 0.000 000 000 000 000 000 000 000 0066
> joules. This is so small that - for all practical purposes - ANY energy
> level is possible, and quantum effects at radio frequencies are so small
> they are irrelevant.
>
> So quantum physics has just *confirmed* that, at radio frequencies,
> classical EM physics is all you need to know.
>
>
> >hey people thought people like einstein were nutz too and he was smart
> >
> The question is: are there any Einsteins here?
>
> Antennas and transmission lines are home territory for classical EM
> physics, right in the middle of our map of existing knowledge. There are
> still lots of interesting new things to be discovered there; but we know
> in advance that they MUST join up with the existing map, because it
> surrounds us on every side.
>
> Anybody who imagines he's an Einstein, exploring the outer boundaries...
> is just plain lost.

1811. Re: 28mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 12:13:18 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <fUbve.962$ro.808@fed1read02>
Source record: 74277

"KI4CER" <qikcomget@yahoo.com> wrote in message
news:1119677469.165116.283260@o13g2000cwo.googlegroups.com...
>I have never seen a bigger bunch of crap than the crap posted on this
> sight.I didn't see one call sign on the entire message post.The stuff
> listed (and all it was was stuff)meant nothing to no one.sounds like to
> me a bunch of wan a be's.Well don't let me catch you talking on 28mhz's
> if you don't have a valid F.C.C. certificate of issue.I live to smight
> the wicked truckerness on 28mhz.I run the full legal limit and our GOD
> HOLY RILEY HOLLINGSWORTH hath given me the power to smight thy
> truckerness and thy lewdness,and there ain't a damn thing you can do
> about it.So I will look foward to warming up my equipment and standing
> guard waiting for one peep from an un licenced asshole.Get the
> message???????KI4CER
>

Thus all the non-hams monitoring this ham antenna group have been suitably
warned.

--
Ed
WB6WSN
El Cajon, CA USA

1812. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 14:02:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bd64d4$1_1@spool9-west.superfeed.net>
Source record: 74278

ml wrote:
> already here waves(rf) conventional were compared to photonic
> 'energy'

One conceptual mistake that a lot of people make concerns
the roll of free electrons in a transmission line. It is
the fields/photons that move at the speed of light, not the
electrons. EM energy stored in excited free electrons is
unstable and fleeting. The electron always gives up that
extra energy very quickly in the form of photons which must
necessarily travel at the speed of light and are incapable
of some Old Wives' Tale "sloshing" response.

Just because the electrons are capable of "sloshing" around
doesn't mean that the EM energy can slosh around. The EM wave
energy is not confined to the electrons, it exists ultimately
in the fields/photons in the form of ExH wave energy/time
moving at the speed of light.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1813. Re: 28mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 14:20:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d5bd2$42bd6a74$438df14a$32077@ALLTEL.NET>
Source record: 74279

I am curious as to why you would post such nonsense. You are simply inviting a contestant in the who has the largest member contest.

The typical response will be something like "You (profanity omitted) hams ain't got (P.O.) Iz runin 10KW with a (P.O.) 92 pill Dave made and a balum to co-fazed... " Ad nasuium... What's the point?

"KI4CER" <qikcomget@yahoo.com> wrote in message news:1119677469.165116.283260@o13g2000cwo.googlegroups.com...
> I have never seen a bigger bunch of crap than the crap posted on this
> sight.I didn't see one call sign on the entire message post.The stuff
> listed (and all it was was stuff)meant nothing to no one.sounds like to
> me a bunch of wan a be's.Well don't let me catch you talking on 28mhz's
> if you don't have a valid F.C.C. certificate of issue.I live to smight
> the wicked truckerness on 28mhz.I run the full legal limit and our GOD
> HOLY RILEY HOLLINGSWORTH hath given me the power to smight thy
> truckerness and thy lewdness,and there ain't a damn thing you can do
> about it.So I will look foward to warming up my equipment and standing
> guard waiting for one peep from an un licenced asshole.Get the
> message???????KI4CER
>

1814. Re: 28mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 15:23:04 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11bqtn2s9ioil61@corp.supernews.com>
Source record: 74280

Well, if you are waiting for a reply on this "sight" (sic) for some 28 millihertz discussion, you will be waiting a very long time.

Jim

"KI4CER" <qikcomget@yahoo.com> wrote in message news:1119677469.165116.283260@o13g2000cwo.googlegroups.com...
>I have never seen a bigger bunch of crap than the crap posted on this
> sight.

1815. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 15:30:08 UTC
From: richardharrison@webtv.net
Message-ID: <17269-42BD7880-249@storefull-3254.bay.webtv.net>
Source record: 74281

Reg, G4FGQ wrote:
"Your ancient charts, which I think I have once seen but don`t now have access to, apply only to LF. Permittivity was ignored when they were calculated."

True, they are not for HF. My edition was reprinted by the Seabrooke Printing Company, Inc. and covers the range ftom 540 KHz to 1600 KHz. Dielectric constant (permittivity) is assumed to be 15 in all cases.

The reason there are graphs for frequency segments such as 1560 kc to 1640 kc is that loss increases with frequency. Skin effect is an important faxtor. The higher the frequency, the less it penetrates the earth, so the crust carrying the r-f is thinner. The decline of field intensity versus distance from the transmitter is steeper at HF.

My set of curves has a page which gives the formulas used to construct "surface wave field intensity versus numerical distance over plane earth". It has separate sets of formulas for vertical and horizontal polarizations. Curves in the book are for vertical polarization, the only thing of interest to a broadcaster.

One option would be to construct your own set of curves. Another would be to find some curves which have already been constructed. I don`t know of any but expect that they exist.

Best regards, Richard Harrison, KB5WZI

1816. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 16:08:35 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <HqKdnWouDfI1HCDfRVn-vQ@comcast.com>
Source record: 74282

I cannot recommend a specific cable. But I will say that RG58 is 100% non suitable for use at 920 MHz! RG58 has very high loss and even 100 feet at 920 MHz will loose about 96% of the received signal [-14 dB].

RG8 or RG11 will loose about 1/2 of the received signal. RG8 or RG11 will cost about $0.50 [USD] per foot. Good quality connectors will have to be used.

Mark wrote:

> Please could somebody tell me the best cable (compromise between cost
> and loss) for use with an external Yagi antenna connected to a mobile
> phone. I live in a Very poor reception area, and I need to fit an
> external antenna. I have found somewhere that sells 10 element Yagi's,
> and I can mount the thing as high as need be, but I read somewhere
> that the longer the connecting cable, can negate the benefits of long
> mounting poles. I have freinds in the surrounding area that have the
> same problem, so I could do with a "rule of thumb" that I can use for
> fitting these things. The shop where I got the antenna from is
> offering me RG58 cable for this purpose, which is cheap enough, but is
> it the best compromise for what I am trying to achieve? Your
> assistance would be most welcome.
> Mark

1817. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 16:42:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <igvqb1lfdmgrpphodje7oo58p24c3msbo4@4ax.com>
Source record: 74283

On Sat, 25 Jun 2005 07:56:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:vptpb1dl52464l44vebachnu36do3jphbf@4ax.com...
>>You are in farm country where the annual rainfall is 835mm. Where the
>>mean temperature is 12.8ï¿½C. Where the soil is 20% sand, 65% silt, and
>>15% clay.
>>
>>What is the Conductivity in the 80M band?

Answer: 30 mS

>>You are in farm country where the annual rainfall is 360mm. Where the
>>mean temperature is 4.9ï¿½C. Where the soil is 65% sand, 20% silt, and
>>15% clay.
>>
>>What is the Conductivity in the 80M band?

Answer: 30 mS

>>You are in farm country where the annual rainfall is 790mm. Where the
>>mean temperature is 6.9ï¿½C. Where the soil is 31% sand, 33% silt, and
>>36% clay.
>>
>>What is the Conductivity in the 80M band?

Answer: 15 mS

>==========
>
>I don't know. And neither do you or anybody else.

Such answers above have been know for decades.

>If you DID know you would not have the foggiest idea what to do with
>the data anyway. I might!

You might? With emphasis too. Now if that isn't a firm declaration
to end the pursuit in "How to measure soil constants at HF." In
point of fact, you simply validate my premise:

>>Let's draw a chord between 3 soil samples to see how fruitless knowing
>>"How to measure soil constants at HF" really is

As you struggled on:
>There's missing data. You forgot the iron oxide content and soil permeability.

There is so much missing information as: What is it to an average of one skin depth in YOUR garden, old son?

To this point all method and no results. By contrast, Walt provided both, and his data shows a continuity to your pronouncement about the wavelength shortening of radials adjacent to the ground - something you proclaimed no antenna measurement could achieve.

Walt's method necessarily includes one skin depth (and more) that your scraping at the veneer of soil could never model. He doesn't have to worry about temperature, moisture, time of day, season, iron oxide content, or permeability - it comes free with the attempt and you don't have to haul mud into the kitchen. Do I hear John Cleese muttering something about the Bloody Obvious?

73's
Richard Clark, KB7QHC

1818. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 16:58:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c03rb1hlv5njcjfhjs11p6om53furmcg2j@4ax.com>
Source record: 74284

On Sat, 25 Jun 2005 09:02:04 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>One conceptual mistake that a lot of people make concerns
>the roll of free electrons in a transmission line.
Concepts indeed. Rolling free electrons.
How did Planck miss this one? I can visualize marbles cascading down
a quantum stairwell though. ;-)

1819. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 17:01:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9k2l1kdb1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74285

> > Nothing has changed since Oliver Heaviside, 1875 - 1925.
> >
> > If anybody mentions G5RV I shall cry.
> > ----
> > Reg, G4FGQ
> >
>
> G5RV
> 73,
> Tom Donaly, KA6RUH

==========

Bwwaaaaaaaaaaaaaa

Thanks Tom, I feel better now.

Reg.

1820. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 17:25:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1a3rb114r0nkosv6f4nl82phmf3u9dnaq2@4ax.com>
Source record: 74286

On Sat, 25 Jun 2005 10:10:51 GMT, ml <m@di.net> wrote:

>regarding your being so firm saying that rf is typically just
>conventional physics, I dunno..
>who says it's confirmed to our space??

Hi Myles,

He showed it to a precision of 34 places. Do you need more?

>we are only just begining to see the possibilities that things in our
>deminsion/ or time "e space" do in fact have relationships with 'other
>' things, some of which might be having effects out of phase, 'time' or
>having somthing corresponding in another dimension so to speak (for
>example)

If by we, you mean astronomers, and if by things, you mean galaxies.
This is where 34 places begins to add up to serious values, like a
boost of 1 MPH acceleration averaged over 100 quadrillion stars. Hold
the key down on your amplified transmitter for a century, and your
antenna might create as much thrust pressure that a snail expends in a
femtosecond. If quantum effects were significant, then the weight of
one more microbe from a nearby sneeze would immediately crush you as
much as the added burden of Atlas.

>it's not unfathomable to think that the sum of our current knowledge
>might no be infinate, perhaps we've simply failed to measure ? who
>knows what tomorrows proved new theories will bring?

Who knew that Flying machines would move millions of people?
Certainly not Plato, but knowing it then wouldn't upgrade his seat to
first class now.

>already here waves(rf) conventional were compared to photonic
>'energy'(now thats something few can understand alone) and those photos
>do some really strange things w/regards to the above (even more strange)

Strange? Only the way Cecil describes it. You may have as well
studied drug abstinence from Elvis.

73's
Richard Clark, KB7QHC

1821. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 17:43:54 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <FOydnaOEZ61hCiDfRVn-hQ@comcast.com>
Source record: 74287

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9iljglkv1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> I'm not quite clear what you are talking about, but the impedance seen
> looking into the feedpoint of a 1/2-wave resonant dipole when the
> feedpoint is at the centre, is a purely resistive 70 to 73 ohms.
>
> As the feedpoint is moved away from the centre the impedance rapidly
> increases (approximately proportional to the square of the offset) BUT
> REMAINS PURELY RESISTIVE until, as the feedpoint nears the end of the
> dipole, it rises to several thousand ohms, purely resistive.
>
> This is the impedance which terminates the twin feedline. But if there
> is a choke in the line at this point then the choke can be considered
> to be a short length of line of the same length and Zo as is wound on
> the choke.
>
> The short length of line on the choke will then TRANSFORM the antenna
> input impedance to a somwhat different value to terminate the line.
> (For the purpose of calculating SWR on the line, and the line's input
> impedance, etc.)
>
> Now carry on from there. ;o)
> ----
> Reg, G4FGQ

Thanks, Reg, for sharpening up the picture on off-center feeding of a wire antenna. And thanks, Roy for bringing out the likelihood of asymmetrical coupling to the off-center feedline and the difficulties that can result.

73, Chuck W6PKP

1822. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 18:34:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9k839$645$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74288

Roy, surely you realise that all depends on soil conductivity and
permittivity which B, L & E forgot to determine before leaving the
site.

30 years previously, around 1905, Sommerfeld (and others) had produced
a significant report showing the importance of ground characteristics
on radiation and propagation at LF and below. Which B, L, & E ought
to have been aware of if they had known what they were about.

You should concentrate your thoughts on HF and above, not on LF and
VLF distractions. Different characteristics prevail at HF at which
frequencies amateurs are most concerned.

Reg

1823. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 19:18:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gharb1peioncml2um5b4kqi6k0c6btdb5d@4ax.com>
Source record: 74290

Reggie,

The following is so full of glaring contradictions - well, you can
rely on me to point them out. :-)

On Sat, 25 Jun 2005 18:34:17 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Roy, surely you realise that all depends on soil conductivity and
>permittivity which B, L & E forgot to determine before leaving the
>site.

You have thoroughly refuted any intimate knowledge of their paper, it
goes unread by you, and yet you "know" this for a fact. Or perhaps
that is elevating your prose upon to an unwarranted pedestal.

>30 years previously, around 1905, Sommerfeld (and others) had produced
>a significant report showing the importance of ground characteristics
>on radiation and propagation at LF and below. Which B, L, & E ought
>to have been aware of if they had known what they were about.

However, your earlier reference to LF from Sommerfeld (and others) is
then wholly negated by you with:
>You should concentrate your thoughts on HF and above, not on LF and
>VLF distractions. Different characteristics prevail at HF at which
>frequencies amateurs are most concerned.

Back in 1905, they called the frequencies above 1MHz VHF....

So, our trio, B,L, & E could just as easily had dismissed this work as
you have? Such legerdemain.

Sir Kelvinator asks, "Got any data, Reggie?"

This quality of fence sitting - arguing both sides against the middle
- is classic Punchinello.

73's
Richard Clark, KB7QHC

1824. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 19:18:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11brbg08ffamv2b@corp.supernews.com>
Source record: 74289

Reg Edwards wrote:
> Roy, surely you realise that all depends on soil conductivity and
> permittivity which B, L & E forgot to determine before leaving the
> site.

It just isn't sinking in, is it? It depends on the conductivity and permittivity to a skin depth or more, which was impossible for them to determine. A surface measurement wouldn't have provided the necessary information. Measurement of ground wave attenuation to another location would have included ground with a variety of possible characteristics different from those in the immediate vicinity.

> 30 years previously, around 1905, Sommerfeld (and others) had produced
> a significant report showing the importance of ground characteristics
> on radiation and propagation at LF and below. Which B, L, & E ought
> to have been aware of if they had known what they were about.

I'm sure they were. But the paper has nothing to do with propagation. What makes you think it does?

They certainly did know about the effect of conductivity. In a theoretical analysis at the beginning of their paper they calculated expected radial ground currents for several different ground conductivities, and explain how current is distributed in the ground with conductivity being a factor. The radial ground current analysis was later found to be in error(*), but it's still considerably closer than the results I've seen from your analysis and program.

> You should concentrate your thoughts on HF and above, not on LF and
> VLF distractions. Different characteristics prevail at HF at which
> frequencies amateurs are most concerned.

That's a bizarre admonition from someone constantly harping about how many radials American AM broadcasters use. I am indeed most interested in HF, where skin depth is on the order of 12 feet for average soil, and measurement of surface conductivity and permittivity is pretty useless. Incidentally, since you haven't read their paper, you probably don't know that the BL & E measurements were done at 3 MHz, which is HF.

(*) To my knowledge, no one has developed a method of calculating radial currents or ground system losses with even approximate accuracy other than with numerical analysis such as used by NEC-4. Many years ago I spent a couple of years of spare time in a technical library looking for just such an analysis without success. Reg's method is delightfully simple but gives results which are very wrong.

Roy Lewallen, W7EL

1825. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 19:21:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bdafa9$1_2@spool9-west.superfeed.net>
Source record: 74291

Richard Clark wrote:
> On Sat, 25 Jun 2005 09:02:04 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>One conceptual mistake that a lot of people make concerns
>>the roll of free electrons in a transmission line.
>
> Concepts indeed. Rolling free electrons.
> How did Planck miss this one? I can visualize marbles cascading down
> a quantum stairwell though. ;-)

Once again, the Netscape spellchecker fails to catch the typo.

I have an inherited palsy as did my father and as does my sister.
My sister has had electrodes implanted in her brain to try to
control it but she, like I, still has a lot of trouble typing.
It takes me five times as long to compose an acceptable posting
as the average person because of all the double and triple entries.

I sincerely appologize that my physical handicap has exposed your
psychological tendency to make fun of the misfortunes of others.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1826. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 19:22:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bdaff8$1_2@spool9-west.superfeed.net>
Source record: 74292

Reg Edwards wrote:

>>>If anybody mentions G5RV I shall cry.

>>G5RV

> Bwwaaaaaaaaaaaaaa
> Thanks Tom, I feel better now.

Reg, you know you mentioned G5RV first. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1827. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 19:40:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tlbrb1t864b80hrm67rcagkeau7smsivmr@4ax.com>
Source record: 74293

On Sat, 25 Jun 2005 14:21:19 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I sincerely appologize that my physical handicap has exposed your
>psychological tendency to make fun of the misfortunes of others.
No, yours is not an appology - as you well know. Your hand at irony
is firmly intact as all may notice in this cheap play with the
sympathy card.

1828. Re: 28mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 20:09:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <URive.29$DC.8942736@news.sisna.com>
Source record: 74294

Yes, that is a really good rant...

I can almost imagine the truckers upgrading linears now... I hope that was your true intent--it is hard to imagine anyone would think it would inspire different...

John

"KI4CER" <qikcomget@yahoo.com> wrote in message news:1119677469.165116.283260@o13g2000cwo.googlegroups.com...
>I have never seen a bigger bunch of crap than the crap posted on this
> sight.I didn't see one call sign on the entire message post.The stuff
> listed (and all it was was stuff)meant nothing to no one.sounds like
> to
> me a bunch of wan a be's.Well don't let me catch you talking on
> 28mhz's
> if you don't have a valid F.C.C. certificate of issue.I live to smight
> the wicked truckerness on 28mhz.I run the full legal limit and our GOD
> HOLY RILEY HOLLINGSWORTH hath given me the power to smight thy
> truckerness and thy lewdness,and there ain't a damn thing you can do
> about it.So I will look foward to warming up my equipment and standing
> guard waiting for one peep from an un licenced asshole.Get the
> message???????KI4CER
>

1829. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 20:35:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bdc121$1_2@spool9-west.superfeed.net>
Source record: 74295

Richard Clark wrote:
> On Sat, 25 Jun 2005 14:21:19 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>I sincerely appologize that my physical handicap has exposed your
>>psychological tendency to make fun of the misfortunes of others.
>
> No, yours is not an appology - as you well know. Your hand at irony
> is firmly intact as all may notice in this cheap play with the
> sympathy card.

Care to see a picture of my sister's shaved head after surgery?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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1830. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 21:20:35 UTC
From: "Richard W. Solomon, W1KSZ" <w1ksz@earthlink.net>
Message-ID: <rjirb112kt4m0ooogpsos4b049bk2qcuhh@4ax.com>
Source record: 74296

RG-58 ??
You might as well bury the antenna in the ground !! That is the worst
stuff you can use.

First, How long a run do you need ?
Second, What is the connector required on each end ?

73, Dick, W1KSZ

On Sat, 25 Jun 2005 11:19:42 +0200, Mark <Mark@> wrote:

>Please could somebody tell me the best cable (compromise between cost
>and loss) for use with an external Yagi antenna connected to a mobile
>phone. I live in a Very poor reception area, and I need to fit an
>external antenna. I have found somewhere that sells 10 element Yagi's,
>and I can mount the thing as high as need be, but I read somewhere
>that the longer the connecting cable, can negate the benefits of long
>mounting poles. I have freinds in the surrounding area that have the
>same problem, so I could do with a "rule of thumb" that I can use for
>fitting these things. The shop where I got the antenna from is
>offering me RG58 cable for this purpose, which is cheap enough, but is
>it the best compromise for what I am trying to achieve? Your
>assistance would be most welcome.
>Mark

1831. I was requested to post the following...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 21:28:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <V%jve.31$fR.9627778@news.sisna.com>
Source record: 74303

The email requesting me to make this post follows:

The following post was not posted by me.
the person who claims to be me is a very childish individual that has
never left their mothers apron.
Please post this in the USENET groups, as I am not a member.
If any of you know how to trace this post back to the source please
email me at kf4vgx@hotmail.com

73 John

> I'm just a lonely ham. Nobody wants to play radio
> with me. Please e-mail me. I'm tired of emailing
> myself, it's no fun anymore.
>
> Johnny Williams
> kf4vgx@sc.rr.com
>

1832. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 21:40:50 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <lakve.6709$Bm.4198@bignews5.bellsouth.net>
Source record: 74297

This may well be an application for a passive repeater.
2 yagis back to back
one aimed at the nearest tower
the other aimed at your house.
mount it high

"Mark" <Mark@> wrote in message
news:et7qb1la2lr29hpnu0741kv79ii9ecj2c8@4ax.com...
> Please could somebody tell me the best cable (compromise between cost
> and loss) for use with an external Yagi antenna connected to a mobile
> phone. I live in a Very poor reception area, and I need to fit an
> external antenna. I have found somewhere that sells 10 element Yagi's,
> and I can mount the thing as high as need be, but I read somewhere
> that the longer the connecting cable, can negate the benefits of long
> mounting poles. I have freinds in the surrounding area that have the
> same problem, so I could do with a "rule of thumb" that I can use for
> fitting these things. The shop where I got the antenna from is
> offering me RG58 cable for this purpose, which is cheap enough, but is
> it the best compromise for what I am trying to achieve? Your
> assistance would be most welcome.
> Mark

1833. Re: How to measure soil constants at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 21:46:39 UTC
From: richardharrison@webtv.net
Message-ID: <20797-42BDD0BF-27@storefull-3251.bay.webtv.net>
Source record: 74298

I wrote:
"Another (option) would be to find some curves which have already been constructed."

Found some curves in Pete Saveskie`s "Radio Propagation Handbook" on pages 15, 17, and 19. They are from CCIR and may be available from them. They are for field strengths over sea water, good earth, and poor earth at 16 frequencies from 100 KHz to 10 MHZ.

Best regards, Richard Harrison, KB5WZI

1834. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 22:07:48 UTC
From: Owen <none@no.where>
Message-ID: <UAkve.3946$oJ.3335@news-server.bigpond.net.au>
Source record: 74299

Roy Lewallen wrote:
> Chuck Olson wrote:
>
>>
>> Hi, Larry,
>>
>> An off-center fed antenna doesn't necessarily produce unbalanced feeder
>> currents - -
>
>
> I'm sorry to say, it does. There's coupling from the feedline to each
> side of the antenna, and unlike a symmetrical dipole with feedline at
> right angles, the coupling from each side is unequal. This results in
> unbalanced feeder currents. If the feedline is twinlead or open wire
> line, this shows up as unequal currents on the two conductors. On coax
> it manifests itself as current on the outside of the shield. In both
> cases, the result is the same -- feedline radiation.
>
> This can be shown quite dramatically by simple modeling. I've also seen
> it myself by direct measurement(*). A current balun (NOT voltage balun)
> at the feedpoint will reduce the conducted common mode current just as
> it will with a dipole, but you still have to deal with common mode
> current due to coupling. Depending on the frequency and the feedline
> length and orientation, you might get lucky and not have too much
> feedline current. On the other hand, it can be bad enough to aggravate
> RFI problems if the feedline is routed near power or telephone lines, or
> cause trouble with your rig or shack accessories.
>
> > just a different feeding impedance level, which he will no
>
>> doubt take care of with a tuner or a 4:1 ratio in the balun if single
>> band
>> use is all he wants and he can find the right spot for the feeder. Of
>> course
>> the balun takes care of any unbalance that might be due to the feeder
>> not making a 90 degree angle with the antenna. There's nothing wrong
>> with his idea.
>
>
> See above comments. Routing the feeder at right angles to the antenna
> doesn't eliminate current due to mutual coupling, and neither does a
> feedpoint balun.
>

Roy, doesn't this suggest that there is benefit in twisting an open wire feedline to attempt to expose each conductor to similar coupling to the external fields. Clearly the benefit will be better for a higher twist rate. Whilst achieving sufficient twist rate with a wide air-spaced line may be impractical, it is probably quite realisable with ladder line (notwithstanding the downsides of ladder line).

I suspect there is not much one could do to minimise the effects of current on a coax shield other than placement of ferrite suppression sleeves or loops in the coax at several places on the feedline to spoil resonances in much the same way as one would try to prevent parasitic excitation of a guy wire by breaking into non-resonant lengths with insulators.

Owen

1835. Pizza, New Great-Circle Plotting Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 22:12:13 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <90lrb1p949i59dv4la1bdm5lnid1tk74tq@4ax.com>
Source record: 74300
Cross-posted to:
rec.radio.amateur.antenna;,rec.radio.amateur.boatanchors;,rec.radio.amateur.dx;,rec.radio.amateur.space;,rec.radio.shortwave

A friend of mine, Jim Tonne, WB6BLD, has written a much-improved, Windows version of a classic great-circle plotting program and is providing it to the Amateur Radio community FOR FREE.

If you are a DX'er and need an antenna-bearing aid or just like to poke around on the earth's geography, this program will be of interest to you.

It calculates the bearing and distance from a Home location to a Target location anywhere in the world and displays this result on both azimuthal (polar) and rectangular maps. Both the Home and Target locations may be selected by mouse designations on the rectangular world map or chosen from a menu of cities, countries and callsign areas. The Maidenhead grid system is fully supported on both data-entry and readout. Sun and terminator positions are plotted on both maps in real time from the host computer clock, enabled by a menu selection. Both maps use an accurate, high-resolution, up-to-date geographic database. The azimuth map may be plotted at five different resolutions, allowing an optimum mix of accuracy and computation speed. Additionally, the azimuth plot may be repeatedly zoomed-in or out by a factor of 2 to place both Home and Target on-screen. Bearing and range overlays are provided in the azimuth plot, making it suitable for a printed-out beam-heading chart.

Both the polar and rectangular plots are printed to the standard Windows printer, no special drivers are needed. System requirements are a Pentium processor (P4 recommended), Windows 98, ME, 2000, XP, and 4.8 Megabytes of free disk space.

The download installation file size is 2.5 Megabytes. The program download URL is:

http://tonnesoftware.com/pizzadownload.html

There are other programs out there that perform this same calculation, but none with the combination of features Pizza offers.

Oh, yeah, that name. Bring up an azimuth plot of the entire world and it hits you in the eye like a big pizza pie -- that's amorï¿½!

Jim, K7JEB

1836. Re: Using the matchbox

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 22:15:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <2rlrb1ljquvan08cmimqi6p33g87a7fuec@4ax.com>
Source record: 74301

On Fri, 24 Jun 2005 23:40:45 -0400, Buck <iam@this.site> wrote:

>On Thu, 23 Jun 2005 15:06:33 -0700, Wes Stewart <n7ws_@*yahoo.com>
>wrote:
>
>>On 23 Jun 2005 12:29:51 -0700, "Brian Kelly" <kelly@dvol.com> wrote:
>
>>>Inductors are lossy. Capacitors are not. Use the tuner settings which
>>>provide a 2:1 VSWR match or better with the least possible amount of
>>>inductance. In other words use the least amount of inductance you can
>>>get away with.
>>
>
>>First all should note that this is a pi-network. Suggestions to use
>>an MFJ (tee-network) tuning procedure are wrong.
>>
>>Here is a random example made up on the spur of the moment.
>>
>>Assume the load is 20 +j50 @ 14 MHz. SWR = 5.2
>>
>>Also assume that the tuning capacitor(s) Q = 500 and the inductor Q =
>>200, both typical values.
>>
>>A nearly optimum solution, from a match and loss standpoint is:
>>
>>Cin = 140.3 pF, L = .958 uH, Cout = 333.6 pF.
>>
>>The input z = 49.69 +j0.03 or SWR = 1.006 , Loss = 0.09 dB.
>>
>>Now, let's force the inductance to a lower value.
>>
>>Cin = 422 pF, L = 0.67 uH, Cout = 471.3 pF.
>>
>>The input Z = 49.6 -j0.04 or SWR = 1.008 but the loss = 0.18 dB.
>>
>>The loss doubled when the inductance was lowered.
>>
>>All of this is easily calculated using a free tool: XLZIZL.xls.
>>
>
>Does anyone know what kind of network is in the TenTec 247?
>
>I have one and noticed it will tune most bands with three different
>inductance settings.

There might be some info at the vintage ten-tec site,
http://www.qsl.net/tentec/

bob
k5qwg

1837. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-25 22:47:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11brno2m7vmjg99@corp.supernews.com>
Source record: 74302

Owen wrote:
> Roy Lewallen wrote:
>>. . .
>> See above comments. Routing the feeder at right angles to the antenna
>> doesn't eliminate current due to mutual coupling, and neither does a
>> feedpoint balun.
>>
>
> Roy, doesn't this suggest that there is benefit in twisting an open wire
> feedline to attempt to expose each conductor to similar coupling to the
> external fields. Clearly the benefit will be better for a higher twist
> rate. Whilst achieving sufficient twist rate with a wide air-spaced line
> may be impractical, it is probably quite realisable with ladder line
> (notwithstanding the downsides of ladder line).

No. The problem isn't that the coupling is different to each conductor of the transmission line, it's that the coupling is different from the transmission line to each side of the antenna. Twisting the line won't change the coupling of this common mode current by any appreciable amount. Unfortunately.

> I suspect there is not much one could do to minimise the effects of
> current on a coax shield other than placement of ferrite suppression
> sleeves or loops in the coax at several places on the feedline to spoil
> resonances in much the same way as one would try to prevent parasitic
> excitation of a guy wire by breaking into non-resonant lengths with
> insulators.

The problem is exactly the same for coax and for two-wire line, and the solution is the same for both -- common mode chokes (current baluns) spaced about a quarter wavelength apart to break up resonances. In practice, implementation is usually easier with coax.

Roy Lewallen, W7EL

1838. Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 00:37:26 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <aNmve.46$Rj1.11104383@news.sisna.com>
Source record: 74304
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

I am sure that everyone here has noticed there is much too much attention paid to where posts originate from. And, there are childish personalities which look up where you are posting from--some with malicious intent...

This URL will provide you with a means to be anonymous:
http://www.antifirewall.com/news.htm

This should allow everyone to put a stop to this bad behavior.

John

1839. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 01:02:18 UTC
From: bb <billybeeper@juno.com>
Message-ID: <1119747738.926814.292740@g47g2000cwa.googlegroups.com>
Source record: 74305
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

John Smith wrote:
> I am sure that everyone here has noticed there is much too much
> attention paid to where posts originate from. And, there are childish
> personalities which look up where you are posting from--some with
> malicious intent...
>
> This URL will provide you with a means to be anonymous:
> http://www.antifirewall.com/news.htm
>
> This should allow everyone to put a stop to this bad behavior.
>
> John

Yeh, I really don't like Robeson posting snippets of my address or
talking about my family.

1840. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 01:09:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <_enve.47$dt1.11443224@news.sisna.com>
Source record: 74306
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

bb:

Well, antifirewall has a trial period...

But, it should help you become familiar with the method to be able to
set this up using other methods which are free...

John

"bb" <billybeeper@juno.com> wrote in message
news:1119747738.926814.292740@g47g2000cwa.googlegroups.com...
>
>
> John Smith wrote:
>> I am sure that everyone here has noticed there is much too much
>> attention paid to where posts originate from. And, there are
>> childish
>> personalities which look up where you are posting from--some with
>> malicious intent...
>>
>> This URL will provide you with a means to be anonymous:
>> http://www.antifirewall.com/news.htm
>>
>> This should allow everyone to put a stop to this bad behavior.
>>
>> John
>
> Yeh, I really don't like Robeson posting snippets of my address or
> talking about my family.
>

1841. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 02:53:00 UTC
From: richardharrison@webtv.net
Message-ID: <8199-42BE188C-328@storefull-3257.bay.webtv.net>
Source record: 74308

Look at the title of this thread. Why slosh?

Transmission lines are used to convey energy, and at high frequencies they serve as resonant circuits, measuring devices, and impedance matching sections.

Viltage and current at any point on a transmission line is expressed as the sum of the voltages and currents of two waves, one traveking forward toward the load (the incident wave) and one reflected from the load (the reflected or reverse wave).

The reflected wave consists of energy from the wave traveling toward the load which is rejected by the load becausse the voltage to current ratio does not fit the only voltage to current ratio the load can accept, its impedance, perhaps a complex value.

All energy in the wave traveling toward the load and all energy traveling away from the load (the opposite travel direction) must conform to the absolute value of the line`s characteristic impedance (Zo).

Phase of the reflected current traveling back toward the generator is given a negative sign because the reflected wave is traveling in the reverse direction from the forward wave which travels toward the load. (See page 86 in the 1955 edition of Terman.

Phase of the reflected current traveling toward the generator is everywhere proportional but out of phase with reflected voltage. The reflected voltage to current ratio is: -Zo.

Actual voltage across the load is the sum of the incident and reflected voltages. Actual current through the load is the sum of the incident and reflected currents. The vector ratio of load voltage to load current must equal the load impedance which may be a complex value.

The vector ratio of incident voltage to treflected voltage at the load is called the reflection coefficient of the load. It may be obtained from forward and reverse powers at the load. I have a special slide rule given me by the Bird wattmeter people to convert wattmeter forward and reverse indications into a reflection coefficient or an SWR.

The transmission line and its load completely control the volts and amps everywhere in the system driven by a certain generator. There are no renegade volts and amps sloshing around. The idea is preposterous.

Best regards, Richard Harrison, KB5WZI

1842. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 02:59:39 UTC
From: Holly <HotDamn@nospam>
Message-ID: <d9l5lf$4sg$0@pita.alt.net>
Source record: 74307
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

"bb" <billybeeper@juno.com> wrote in message
news:1119747738.926814.292740@g47g2000cwa.googlegroups.com...

John Smith wrote:
> I am sure that everyone here has noticed there is much too much
> attention paid to where posts originate from. And, there are childish
> personalities which look up where you are posting from--some with
> malicious intent...
>
> This URL will provide you with a means to be anonymous:
> http://www.antifirewall.com/news.htm
>
> This should allow everyone to put a stop to this bad behavior.
>
> John

Yeh, I really don't like Robeson posting snippets of my address or
talking about my family.

//

Of course it never dawned on you to simply ignore him, did it?
Besides, we all know you live on Longview Street.

1843. AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 05:04:05 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11bsdqpir7o54fa@news.supernews.com>
Source record: 74309
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
2M9SSB beam antenna at 90 ft.
The difference from antennas at around 30 ft to the same antennas at 90-95
ft is astonishing. Anyone considering raising their antennas should "just
do it"

1. http://deepsouthnet.net/tower.html

I am founder and net control for the Deep South 2 Meter SSB Net located in
Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240 MHz
USB. We have 10-15 or more check-ins nightly with 38 on our All Time Total
Roster and nearly 25 on our Active Roster! The net has grown from it's
first Roll Call on April 8,2005 at an amazing rate.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

1844. Solarcon A99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 11:31:06 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373837383542BEA00A47@zetnet.co.uk>
Source record: 74310

Hi All, Anyone got a link to a schematic for the A99. I'm blowed if I can find how the wire terminates into the top collar. What I did find was a solder blob on the collar, thinking Aha thats where the wire termminates, but NO. Any idea's appreciated. TIA Dave.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

1845. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 11:47:14 UTC
From: "Joe S." <nobody@nowhere.net>
Message-ID: <d9m4jr02tvu@news4.newsguy.com>
Source record: 74311
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Charlie" <charlie@earthlink.com> wrote in message
news:11bsdqpir7o54fa@news.supernews.com...
> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
> 2M9SSB beam antenna at 90 ft.
> The difference from antennas at around 30 ft to the same antennas at 90-95
> ft is astonishing. Anyone considering raising their antennas should "just
> do it"
>
> 1. http://deepsouthnet.net/tower.html
>
> I am founder and net control for the Deep South 2 Meter SSB Net located in
> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240
MHz
> USB. We have 10-15 or more check-ins nightly with 38 on our All Time
Total
> Roster and nearly 25 on our Active Roster! The net has grown from it's
> first Roll Call on April 8,2005 at an amazing rate.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>
>

Do I understand that the guy wires terminate to trees? Is that a permanent
arrangement?

--

Joe S.

1846. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 12:26:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42be9ffe$1_2@spool9-west.superfeed.net>
Source record: 74312

Richard Harrison wrote:
> There are no
> renegade volts and amps sloshing around. The idea is preposterous.

Thanks for all your statements of the laws of
physics embodied in the wave reflection model.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1847. Re: re ian/Re: rich and Cecil momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 12:48:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bea52f$1_1@spool9-west.superfeed.net>
Source record: 74313

Richard Clark wrote:
> No, yours is not an appology - as you well know. Your hand at irony
> is firmly intact as all may notice in this cheap play with the
> sympathy card.

The devil made me do it, Richard. I just couldn't resist a
cheap shot at the resident cheap shot artist. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1848. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 12:50:59 UTC
From: Dave <noone@nowhere.com>
Message-ID: <2rGdncP__JZdOSPfRVn-1w@crocker.com>
Source record: 74314
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

how many sins can i count...
1. guyed to trees
2. guyed to power pole
3. saddled lots of dead horses
4. two different tower types mixed
5. doesn't look like a proper base... at least not to rohn specs.
6. that mast sure does look too long above the kind of tiny tube top.
7. no thrust bearing
8. too close to power line? probably since its guyed to a power pole.

"Charlie" <charlie@earthlink.com> wrote in message
news:11bsdqpir7o54fa@news.supernews.com...
> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
> 2M9SSB beam antenna at 90 ft.
> The difference from antennas at around 30 ft to the same antennas at 90-95
> ft is astonishing. Anyone considering raising their antennas should "just
> do it"
>
> 1. http://deepsouthnet.net/tower.html
>
> I am founder and net control for the Deep South 2 Meter SSB Net located in
> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240
> MHz USB. We have 10-15 or more check-ins nightly with 38 on our All Time
> Total Roster and nearly 25 on our Active Roster! The net has grown
> from it's first Roll Call on April 8,2005 at an amazing rate.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>
>

1849. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 12:57:12 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ve9tb1t718kd30u25gtc2nfp24c5gq41v9@4ax.com>
Source record: 74315

On Sun, 26 Jun 2005 06:47:14 -0500, "Joe S." <nobody@nowhere.net>
wrote:

>
>
>"Charlie" <charlie@earthlink.com> wrote in message
>news:11bsdqpir7o54fa@news.supernews.com...
>> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
>> 2M9SSB beam antenna at 90 ft.
>> The difference from antennas at around 30 ft to the same antennas at 90-95
>> ft is astonishing. Anyone considering raising their antennas should "just
>> do it"
>>
>> 1. http://deepsouthnet.net/tower.html
>>
>> I am founder and net control for the Deep South 2 Meter SSB Net located in
>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240
>MHz
>> USB. We have 10-15 or more check-ins nightly with 38 on our All Time
>Total
>> Roster and nearly 25 on our Active Roster! The net has grown from it's
>> first Roll Call on April 8,2005 at an amazing rate.
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>>
>>
>>
>>
>>
>>
>
>Do I understand that the guy wires terminate to trees? Is that a permanent
>arrangement?

Also, do the steel bands allow for the expansion of the tree trunk?
Them things do grow...

bob
k5qwg

1850. Re: Pizza, New Great-Circle Plotting Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 13:03:12 UTC
From: CAM <w5dxp@arrl.net>
Message-ID: <1119790992.821564.264980@z14g2000cwz.googlegroups.com>
Source record: 74316
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave

K7JEB wrote:
> Oh, yeah, that name. Bring up an azimuth plot of the
> entire world and it hits you in the eye like a big
> pizza pie -- that's amoré!

Just don't expect to find it by doing a web search
for "pizza". :-)
--
73, Cecil http://www.qsl.net/w5dxp

1851. Early MW Field Measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 13:06:56 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42bea8cd_2@newsfeed.slurp.net>
Source record: 74317

Reg wrote:
> Walt, did you measure ground conductivity and permittivity?
> Or did you forget like messrs B, L & E.

Wasn't this measurement sequence made close enough to the radiators so that ground conditions were unimportant? The need was to establish the "efficiency" (note) of medium-wave radiators of various heights with ground systems of various configurations to use as a basis for an allocations plan for commercial MW broadcasting. The FCC reviewed and adopted it, and it has served quite well as such for many decades now.

From reading his publications it can be seen that George Brown was a meticulously careful engineer. It is unlikely that he would "forget" anything that was germane to the purpose of this study.

Note: Efficiency in this case meaning the horizontal plane field intensity
at distances close enough to the vertical radiator that ground conditions
and earth curvature can be ignored.

RF

1852. Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 13:37:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74318

A choke balun is what is inserted between the transmitter end of the antenna feedline and the transmitte tuner. Or it can be inserted at the antenna end of the line.

Questions : How effective is it? To what extent can the percentage unbalance current on the feedline be expected to be reduced? Has anybody ever measured it before and after insertion?

Reg.

1853. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 13:53:35 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42beb22b.4515032@news.crosslink.net>
Source record: 74319

On Sat, 25 Jun 2005 21:53:00 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>The reflected wave consists of energy from the wave traveling toward the >load which is rejected by the load becausse the voltage to current ratio >does not fit the only voltage to current ratio the load can accept, its >impedance, perhaps a complex value.

Dear Richard,

Aside from some easily correctable typos, your posting is very readable and cogent. The above paragraph, however, has a rather difficult to understand ending, and I'm hoping you will review it and provide more readable wording.
Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

1854. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 15:13:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ACzve.9$DI.332926@news.sisna.com>
Source record: 74321

Reg:

I can comment on my recent experiments with a half-wave vertical on
10-11 meters.

A current balun (or ferrite beads on the coax) greatly reduce feedline
radiation--seems to have an overall beneficial effects on the antennas
radiation pattern--and seems to "stabilize" the pruning/tuning of the
antenna (things begin behaving in a linear and logical way.)

Mind you, the above is only deduced/measured with a FSM, SWR bridge (of
the type which does NOT work for real measurement of swr but rather
transmitter loading) and observed/known signals from other stations and
the reports given back on my signal from these stations.

While this may be viewed as "crude" by some--it is real world in that
the effects as least "seem" real.

Or, the short form of all this is, "The Current Balun is my friend!"

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>A choke balun is what is inserted between the transmitter end of the
> antenna feedline and the transmitte tuner. Or it can be inserted at
> the antenna end of the line.
>
> Questions : How effective is it? To what extent can the percentage
> unbalance current on the feedline be expected to be reduced? Has
> anybody ever measured it before and after insertion?
> ----
> Reg.
>
>

1855. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 15:40:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <U%zve.10$R41.415864@news.sisna.com>
Source record: 74320

... I should have pointed out, always, the balun has been inserted at the antenna, and never at the transmitter end of the coax in my previous post...

John

"John Smith" <assemblywizard@gmail.com> wrote in message news:ACzve.9$Dl.332926@news.sisna.com...
> Reg:
>
> I can comment on my recent experiments with a half-wave vertical on
> 10-11 meters.
>
> A current balun (or ferrite beads on the coax) greatly reduce feedline
> radiation--seems to have an overall beneficial effects on the antennas
> radiation pattern--and seems to "stabilize" the pruning/tuning of the
> antenna (things begin behaving in a linear and logical way.)
>
> Mind you, the above is only deduced/measured with a FSM, SWR bridge
> (of the type which does NOT work for real measurement of swr but
> rather transmitter loading) and observed/known signals from other
> stations and the reports given back on my signal from these stations.
>
> While this may be viewed as "crude" by some--it is real world in that
> the effects as least "seem" real.
>
> Or, the short form of all this is, "The Current Balun is my friend!"
>
> John
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>>A choke balun is what is inserted between the transmitter end of the
>> antenna feedline and the transmitte tuner. Or it can be inserted at
>> the antenna end of the line.
>>
>> Questions : How effective is it? To what extent can the percentage
>> unbalance current on the feedline be expected to be reduced? Has
>> anybody ever measured it before and after insertion?
>> ----
>> Reg.
>>
>>
>

1856. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 16:04:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <SmAve.12$p6.310300@news.sisna.com>
Source record: 74322

... yes, I am known to reply to my own posts--far too often...

From all the current baluns I have tried, and I have tried every type I could find, this choke/balun design is my favorite and seems to have the lowest insertion loss of all and seems to exhibit excellent qualities of the type desired:
http://home.datacomm.ch/hb9abx/pactor-e-choke.htm

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:U%zve.10$R41.415864@news.sisna.com...
> ... I should have pointed out, always, the balun has been inserted at
> the antenna, and never at the transmitter end of the coax in my
> previous post...
>
> John
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:ACzve.9$Dl.332926@news.sisna.com...
>> Reg:
>>
>> I can comment on my recent experiments with a half-wave vertical on
>> 10-11 meters.
>>
>> A current balun (or ferrite beads on the coax) greatly reduce
>> feedline radiation--seems to have an overall beneficial effects on
>> the antennas radiation pattern--and seems to "stabilize" the
>> pruning/tuning of the antenna (things begin behaving in a linear and
>> logical way.)
>>
>> Mind you, the above is only deduced/measured with a FSM, SWR bridge
>> (of the type which does NOT work for real measurement of swr but
>> rather transmitter loading) and observed/known signals from other
>> stations and the reports given back on my signal from these stations.
>>
>> While this may be viewed as "crude" by some--it is real world in that
>> the effects as least "seem" real.
>>
>> Or, the short form of all this is, "The Current Balun is my friend!"
>>
>> John
>>
>> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>> news:d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...

>>>A choke balun is what is inserted between the transmitter end of the
>>> antenna feedline and the transmitte tuner. Or it can be inserted at
>>> the antenna end of the line.
>>>
>>> Questions : How effective is it? To what extent can the percentage
>>> unbalance current on the feedline be expected to be reduced? Has
>>> anybody ever measured it before and after insertion?
>>> ----
>>> Reg.
>>>
>>>
>>
>

1857. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 16:49:33 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <E0Bve.17$8L.379969@news.sisna.com>
Source record: 74323

A very interesting analysis of this design can be found at:
http://www.w8ji.com/balun_single_core_41_analysis.htm

... for those who have not yet seen it.

John

"Chris Trask" <christrask@earthlink.net> wrote in message
news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...
> In recent days on the QRP-L mailing list, the following remarks
> were
> made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:
>
> "...it is impossible to build a 4:1 ratio current balun that
> uses two 1:1 baluns on a single core."
>
> and:
>
> "It's well established any balun made up of series / parallel
> transmission lines requires different voltages from the start
> to finish of each transmission line. "
>
> I have devised and modeled a 4:1 current balun using two 1:1 baluns on
> a
> single core, and have tested a fully functional prototype. The design
> can
> be built without any core, if so desired. The full disclosure of this
> design with all theory, references, and test results can be obtained
> from my
> web page at:
>
> http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
>
> The design proves beyond all reasonable doubt that the above
> statements to
> the contrary are, to put it mildly, gravely in error.
>
> Chris
>
> ,----------------------. High Performance Mixers and
> / What's all this \ Amplifiers for RF Communications
> / extinct stuff, anyhow? /
> \ _______,--------------' Chris Trask / N7ZWY
> _ |/ Principal Engineer
> oo\ Sonoran Radio Research

> (__)\ _ P.O. Box 25240
> \ \ .' `. Tempe, Arizona 85285-5240
> \ \ / \
> \ '" \ IEEE Senior Member #40274515
> . ( ) \
> '-|)__| :. \ Email: christrask@earthlink.net
> | | | | \ '. http://www.home.earthlink.net/~christrask
> c__; c__; '-..'>.__
>
> Graphics by Loek Frederiks
>
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>

1858. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 18:19:30 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ZjCve.9435$Bm.5818@bignews5.bellsouth.net>
Source record: 74324

The only thing I have against them (current baluns) is
They are heavy.
and cause the antenna to droop
lowering the height of the feedpoint.
Which is a good reason to put the balun near the radio and use balanced
feedline from there to the antenna
my 3.5 cents

"John Smith" <assemblywizard@gmail.com> wrote in message
news:SmAve.12$p6.310300@news.sisna.com...
> ... yes, I am known to reply to my own posts--far too often...
>
> From all the current baluns I have tried, and I have tried every type I
> could find, this choke/balun design is my favorite and seems to have the
> lowest insertion loss of all and seems to exhibit excellent qualities of
> the type desired:
> http://home.datacomm.ch/hb9abx/pactor-e-choke.htm
>
> John
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:U%zve.10$R41.415864@news.sisna.com...
> > ... I should have pointed out, always, the balun has been inserted at
> > the antenna, and never at the transmitter end of the coax in my
> > previous post...
> >
> > John
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:ACzve.9$Dl.332926@news.sisna.com...
> >> Reg:
> >>
> >> I can comment on my recent experiments with a half-wave vertical on
> >> 10-11 meters.
> >>
> >> A current balun (or ferrite beads on the coax) greatly reduce
> >> feedline radiation--seems to have an overall beneficial effects on
> >> the antennas radiation pattern--and seems to "stabilize" the
> >> pruning/tuning of the antenna (things begin behaving in a linear and
> >> logical way.)
> >>
> >> Mind you, the above is only deduced/measured with a FSM, SWR bridge
> >> (of the type which does NOT work for real measurement of swr but
> >> rather transmitter loading) and observed/known signals from other

> >> stations and the reports given back on my signal from these stations.
> >>
> >> While this may be viewed as "crude" by some--it is real world in that
> >> the effects as least "seem" real.
> >>
> >> Or, the short form of all this is, "The Current Balun is my friend!"
> >>
> >> John
> >>
> >> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> >> news:d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> >>>A choke balun is what is inserted between the transmitter end of the
> >>> antenna feedline and the transmitte tuner. Or it can be inserted at
> >>> the antenna end of the line.
> >>>
> >>> Questions : How effective is it? To what extent can the percentage
> >>> unbalance current on the feedline be expected to be reduced? Has
> >>> anybody ever measured it before and after insertion?
> >>> ----
> >>> Reg.
> >>>
> >>>
> >>
> >
>

1859. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 18:48:03 UTC
From: Dan Richardson <k6mhe>
Message-ID: <1rttb1po7mrncf72v5v2kf8f8pmco6b5c6@4ax.com>
Source record: 74225

On Sun, 26 Jun 2005 14:19:30 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>The only thing I have against them (current baluns) is
>They are heavy.
>and cause the antenna to droop
>lowering the height of the feedpoint.
>Which is a good reason to put the balun near the radio and use balanced
>feedline from there to the antenna
>my 3.5 cents

I just weighed 50 beads that are used in W2DU's balun and came up with
a whopping 4 ounces!

Yea, four ounces should cause one hell of a droop.<G>

73,
Danny, K6MHE

1860. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 19:04:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <U_Cve.34$yk5.736409@news.sisna.com>
Source record: 74231

Dan:
"Droop?"

Hmm, I have heard about that, brits may refer to it as "brewers droop?"
Or, maybe I am confused here...

However, problem only seems to occur when there are pints involved...
<grin>

John

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:1rttb1po7mrncf72v5v2kf8f8pmco6b5c6@4ax.com...
> On Sun, 26 Jun 2005 14:19:30 -0400, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
>>The only thing I have against them (current baluns) is
>>They are heavy.
>>and cause the antenna to droop
>>lowering the height of the feedpoint.
>>Which is a good reason to put the balun near the radio and use
>>balanced
>>feedline from there to the antenna
>>my 3.5 cents
>
>
> I just weighed 50 beads that are used in W2DU's balun and came up with
> a whopping 4 ounces!
>
> Yea, four ounces should cause one hell of a droop.<G>
>
> 73,
> Danny, K6MHE
>
>
>

1861. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 19:28:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bf02d0$1_1@spool9-west.superfeed.net>
Source record: 74226

Dan Richardson <k6mhe<at>arrl wrote:
> Yea, four ounces should cause one hell of a droop.<G>

Droop is like dB loss - it should be minimized at all costs. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1862. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 19:47:57 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11bu1k0evf54aff@news.supernews.com>
Source record: 74227
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Thank you all very much for your kindness and courtesy in responding to my post.
Typically those that berate others have significant problems with self esteem.

Oh..as for those "sins"...mine are already forgiven.
--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Joe S." <nobody@nowhere.net> wrote in message
news:d9m4jr02tvu@news4.newsguy.com...
>
>
> "Charlie" <charlie@earthlink.com> wrote in message
> news:11bsdqpir7o54fa@news.supernews.com...
>> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
>> 2M9SSB beam antenna at 90 ft.
>> The difference from antennas at around 30 ft to the same antennas at
>> 90-95
>> ft is astonishing. Anyone considering raising their antennas should
>> "just
>> do it"
>>
>> 1. http://deepsouthnet.net/tower.html
>>
>> I am founder and net control for the Deep South 2 Meter SSB Net located
>> in
>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240
> MHz
>> USB. We have 10-15 or more check-ins nightly with 38 on our All Time
> Total
>> Roster and nearly 25 on our Active Roster! The net has grown from
>> it's
>> first Roll Call on April 8,2005 at an amazing rate.
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH

>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
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>
> Do I understand that the guy wires terminate to trees? Is that a
> permanent
> arrangement?
>
> --
>
> -----
> Joe S.
>
>

1863. 2 greatest Antennas I have ever had

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 19:58:57 UTC
From: RoyaltyFreePhotoMart@gmail.com
Message-ID: <1119815937.147508.13610@o13g2000cwo.googlegroups.com>
Source record: 74228

I have 2 antennas that I an very happy with. These are by far the best preforming antennas I have ever owned.

The first is a 17 METER antenna unlike anything you have ever seen or heard of before.

It is a 17 METER half wave dipole that is constructed in the shape of the letter "C". I first saw this design in the former East German sector about a year after the Berlin wall came down. I happened upon a deserted East German military base that had this huge antenna farm. I thought about it for a number of years and then began experimenting with it...and came up with a real winned.

As I said, it is a half wave dipole that is constructed in the shape of the letter "C". The vertical part of the letter "C" is 1/4 wave length attached to a tree with couple screw-in ceramic standoff insulators I got at Home Depot. The upper and lower horizontal parts of the letter "C" and 1/8 wave length. You feed it in the middle of the vertical part of the letter "C" with 50 ohm coax. It is a perfect 1 to 1 match.

Now, this is the IMPORTANT PART and the secret of it's success. YOU MOUNT THE LOWER HORIZONTAL SECTION OF THE LETTER "C" SO THAT IT IS 24 INCHES OFF THE GROUND. This is extremely important because it give is a very low angle or radiation.

ALSO IMPORTANT. Construct this antenna with the largest gauge of stranded wire you can find. Go to the local hardware store and buy the thickest stranded wire you can get. Or, you can also use 1/8 or 3/8 copper tubing. You want to have as much surface area as possible

OK, the SECOND GREAT ANTENNA that I have is a Windom. Now, don't laugh, but this is the 10 thru 40 meter Windom THAT A GUY ON EBAY SELLS FOR $20. I have the thing 35 feet in the air. Feed it directly with 50 ohm coax.

The guy down the street has a G5RV (about $75 or $85) at 50 feet and a Force 12 vertical dipole (about $300) and it blows both of them away. I work stuff that he can't even hear. We both have similar equipment. And being in the same neighborhood, our locations are similar.

That Windom is the best $20 investment I ever made.

Bill Hansen

1864. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 20:00:05 UTC
From: Dave <noone@nowhere.com>
Message-ID: <6_6dncbhW4LOlCLfRVn-oA@crocker.com>
Source record: 74229
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

they may be forgiven, but that won't keep a tower in the air nor make it
safer to climb. those sins are things you should seriously look at
correcting as they all affect the strength and safety of your investment as
well as anyone working on it or playing near it.

"Charlie" <charlie@earthlink.com> wrote in message
news:11bu1k0evf54aff@news.supernews.com...
> Thank you all very much for your kindness and courtesy in responding to my
> post.
> Typically those that berate others have significant problems with self
> esteem.
>
> Oh..as for those "sins"...mine are already forgiven.
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>
> "Joe S." <nobody@nowhere.net> wrote in message
> news:d9m4jr02tvu@news4.newsguy.com...
>>
>>
>> "Charlie" <charlie@earthlink.com> wrote in message
>> news:11bsdqpir7o54fa@news.supernews.com...
>>> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
>>> 2M9SSB beam antenna at 90 ft.
>>> The difference from antennas at around 30 ft to the same antennas at
>>> 90-95
>>> ft is astonishing. Anyone considering raising their antennas should
>>> "just
>>> do it"
>>>
>>> 1. http://deepsouthnet.net/tower.html
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>>> I am founder and net control for the Deep South 2 Meter SSB Net located
>>> in

>>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240
>> MHz
>>> USB. We have 10-15 or more check-ins nightly with 38 on our All Time
>> Total
>>> Roster and nearly 25 on our Active Roster! The net has grown from
>>> it's
>>> first Roll Call on April 8,2005 at an amazing rate.
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>>> Ham Radio - AD5TH
>>> www.ad5th.com
>>> Deep South 2 Meter SSB Net
>>> www.deepsouthnet.net
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>> Do I understand that the guy wires terminate to trees? Is that a
>> permanent
>> arrangement?
>>
>> --
>>
>> -----
>> Joe S.
>>
>>
>
>

1865. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 20:04:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <rTDve.37$qy6.1098804@news.sisna.com>
Source record: 74232
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

An even better way to setup anonymity is with mail2news and a remailer,
it takes a bit more knowledge and work but is worth it in the long run.
A google should supply one with all necessary details and tools.

John

"bb" <billybeeper@juno.com> wrote in message
news:1119815925.888732.307890@g14g2000cwa.googlegroups.com...
>
>
> Holly wrote:
>> "bb" <billybeeper@juno.com> wrote in message
>> news:1119747738.926814.292740@g47g2000cwa.googlegroups.com...
>>
>>
>> John Smith wrote:
>> > I am sure that everyone here has noticed there is much too much
>> > attention paid to where posts originate from. And, there are
>> > childish
>> > personalities which look up where you are posting from--some with
>> > malicious intent...
>> >
>> > This URL will provide you with a means to be anonymous:
>> > http://www.antifirewall.com/news.htm
>> >
>> > This should allow everyone to put a stop to this bad behavior.
>> >
>> > John
>>
>> Yeh, I really don't like Robeson posting snippets of my address or
>> talking about my family.
>>
>>
>> //
>>
>> Of course it never dawned on you to simply ignore him, did it?
>> Besides, we all know you live on Longview Street.
>
> Thanks Jim. Quitefine advice.
>

1866. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 20:13:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bu342r5i3fe91@corp.supernews.com>
Source record: 74230

Reg Edwards wrote:
> A choke balun is what is inserted between the transmitter end of the
> antenna feedline and the transmitte tuner. Or it can be inserted at
> the antenna end of the line.
>
> Questions : How effective is it? To what extent can the percentage
> unbalance current on the feedline be expected to be reduced? Has
> anybody ever measured it before and after insertion?

Yep, and you'll find it right on the web. Go to
http://eznec.com/Amateur/Articles/Baluns.pdf and read the section titled
"Experiments" beginning on p. 3 of the PDF document. You might also find
some other interesting information in this article.

Warning, though. It was written by an American, so should be regarded
with great suspicion and skepticism.

Roy Lewallen, W7EL

1867. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 20:51:01 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11bu5akmpsjhe0c@news.supernews.com>
Source record: 74233
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Those trees have withstood every storm the past 30+ years.....

Any tower can be blown down no matter what ..just let mother nature have her
way.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Dave" <noone@nowhere.com> wrote in message
news:6_6dncbhW4LOlCLfRVn-oA@crocker.com...
> they may be forgiven, but that won't keep a tower in the air nor make it
> safer to climb. those sins are things you should seriously look at
> correcting as they all affect the strength and safety of your investment
> as well as anyone working on it or playing near it.
>
> "Charlie" <charlie@earthlink.com> wrote in message
> news:11bu1k0evf54aff@news.supernews.com...
>> Thank you all very much for your kindness and courtesy in responding to
>> my post.
>> Typically those that berate others have significant problems with self
>> esteem.
>>
>> Oh..as for those "sins"...mine are already forgiven.
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
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>> "Joe S." <nobody@nowhere.net> wrote in message
>> news:d9m4jr02tvu@news4.newsguy.com...
>>>
>>>

>>> "Charlie" <charlie@earthlink.com> wrote in message
>>> news:11bsdqpir7o54fa@news.supernews.com...
>>>> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft.
>>>> M2
>>>> 2M9SSB beam antenna at 90 ft.
>>>> The difference from antennas at around 30 ft to the same antennas at
>>>> 90-95
>>>> ft is astonishing. Anyone considering raising their antennas should
>>>> "just
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>>>> 1. http://deepsouthnet.net/tower.html
>>>>
>>>> I am founder and net control for the Deep South 2 Meter SSB Net located
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>>>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on
>>>> 144.240
>>> MHz
>>>> USB. We have 10-15 or more check-ins nightly with 38 on our All Time
>>> Total
>>>> Roster and nearly 25 on our Active Roster! The net has grown from
>>>> it's
>>>> first Roll Call on April 8,2005 at an amazing rate.
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>>>>
>>>> Charlie
>>>> Ham Radio - AD5TH
>>>> www.ad5th.com
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>>> Do I understand that the guy wires terminate to trees? Is that a
>>> permanent
>>> arrangement?
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>>> -----
>>> Joe S.
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1868. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 21:11:27 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8SEve.44$eF7.1532042@news.sisna.com>
Source record: 74239

Reg:

As usual, your posts inspire thought--and that is a GOOD thing.

At least with this type of balun:
http://home.datacomm.ch/hb9abx/pactor-e-choke.htm

I ask, "Why not?" The insertion loss is negligible. The downside of
its' use is virtually none. The upside is that in the future, as
objects may come into the field close enough to couple with the antenna,
or corrosion-weather-"stretch"-age-"or other factors begin to cause
slight imbalances-- the balun steps in and begins enforcing a "balance."

It just seems one would error on the side of caution and use such a
balun. I know of few better examples of a "win-win situation."

Indeed, the article Roy offered seems like one heck of an argument to
this end...

... certainly someone not prepared to weigh the "fly chit" they have
picked out of the pepper should just chuck one in the line and rest
assured "it is a good thing."

Warmest regards,
John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>A choke balun is what is inserted between the transmitter end of the
> antenna feedline and the transmitte tuner. Or it can be inserted at
> the antenna end of the line.
>
> Questions : How effective is it? To what extent can the percentage
> unbalance current on the feedline be expected to be reduced? Has
> anybody ever measured it before and after insertion?
> ----
> Reg.
>
>

1869. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 21:11:43 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qREve.8019$Zo.4905@bignews3.bellsouth.net>
Source record: 74234

Add that 4 ounces to the weight of 50 feet of coax.
then subtract the weight of 50 feet of balanced line
that is a larger difference

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:1rttb1po7mrncf72v5v2kf8f8pmco6b5c6@4ax.com...
> On Sun, 26 Jun 2005 14:19:30 -0400, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
> >The only thing I have against them (current baluns) is
> >They are heavy.
> >and cause the antenna to droop
> >lowering the height of the feedpoint.
> >Which is a good reason to put the balun near the radio and use balanced
> >feedline from there to the antenna
> >my 3.5 cents
>
>
> I just weighed 50 beads that are used in W2DU's balun and came up with
> a whopping 4 ounces!
>
> Yea, four ounces should cause one hell of a droop.<G>
>
> 73,
> Danny, K6MHE
>
>
>

1870. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 21:23:24 UTC
From: Dan Richardson <k6mhe>
Message-ID: <qt6ub1tq6825jenh7f49j64tlcnsv10shv@4ax.com>
Source record: 74235

In your original post you said:

"The only thing I have against them (current baluns) is
They are heavy.
and cause the antenna to droop lowering the height of the feedpoint."

Anyway, with say fifty pounds of tension just how much drop are you
talking about? And what difference does it make?

On Sun, 26 Jun 2005 17:11:43 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>Add that 4 ounces to the weight of 50 feet of coax.
>then subtract the weight of 50 feet of balanced line
>that is a larger difference
>
>"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
>news:1rttb1po7mrncf72v5v2kf8f8pmco6b5c6@4ax.com...
>> On Sun, 26 Jun 2005 14:19:30 -0400, "Hal Rosser"
>> <hmrosser@bellsouth.net> wrote:
>>
>> >The only thing I have against them (current baluns) is
>> >They are heavy.
>> >and cause the antenna to droop
>> >lowering the height of the feedpoint.
>> >Which is a good reason to put the balun near the radio and use balanced
>> >feedline from there to the antenna
>> >my 3.5 cents
>>
>>
>> I just weighed 50 beads that are used in W2DU's balun and came up with
>> a whopping 4 ounces!
>>
>> Yea, four ounces should cause one hell of a droop.<G>
>>
>> 73,
>> Danny, K6MHE
>>
>>
>>
>

1871. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 21:24:27 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <lr6ub15c5lm3cv0n1k24d8pp8fiusodd7c@4ax.com>
Source record: 74236

On Sun, 26 Jun 2005 15:51:01 -0500, "Charlie" <charlie@earthlink.com>
wrote:

>Those trees have withstood every storm the past 30+ years.....

Noticed you have metal straps around the tree trunks.

The QST article of Sept '89 on using trees as antenna supports says,
"Another no-no when attaching an antenna to a tree is wrapping a wire
around the trunk. This strangles the veins in the sapwood the same way
a noose around your neck would strangle you."

bob
k5qwg

>
>Any tower can be blown down no matter what ..just let mother nature have her
>way.

1872. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 21:34:21 UTC
From: richardharrison@webtv.net
Message-ID: <8199-42BF1F5D-394@storefull-3257.bay.webtv.net>
Source record: 74237

Bob, W9DMK wrote:
"The above paragraph was, however, a rather difficult diiffocult to understand ending---."

Fair enough. Ohm`s law prevails at a-c as it does at d-c. That is, I = E / Z, just as I = E / R. If Z is a load impedance, it dictates the current it accepts. An impedance in series with the load affects the voltage applied to the load, but whatever voltage to the load is, the current through the load is related to the voltage adross the load by Ohm`s law.

When a transmission line feeds a load, Ohm`s law prevails at the load Feed a certain current through and it produces a certain voltage drop. Feed a certain voltage and it allows a certain current.

This is repetitious, but it`s true. The line only functions at Zo. The load only functions at its load impedance. The adjustment between these two intransigents are the forward and reverse voltages and currents whose sums make up the actual voltage and current at the load.

Best regards, Richard Harrison, KB5WZI

1873. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 21:53:04 UTC
From: Owen <noone@no.where.net>
Message-ID: <ne7ub1pamfbtr805l9g470eg467dmo928s@4ax.com>
Source record: 74238

On Sun, 26 Jun 2005 13:37:46 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Questions : How effective is it? To what extent can the percentage
>unbalance current on the feedline be expected to be reduced? Has
>anybody ever measured it before and after insertion?

Reg, I haven't measured it, however...

I am in the process of modeling a balun as follow up on my G5RV feed systems analysis. The scenario is a G5RV at 10m centre height, a vertical drop of open wire line (the so called "matching section") and a balun at near ground height (with unbalanced shunt admittance introduced by the balun to ground).

I have been jiggling the unbalanced shunt admittance introduced by the balun and observing the current through that admittance wrt the feedline currents, and the apparent distortion of the radiation pattern. I could nearly as easily have been comparing the current in one of the wires of the feedline wrt the other, it is just the format of the currents report that makes the former easier. Another interesting observation would be the changes to receive sensitivity to vertically polarised waves (indicating possible feedline pickup).

The models indicate a few things so far:
- the effect of the balun is on the unbalance current distribution on the whole feedline;
- current imbalance at the base of the "matching section" of better than about -15dB caused little distortion of the pattern on 20m and below;
- some configurations seem quite undesirable in terms of pattern distortion even though balun current is quite low;
- raising the antenna / feedline / balun and lengthening the earth connection from the balun shunt admittance changes the current distribution.

This leads me to think that measurement of the imbalance current at a single point might not give the "big picture". I found scenarios where inserting an imperfect balun increased the current at a point (it changed the magnitude of the standing wave and more importantly moved the current minimum), so I could see someone with a handy-dandy current probe measuring such a situation and insisting they have proof the baluns don't "work".

Owen
--

1874. Re: Pizza, New Great-Circle Plotting Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-26 23:07:37 UTC
From: FDR <_remove_spam_block_rzitka@hotmail.com>
Message-ID: <ZyGve.40032$fp6.5475@twister.nyroc.rr.com>
Source record: 74240
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave

"K7JEB" <k7jeb.remove.this@qsl.net> wrote in message
news:90lrb1p949i59dv4la1bdm5lnid1tk74tq@4ax.com...
>
>
> A friend of mine, Jim Tonne, WB6BLD, has written a
> much-improved, Windows version of a classic great-circle
> plotting program and is providing it to the Amateur Radio
> community FOR FREE.
>
> If you are a DX'er and need an antenna-bearing aid or just
> like to poke around on the earth's geography, this program
> will be of interest to you.
>
> It calculates the bearing and distance from a Home location
> to a Target location anywhere in the world and displays this
> result on both azimuthal (polar) and rectangular maps. Both
> the Home and Target locations may be selected by mouse
> designations on the rectangular world map or chosen from a
> menu of cities, countries and callsign areas.

So this tells you how to get from Home Depot to a Target store? Cool.

1875. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 00:31:17 UTC
From: richardharrison@webtv.net
Message-ID: <17269-42BF48D5-494@storefull-3254.bay.webtv.net>
Source record: 74242

Bob, W9MDK wrote:
"The above paragraph, however, was a rather difficult to ubderstand reading,---."

I responded that the load would not accept volts and amps in a ratio which does not fit its load impedance. Perhaps we should reason together some more. The transmission line delivers power to the load at its Zo. When the load impedance is different, there is a surplus of either volts or amps. The surplus nust be reflected because the load can`t take it. That`s all.

Best regards, Richard Harrison, KB5WZI

1876. Re: 2 greatest Antennas I have ever had

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 00:35:41 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <Z6-dnfYyR-5G1CLfRVn-ig@adelphia.com>
Source record: 74241

RoyaltyFreePhotoMart@gmail.com wrote:
> I have 2 antennas that I an very happy with. These are by far the best
> preforming antennas I have ever owned.

The best antennas that most people have is the next one.

- Mike KB3EIA -

1877. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 01:01:25 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42bf4f92.44810524@news.crosslink.net>
Source record: 74243

On Sun, 26 Jun 2005 19:31:17 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Bob, W9MDK wrote:
>"The above paragraph, however, was a rather difficult to ubderstand
>reading,---."
>
>I responded that the load would not accept volts and amps in a ratio
>which does not fit its load impedance. Perhaps we should reason together
>some more. The transmission line delivers power to the load at its Zo.
>When the load impedance is different, there is a surplus of either volts
>or amps. The surplus nust be reflected because the load can`t take it.
>That`s all.
>
>Best regards, Richard Harrison, KB5WZI
>

Dear Richard,

Actually, your previous response was much more than I really expected.
I just wanted to see different wording on the original paragraph.
You've done a good job, and I hope everyone took good notes - Hi!

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

1878. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 01:47:55 UTC
From: "Joe S." <nobody@nowhere.net>
Message-ID: <d9nls20sbi@news1.newsguy.com>
Source record: 74244
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Charlie" <charlie@earthlink.com> wrote in message
news:11bu5akmpsjhe0c@news.supernews.com...
> Those trees have withstood every storm the past 30+ years.....
>
> Any tower can be blown down no matter what ..just let mother nature have
her
> way.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>

No, any tower cannot blow down no matter what. A properly installed tower, installed to manufacturer's specs, will withstand at least the wind load specified by the manufacturer.

In my initial reply in which I pointed out that the tower was guyed to one or more trees, I was trying to be nice. Now that others have chimed in, no more nice guy.

That piece of shit will come down on your house, possibly on neighbors' houses, and possibly on a power line. And when it does, this is a little bit of what will happen:
-- your homeowner's insurance company will send out a tower engineer to check the wreckage and will refuse to pay one penny.
-- your neighbors will sue for damages, their insurance companies will send out real tower engineers to inspect, and your homeowner's liability insurance will not pay a penny.
-- the power company will send out their engineers and will charge you to repair the damage to their lines and equipment.
-- you'll be damn lucky if no one is killed or injured when it comes down. And if anyone is, you could be looking at jail time, depending on whether or not your local prosecuting attorney wants to be a badass.

Here is a short list of problems with your tower:
-- not installed any way close to manufacturer's specs
-- mixed parts of different towers; what the hell is a "Sears" tower? Intended for TV antenna use? There is a BIG difference between real towers (Rohn) and make-believe towers.

-- base is a joke; a guyed 50-foot 25G requires 1.5 cubic yards of concrete. You are supporting 75 feet with less than a yard.
-- base is an even bigger joke when you consider that you used a homemade, non-galvanized base plate welded to some odd pieces of pipe buried a couple of feet in the ground. Welds are not cleaned and galvanized -- they will rust and break. Did you ever stop to think why tower parts are hot-dipped galvanized?
-- guyed to trees. Problem is not that the trees will come down, problem is that in a big blow, the trees will sway one way, pulling the guy wires with them, while the tower is swaying in the other direction, thereby popping the guy wires.
-- guyed to power pole. Did you clear this with the local power company first? When they discover what you have done to their pole, you'll need a lawyer and a big bank account.
-- too close to house -- when that thing comes down, it'll take out a big piece of house.
-- no thrust bearing so all the whipping around the mast will do will be absorbed by the rotator. But that's okay, when the tower comes down you can replace the rotator by standing on the ground.
-- did you use high-tensile steel for the mast or another piece of Radio Shack junk?

I'll look for you in QST -- Silent Keys in a couple of months.

--

Joe S.

>
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>
>
> "Dave" <noone@nowhere.com> wrote in message
> news:6_6dncbhW4LOlCLfRVn-oA@crocker.com...
> > they may be forgiven, but that won't keep a tower in the air nor make it
> > safer to climb. those sins are things you should seriously look at
> > correcting as they all affect the strength and safety of your investment
> > as well as anyone working on it or playing near it.
> >
> > "Charlie" <charlie@earthlink.com> wrote in message
> > news:11bu1k0evf54aff@news.supernews.com...
> >> Thank you all very much for your kindness and courtesy in responding to
> >> my post.
> >> Typically those that berate others have significant problems with self
> >> esteem.
> >>
> >> Oh..as for those "sins"...mine are already forgiven.
> >> --
> >>
> >> Charlie

> >> Ham Radio - AD5TH
> >> www.ad5th.com
> >> Deep South 2 Meter SSB Net
> >> www.deepsouthnet.net
> >>
> >>
> >>
> >>
> >>
> >> "Joe S." <nobody@nowhere.net> wrote in message
> >> news:d9m4jr02tvu@news4.newsguy.com...
> >>>
> >>>
> >>> "Charlie" <charlie@earthlink.com> wrote in message
> >>> news:11bsdqpir7o54fa@news.supernews.com...
> >>>> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft.
> >>>> M2
> >>>> 2M9SSB beam antenna at 90 ft.
> >>>> The difference from antennas at around 30 ft to the same antennas at
> >>>> 90-95
> >>>> ft is astonishing. Anyone considering raising their antennas should
> >>>> "just
> >>>> do it"
> >>>>
> >>>> 1. http://deepsouthnet.net/tower.html
> >>>>
> >>>> I am founder and net control for the Deep South 2 Meter SSB Net
located
> >>>> in
> >>>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on
> >>>> 144.240
> >>> MHz
> >>>> USB. We have 10-15 or more check-ins nightly with 38 on our All
Time
> >>> Total
> >>>> Roster and nearly 25 on our Active Roster! The net has grown from
> >>>> it's
> >>>> first Roll Call on April 8,2005 at an amazing rate.
> >>>>
> >>>> --
> >>>>
> >>>> Charlie
> >>>> Ham Radio - AD5TH
> >>>> www.ad5th.com
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> >>>>
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> >>>>
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> >>>
> >>> Do I understand that the guy wires terminate to trees? Is that a
> >>> permanent
> >>> arrangement?
> >>>
> >>> --
> >>>
> >>> -----
> >>> Joe S.
> >>>
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> >
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>

1879. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 02:01:57 UTC
From: richardharrison@webtv.net
Message-ID: <10915-42BF5E15-583@storefull-3256.bay.webtv.net>
Source record: 74245

Bob, W9MDK wrote:
"Actually, your previous response was much more than I expected."

Bob Lay is a well known designer and author. I appreciate his criticisms and comments as I appreciate those of Cecil, Ian, Richard C., Walter, and others. I make mistakes and typos, but can`t blame the shakes. My problems are fuzzy sight and forgetfulness. I`ve never taught, or written for magazines or books. I`m just a perpetual student. I`ve learned a lot here.

Thank you to all of you who have taught me much. I always read what Reg, Roy, and Wes have to say. They are rich information sources. There are many more great contributors, but I could not begin to name them all.

Some of the conflicts are roll on the floor funny. I thoroughly enjoy them as an observer. Thanks for the memories.

Best regards, Richard Harrison, KB5WZI

1880. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 02:18:00 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9681C49557A4Bspectrumhogstarbandn@207.106.92.175>
Source record: 74246
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Charlie" <charlie@earthlink.com> wrote in
news:11bu5akmpsjhe0c@news.supernews.com:
> Those trees have withstood every storm the past 30+ years.....
>
> Any tower can be blown down no matter what ..just let mother nature
> have her way.
>

Well, Charlie, those trees have withstood mother nature up til now.
Whether or not they are healthy, they now are supporting a 90 foot tower,
in addition to their own wind load. Things are different now.

As far as ANY tower can be blown down.... not really true for a properly
engineered and maintained structure.

Ed K7AAT

1881. Re: 2 greatest Antennas I have ever had

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 02:24:31 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <Os2dnaMA_Yvk_yLfRVn-1w@vnet-inc.com>
Source record: 74247

Antennas are like military assignments - there are only two good ones: The last one and the next one.

Just the way things are.

1882. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 03:07:01 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <r3Kve.5931$2S.425@fe03.lga>
Source record: 74248

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42bc2d46$1_2@spool9-west.superfeed.net...
> Tom Donaly wrote:
>> Nothing, short of
>> a visitation by The Creator will make some of the correspondents
>> to this newsgroup change their thinking about how transmission
>> lines behave.
>
> Hey Tom, what do you think about Ramo & Whinnery's assertion
> in _Fields_and_Waves_... 2nd edition, page 291 " .. we are
> often most interested in the ratio of power in the reflected
> wave to that in the incident wave, and this ratio is given
> by the square of the magnitude of [rho], as can be shown by
> considering the Poynting vectors: Pz-/Pz+ = |rho|^2 (3)"
>
> Note the plural "Poynting vectors", Pz- for reflected power
> and Pz+ for forward power.
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
Cecil, concerning Poynting vectors, may I refer you to the last paragraph of
Page 8-3 in Reflections 1, or the last paragraph beginning on Page 8-2 of
Reflections 2.

Walt, W2DU

1883. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 03:26:44 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11busgftdv3a821@news.supernews.com>
Source record: 74249
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Thank you Joe for your unsolicited candor.....

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Joe S." <nobody@nowhere.net> wrote in message
news:d9nls20sbi@news1.newsguy.com...
>
> "Charlie" <charlie@earthlink.com> wrote in message
> news:11bu5akmpsjhe0c@news.supernews.com...
>> Those trees have withstood every storm the past 30+ years.....
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>> Any tower can be blown down no matter what ..just let mother nature have
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>> way.
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>>
>
> No, any tower cannot blow down no matter what. A properly installed
> tower,
> installed to manufacturer's specs, will withstand at least the wind load
> specified by the manufacturer.
>
> In my initial reply in which I pointed out that the tower was guyed to one
> or more trees, I was trying to be nice. Now that others have chimed in,
> no
> more nice guy.
>
> That piece of shit will come down on your house, possibly on neighbors'
> houses, and possibly on a power line. And when it does, this is a little
> bit of what will happen:
> -- your homeowner's insurance company will send out a tower engineer to

> check the wreckage and will refuse to pay one penny.
> -- your neighbors will sue for damages, their insurance companies will
> send
> out real tower engineers to inspect, and your homeowner's liability
> insurance will not pay a penny.
> -- the power company will send out their engineers and will charge you to
> repair the damage to their lines and equipment.
> -- you'll be damn lucky if no one is killed or injured when it comes down.
> And if anyone is, you could be looking at jail time, depending on whether
> or
> not your local prosecuting attorney wants to be a badass.
>
> Here is a short list of problems with your tower:
> -- not installed any way close to manufacturer's specs
> -- mixed parts of different towers; what the hell is a "Sears" tower?
> Intended for TV antenna use? There is a BIG difference between real
> towers
> (Rohn) and make-believe towers.
> -- base is a joke; a guyed 50-foot 25G requires 1.5 cubic yards of
> concrete.
> You are supporting 75 feet with less than a yard.
> -- base is an even bigger joke when you consider that you used a homemade,
> non-galvanized base plate welded to some odd pieces of pipe buried a
> couple
> of feet in the ground. Welds are not cleaned and galvanized -- they will
> rust and break. Did you ever stop to think why tower parts are hot-dipped
> galvanized?
> -- guyed to trees. Problem is not that the trees will come down, problem
> is
> that in a big blow, the trees will sway one way, pulling the guy wires
> with
> them, while the tower is swaying in the other direction, thereby popping
> the
> guy wires.
> -- guyed to power pole. Did you clear this with the local power company
> first? When they discover what you have done to their pole, you'll need a
> lawyer and a big bank account.
> -- too close to house -- when that thing comes down, it'll take out a big
> piece of house.
> -- no thrust bearing so all the whipping around the mast will do will be
> absorbed by the rotator. But that's okay, when the tower comes down you
> can
> replace the rotator by standing on the ground.
> -- did you use high-tensile steel for the mast or another piece of Radio
> Shack junk?
>
> I'll look for you in QST -- Silent Keys in a couple of months.
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> Joe S.
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>> > safer to climb. those sins are things you should seriously look at
>> > correcting as they all affect the strength and safety of your
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>> > as well as anyone working on it or playing near it.
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>> > "Charlie" <charlie@earthlink.com> wrote in message
>> > news:11bu1k0evf54aff@news.supernews.com...
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>> >> to
>> >> my post.
>> >> Typically those that berate others have significant problems with self
>> >> esteem.
>> >>
>> >> Oh..as for those "sins"...mine are already forgiven.
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>> >>
>> >> Charlie
>> >> Ham Radio - AD5TH
>> >> www.ad5th.com
>> >> Deep South 2 Meter SSB Net
>> >> www.deepsouthnet.net
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>> >> "Joe S." <nobody@nowhere.net> wrote in message
>> >> news:d9m4jr02tvu@news4.newsguy.com...
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>> >>> "Charlie" <charlie@earthlink.com> wrote in message
>> >>> news:11bsdqpir7o54fa@news.supernews.com...
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>> >>>> ft.
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>> >>>> ft is astonishing. Anyone considering raising their antennas should
>> >>>> "just
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>> >>>>
>> >>>> 1. http://deepsouthnet.net/tower.html
>> >>>>
>> >>>> I am founder and net control for the Deep South 2 Meter SSB Net
> located
>> >>>> in
>> >>>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on
>> >>>> 144.240
>> >>> MHz
>> >>>> USB. We have 10-15 or more check-ins nightly with 38 on our All
> Time
>> >>> Total
>> >>>> Roster and nearly 25 on our Active Roster! The net has grown
>> >>>> from
>> >>>> it's
>> >>>> first Roll Call on April 8,2005 at an amazing rate.
>> >>>>
>> >>>> --
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>> >>> Joe S.
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1884. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 03:34:35 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <ftKve.9674$jX6.5269@newsread2.news.pas.earthlink.net>
Source record: 74250

Be sure to print it out as it changes almost daily. Very strange,
indeed.

--
Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"John Smith" <assemblywizard@gmail.com> wrote in message
news:E0Bve.17$8L.379969@news.sisna.com...
> A very interesting analysis of this design can be found at:
> http://www.w8ji.com/balun_single_core_41_analysis.htm
>
> ... for those who have not yet seen it.
>
> John
>
> "Chris Trask" <christrask@earthlink.net> wrote in message
> news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...
> > In recent days on the QRP-L mailing list, the following remarks
> > were
> > made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:
> >
> > "...it is impossible to build a 4:1 ratio current balun that
> > uses two 1:1 baluns on a single core."
> >
> > and:
> >
> > "It's well established any balun made up of series / parallel
> > transmission lines requires different voltages from the start

> > to finish of each transmission line. "
> >
> > I have devised and modeled a 4:1 current balun using two 1:1 baluns on
> > a
> > single core, and have tested a fully functional prototype. The design
> > can
> > be built without any core, if so desired. The full disclosure of this
> > design with all theory, references, and test results can be obtained
> > from my
> > web page at:
> >
> > http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
> >
> > The design proves beyond all reasonable doubt that the above
> > statements to
> > the contrary are, to put it mildly, gravely in error.
> >
> > Chris
> >
> > ,----------------------. High Performance Mixers and
> > / What's all this \ Amplifiers for RF Communications
> > / extinct stuff, anyhow? /
> > \ _______,--------------' Chris Trask / N7ZWY
> > _ |/ Principal Engineer
> > oo\ Sonoran Radio Research
> > (__)\ _ P.O. Box 25240
> > \ \ .' `. Tempe, Arizona 85285-5240
> > \ \ / \
> > \ '" \ IEEE Senior Member #40274515
> > . ( ) \
> > '-|)__| :. \ Email: christrask@earthlink.net
> > | | | | \ '. http://www.home.earthlink.net/~christrask
> > c__; c__; '-..'>.__
> >
> > Graphics by Loek Frederiks
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1885. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 03:41:01 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <hzKve.9677$jX6.2377@newsread2.news.pas.earthlink.net>
Source record: 74251

What impedance ratio are you interested in? Reason for asking is that
when I was looking for prior art on current baluns I came across a very
interesting 1:1 design that uses two equal length pieces of coax that would
each be less than an eighth of a wavelength long and which has a very wide
bandwidth. I copied the schematic (which has a slight error) and the photo
to a single sheet PDF file if anyone's interested.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
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'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:d9mb3a$de3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> A choke balun is what is inserted between the transmitter end of the
> antenna feedline and the transmitte tuner. Or it can be inserted at
> the antenna end of the line.
>
> Questions : How effective is it? To what extent can the percentage
> unbalance current on the feedline be expected to be reduced? Has
> anybody ever measured it before and after insertion?
> ----
> Reg.
>
>

1886. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 03:44:47 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XCKve.80$dz5.2533475@news.sisna.com>
Source record: 74254
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

... Joe S. was a bit harsh.

However, I have a cousin who is a mucky-muck in the "insurance scam", frankly it is my belief that some of those guys would beat pennies out of widows if it paid enough.

If it were me, I'd see if I couldn't work on the tree thing a bit and set up some steel-galvanized pipes set in a generous block of concrete and perhaps tied to deadmen to make sure the "insurance thieves" did not find a new victim in me...

... I have about the same respect for insurance people as I do for lawyers, since the supreme court decision on confiscation of private property--they now join those ranks--the constitution seems damn clear on the point to me--indeed, I would expect any high school kid with a proper course in american history to make a better decision than they managed--so nothing surprises me--and for that reason I'd always plan for the worse...

John
"Charlie" <charlie@earthlink.com> wrote in message
news:11busgftdv3a821@news.supernews.com...
> Thank you Joe for your unsolicited candor.....
>
> --
>
> Charlie
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>
> "Joe S." <nobody@nowhere.net> wrote in message
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>> "Charlie" <charlie@earthlink.com> wrote in message
>> news:11bu5akmpsjhe0c@news.supernews.com...
>>> Those trees have withstood every storm the past 30+ years.....
>>>
>>> Any tower can be blown down no matter what ..just let mother nature

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>> No, any tower cannot blow down no matter what. A properly installed
>> tower,
>> installed to manufacturer's specs, will withstand at least the wind
>> load
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>>
>> In my initial reply in which I pointed out that the tower was guyed
>> to one
>> or more trees, I was trying to be nice. Now that others have chimed
>> in, no
>> more nice guy.
>>
>> That piece of shit will come down on your house, possibly on
>> neighbors'
>> houses, and possibly on a power line. And when it does, this is a
>> little
>> bit of what will happen:
>> -- your homeowner's insurance company will send out a tower engineer
>> to
>> check the wreckage and will refuse to pay one penny.
>> -- your neighbors will sue for damages, their insurance companies
>> will send
>> out real tower engineers to inspect, and your homeowner's liability
>> insurance will not pay a penny.
>> -- the power company will send out their engineers and will charge
>> you to
>> repair the damage to their lines and equipment.
>> -- you'll be damn lucky if no one is killed or injured when it comes
>> down.
>> And if anyone is, you could be looking at jail time, depending on
>> whether or
>> not your local prosecuting attorney wants to be a badass.
>>
>> Here is a short list of problems with your tower:
>> -- not installed any way close to manufacturer's specs
>> -- mixed parts of different towers; what the hell is a "Sears" tower?
>> Intended for TV antenna use? There is a BIG difference between real

>> towers
>> (Rohn) and make-believe towers.
>> -- base is a joke; a guyed 50-foot 25G requires 1.5 cubic yards of
>> concrete.
>> You are supporting 75 feet with less than a yard.
>> -- base is an even bigger joke when you consider that you used a
>> homemade,
>> non-galvanized base plate welded to some odd pieces of pipe buried a
>> couple
>> of feet in the ground. Welds are not cleaned and galvanized -- they
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>> rust and break. Did you ever stop to think why tower parts are
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>> galvanized?
>> -- guyed to trees. Problem is not that the trees will come down,
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>> that in a big blow, the trees will sway one way, pulling the guy
>> wires with
>> them, while the tower is swaying in the other direction, thereby
>> popping the
>> guy wires.
>> -- guyed to power pole. Did you clear this with the local power
>> company
>> first? When they discover what you have done to their pole, you'll
>> need a
>> lawyer and a big bank account.
>> -- too close to house -- when that thing comes down, it'll take out a
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>> piece of house.
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>>> >>>> do it"
>>> >>>>

>>> >>>> 1. http://deepsouthnet.net/tower.html
>>> >>>>
>>> >>>> I am founder and net control for the Deep South 2 Meter SSB Net
>> located
>>> >>>> in
>>> >>>> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT
>>> >>>> on
>>> >>>> 144.240
>>> >>> MHz
>>> >>>> USB. We have 10-15 or more check-ins nightly with 38 on our
>>> >>>> All
>> Time
>>> >>> Total
>>> >>>> Roster and nearly 25 on our Active Roster! The net has
>>> >>>> grown from
>>> >>>> it's
>>> >>>> first Roll Call on April 8,2005 at an amazing rate.
>>> >>>>
>>> >>>> --
>>> >>>>
>>> >>>> Charlie
>>> >>>> Ham Radio - AD5TH
>>> >>>> www.ad5th.com
>>> >>>> Deep South 2 Meter SSB Net
>>> >>>> www.deepsouthnet.net
>>> >>>>
>>> >>>>
>>> >>>>
>>> >>>>
>>> >>>>
>>> >>>>
>>> >>>
>>> >>> Do I understand that the guy wires terminate to trees? Is that
>>> >>> a
>>> >>> permanent
>>> >>> arrangement?
>>> >>>
>>> >>> --
>>> >>>
>>> >>> -----
>>> >>> Joe S.
>>> >>>
>>> >>>
>>> >>
>>> >>
>>> >
>>> >
>>>
>>>
>>

>>
>
>

1887. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 03:56:09 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <AMKve.14094$qm.1085@bignews6.bellsouth.net>
Source record: 74252

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:qt6ub1tq6825jenh7f49j64tlcnsv10shv@4ax.com...
> In your original post you said:
>
> "The only thing I have against them (current baluns) is
> They are heavy.
> and cause the antenna to droop lowering the height of the feedpoint."
>
> Anyway, with say fifty pounds of tension just how much drop are you
> talking about? And what difference does it make?
>

Apparently it makes more difference to me than it does to you.
I don't want it digging into the tree branches.
Nothing wrong with your view - its probably a better-informed view than
mine - but I'll still use balanced line and I still think baluns are too
heavy. I'm just hard-headed that way. :-)

1888. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 04:05:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <wWKve.85$yA4.2445335@news.sisna.com>
Source record: 74255

Chris:

You do not agree with any of his analysis?

You do not think this is more of an isolation transformer than a balun?
If not, how do you claim a "transmission line" quality/effect to it?

And, you did notice an insertion loss from this "device", didn't you?

John

"Chris Trask" <christrask@earthlink.net> wrote in message
news:ftKve.9674$jX6.5269@newsread2.news.pas.earthlink.net...
> Be sure to print it out as it changes almost daily. Very strange,
> indeed.
>
> --
> Chris
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> / What's all this \ Amplifiers for RF Communications
> / extinct stuff, anyhow? /
> \ _______,--------------' Chris Trask / N7ZWY
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> oo\ Sonoran Radio Research
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> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:E0Bve.17$8L.379969@news.sisna.com...
>> A very interesting analysis of this design can be found at:
>> http://www.w8ji.com/balun_single_core_41_analysis.htm
>>
>> ... for those who have not yet seen it.
>>
>> John
>>
>> "Chris Trask" <christrask@earthlink.net> wrote in message

```
>> news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...
>> > In recent days on the QRP-L mailing list, the following remarks
>> > were
>> > made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:
>> >
>> > "...it is impossible to build a 4:1 ratio current balun that
>> > uses two 1:1 baluns on a single core."
>> >
>> > and:
>> >
>> > "It's well established any balun made up of series / parallel
>> > transmission lines requires different voltages from the start
>> > to finish of each transmission line. "
>> >
>> > I have devised and modeled a 4:1 current balun using two 1:1 baluns
>> > on
>> > a
>> > single core, and have tested a fully functional prototype. The
>> > design
>> > can
>> > be built without any core, if so desired. The full disclosure of
>> > this
>> > design with all theory, references, and test results can be
>> > obtained
>> > from my
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>> > http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
>> >
>> > The design proves beyond all reasonable doubt that the above
>> > statements to
>> > the contrary are, to put it mildly, gravely in error.
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```

>> >
>> > Graphics by Loek Frederiks
>> >
>> >
>> >
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>> >
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>
>

1889. Re: Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 04:06:13 UTC
From: Leonard Kubiak <ootman1@earthlink.net>
Message-ID: <VWKve.12759$VK4.1859@newsread1.news.atl.earthlink.net>
Source record: 74253

How about buying a rotor manufactured in Austrailla......Problem solved.,........

1890. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 04:58:15 UTC
From: Gary
Message-ID: <c21vb15bd3m6b8vue1ubfbjr36sojhloc3@4ax.com>
Source record: 74256

On Sun, 26 Jun 2005 13:37:46 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>A choke balun is what is inserted between the transmitter end of the
>antenna feedline and the transmitte tuner. Or it can be inserted at
>the antenna end of the line.
>
>Questions : How effective is it? To what extent can the percentage
>unbalance current on the feedline be expected to be reduced? Has
>anybody ever measured it before and after insertion?
>----
>Reg.
>

I ran across an article on choke baluns recently in the 2004 ARRL
handbook. It said (as best as I can recall) that "purists" might
argue for the use of a choke balun for dipoles for the optimum
radiation pattern, but that most dipoles weren't high enough off the
ground to have a "correct" pattern anyway, so their use for optimum
radiation patterns is questionable at best. Keeping RF out of the
shack might be a different story ? I used a coaxial choke balun on my
G5RV but I don't use either a coaxial choke balun or a commercial
balun on either my 40 meter dipole (too heavy, the dipole is
constructed out of 18 Ga wire) or my 30 meter dipole. I was too lazy
to go through all the hassles of either wiring up a PL connector for
the commercial choke balun I have and I didn't want to wind up several
feet of coax for a coaxial balun (weight and sag issues again)

YMMV

Gary

1891. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 05:01:07 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <nKLve.10037$hK3.6644@newsread3.news.pas.earthlink.net>
Source record: 74257

Tom is absolutely desparate to prove to the world that you cannot under any circumstances make a 4:1 current balun on a single core. So, he tests the single core Guanella balun with the usual test for a current balun (short the outputs to gound one at a time and see if the input return loss changes) knowing fully well that the Guanella 4:1 current balun on a single core will only work with floating loads.

He is now equally desparate to prove that since nobody but he understands transmission line transformers it is impossible for anyone else to understand or apply them. He also fails completely in understanding that the ferrite used in transmission line transformers is to improve the low frequency end by making the transmission line appear longer.

He's truly amazing, and he is mad as hell. He claims that it is absolutely impossible to make a 4:1 current balun on a single core with a pair of 1:1 transformers (of any kind whatsoever), while the Guanelle 4:1 current balun has a pair of 1:1 transformers on a single core right in front of him. He also makes numerous other outrageous claims that defy all manner of electronics theory.

Here are some of his more memorable quotes along with the URLs for the QRP-L archives so you can see that he is not taken out of context, contrary to what he says:

"...it is impossible to build a 4:1 ratio current balun that uses two 1:1 baluns on a single core."

which in the archives at:

http://mailman.qth.net/pipermail/qrp-l/20050612/020884.html

This is a good one:

"It's well established any balun made up of series / parallel transmission lines requires different voltages from the start to finish of each transmission line. "

which in the archives at:

http://mailman.qth.net/pipermail/qrp-l/20050621/021331.html

and the following:

"It is physically impossible to build a transmission line current balun other than 1:1 on a single core when the windings have mutual coupling through the core."

which is in the archives at:

http://mailman.qth.net/pipermail/qrp-l/20050622/021442.html

as well as:

"It's well established any balun made up of series / parallel
transmission lines requires different voltages from the
start to finish of each transmission line. You can find it
in voltage maps of the balun."

which is the archives at:

http://mailman.qth.net/pipermail/qrp-l/20050621/021331.html

and additionally:

"It is quite possible to build any reasonable ratio of
conventional transformer (as long as it is the square of
turns ratio) on a single core. It is quite impossible to
build a current balun of any ratio other than 1:1 using
multiple transmission line transformers on a single core
unless flux leakage between transmission lines is terrible."

which is in the archives at:

http://mailman.qth.net/pipermail/qrp-l/20050622/021408.html

as well as:

"It impossible to build anything but a 1:1 ratio current
balun when multiple transmission line transformers are
placed on a single core. The voltage map shows that, as does
the basic electrical rule of current baluns that all
currents in all windings must sum to zero under all load
balance conditions."

which is in the archives at:

http://mailman.qth.net/pipermail/qrp-l/20050622/021416.html

There is no room for ambiguity here. As you can see, he is making
unsubstantiated claims of "it is impossible" and "it is well established"
that have no basis in fact. The problem here is really that I solved the
problem of the single-core 4:1 current balun and he is mad as hell because
in his world such a thing cannot possibly exist. So, he makes up additional
new electronics theories to prove that everything you know is wrong.

Chris

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Graphics by Loek Frederiks

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1892. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 05:13:31 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11bv2l61vm5red4@corp.supernews.com>
Source record: 74258
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Dear Charlie AD5TH:
You have performed a great service by presenting the results of K5HGR's engineering and your work. Its educational value is almost beyond calculation.

In this part of the world one would need to have a licensed professional engineer (PE) sign off on such a structure. Clearly, down your way one has freedom to innovate without concern for issues that we are required to consider.

My goodness. I recently completed a task of a tall tower in a populated area where I had to have design work from the factory's PE, have that work reviewed by a local PE, get permission from the local municipality, have the airport sign off on the height, take soil samples so that a safe foundation could be designed, watch the fabrication of the foundation to make sure that it was done right, and on and on... Course, we do get serious wind up here and it just would not do to kill someone with a tower collapse.

You sure are fortunate not to have all of the things we have to put up with and not even have to worry about wind. Do keep us posted. The whole story has yet to be revealed.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

1893. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 05:15:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <VXLve.96$ZK7.2834504@news.sisna.com>
Source record: 74265

Chris:

I see. It is interesting reading anyway, thanks.

Warmest regards,
John

"Chris Trask" <christrask@earthlink.net> wrote in message
news:nKLve.10037$hK3.6644@newsread3.news.pas.earthlink.net...
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>> >> > ,----------------------. High Performance Mixers and
>> >> > / What's all this \ Amplifiers for RF
>> >> > Communications
>> >> > / extinct stuff, anyhow? /
>> >> > \ _______,--------------' Chris Trask / N7ZWY
>> >> > _ |/ Principal Engineer
>> >> > oo\ Sonoran Radio Research
>> >> > (__)\ _ P.O. Box 25240
>> >> > \ \ .' `. Tempe, Arizona 85285-5240
>> >> > \ \ / \
>> >> > \ '" \ IEEE Senior Member #40274515
>> >> > . ( ) \
>> >> > '-|)__| :. \ Email: christrask@earthlink.net
>> >> > | | | | \ '.
>> >> > http://www.home.earthlink.net/~christrask

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>> >> > c__; c__; '-..'>.__
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>> >> > Graphics by Loek Frederiks
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1894. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 05:16:08 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <sYLve.10045$hK3.434@newsread3.news.pas.earthlink.net>
Source record: 74259

It's not a matter of whether I disagree with him or not. It's a matter of him standing on a cybersoapbox and declaring to the world in numerous ways that such a thing cannot work and that only his analysis of how it can and cannot work is valid. He can't deny that he claimed that it was impossible, so now he has to prove that the solution cannot possibly work the way that he knows that it cannot work. Whatever.

Actually, I sort of like all of the visibility he's giving me. More people are learning that I have solved the problem because of him broadcasting it and trying desperately to dismiss it than would ever know if I had just put it on my web page and not said anything. Free advertising.

I also owe it to him for inspiring me to solve the problem. If he hadn't made such outrageous statements on the QRP-L list I might never have bothered to look into the problem and learn that nobody had yet solved it, or at least solved it and made the solution known.

You never know how and when opportunities like this are going to be dropped in your lap. And sometimes they come from the most unexpected places. Trick is in recognizing the opportunity and then solving it.

If people were to listen to him, the problem would never be solved because according to him it is impossible to make such a thing. I've got three of them on my bench right now made three different ways, and they all work just fine despite the fact that he says they can't. The low frequency 3dB point is around 600kHz and the high frequency 3dB point is beyond 500MHz. Not bad for a couple of hours of work and a few spare parts from other projects.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
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\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"John Smith" <assemblywizard@gmail.com> wrote in message
news:wWKve.85$yA4.2445335@news.sisna.com...
> Chris:
>
> You do not agree with any of his analysis?
>
> You do not think this is more of an isolation transformer than a balun?
> If not, how do you claim a "transmission line" quality/effect to it?
>
> And, you did notice an insertion loss from this "device", didn't you?
>
> John
>
> "Chris Trask" <christrask@earthlink.net> wrote in message
> news:ftKve.9674$jX6.5269@newsread2.news.pas.earthlink.net...
> > Be sure to print it out as it changes almost daily. Very strange,
> > indeed.
> >
> > --
> > Chris
> >
> > ,----------------------. High Performance Mixers and
> > / What's all this \ Amplifiers for RF Communications
> > / extinct stuff, anyhow? /
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> >
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> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:E0Bve.17$8L.379969@news.sisna.com...
> >> A very interesting analysis of this design can be found at:
> >> http://www.w8ji.com/balun_single_core_41_analysis.htm
> >>
> >> ... for those who have not yet seen it.
> >>
> >> John
> >>
> >> "Chris Trask" <christrask@earthlink.net> wrote in message
> >> news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...

> >> > In recent days on the QRP-L mailing list, the following remarks
> >> > were
> >> > made by Tom Rauch, W8JI regarding the design of 4:1 current baluns:
> >> >
> >> > "...it is impossible to build a 4:1 ratio current balun that
> >> > uses two 1:1 baluns on a single core."
> >> >
> >> > and:
> >> >
> >> > "It's well established any balun made up of series / parallel
> >> > transmission lines requires different voltages from the start
> >> > to finish of each transmission line. "
> >> >
> >> > I have devised and modeled a 4:1 current balun using two 1:1 baluns
> >> > on
> >> > a
> >> > single core, and have tested a fully functional prototype. The
> >> > design
> >> > can
> >> > be built without any core, if so desired. The full disclosure of
> >> > this
> >> > design with all theory, references, and test results can be
> >> > obtained
> >> > from my
> >> > web page at:
> >> >
> >> > http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
> >> >
> >> > The design proves beyond all reasonable doubt that the above
> >> > statements to
> >> > the contrary are, to put it mildly, gravely in error.
> >> >
> >> > Chris
> >> >
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1895. Re: Pizza, New Great-Circle Plotting Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 05:40:35 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <134vb19lsaj3a9bt58shjtn564smv3elsi@4ax.com>
Source record: 74260
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave

On 26 Jun 2005 06:03:12 -0700, "CAM" <w5dxp@arrl.net> wrote:

>K7JEB wrote:
>> Oh, yeah, that name. Bring up an azimuth plot of the
>> entire world and it hits you in the eye like a big
>> pizza pie -- that's amorï¿½!

>Just don't expect to find it by doing a web search
>for "pizza". :-)

'pizza + great + circle' works well, though.

k7jeb

1896. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 05:57:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <RzMve.98$Hk6.2623506@news.sisna.com>
Source record: 74263

Chris:

Well, your design certainly started me thinking. So, I began winding...
on a single core--of course...

I am NOT claiming this is unique, but it works better than the design
you presented, at least, ON my sw receiver...

... take a look at it here:
http://blake.prohosting.com/mailguy2/balun2.JPG

Warmest regards,
John

"Chris Trask" <christrask@earthlink.net> wrote in message
news:nKLve.10037$hK3.6644@newsread3.news.pas.earthlink.net...
> Tom is absolutely desparate to prove to the world that you cannot
> under
> any circumstances make a 4:1 current balun on a single core. So, he
> tests
> the single core Guanella balun with the usual test for a current balun
> (short the outputs to gound one at a time and see if the input return
> loss
> changes) knowing fully well that the Guanella 4:1 current balun on a
> single
> core will only work with floating loads.
>
> He is now equally desparate to prove that since nobody but he
> understands transmission line transformers it is impossible for anyone
> else
> to understand or apply them. He also fails completely in
> understanding that
> the ferrite used in transmission line transformers is to improve the
> low
> frequency end by making the transmission line appear longer.
>
> He's truly amazing, and he is mad as hell. He claims that it is
> absolutely impossible to make a 4:1 current balun on a single core
> with a
> pair of 1:1 transformers (of any kind whatsoever), while the Guanelle
> 4:1
> current balun has a pair of 1:1 transformers on a single core right in
> front
> of him. He also makes numerous other outrageous claims that defy all
> manner
> of electronics theory.

>
> Here are some of his more memorable quotes along with the URLs for
> the
> QRP-L archives so you can see that he is not taken out of context,
> contrary
> to what he says:
>
> "...it is impossible to build a 4:1 ratio current balun that
> uses two 1:1 baluns on a single core."
>
> which in the archives at:
>
> http://mailman.qth.net/pipermail/qrp-l/20050612/020884.html
>
> This is a good one:
>
> "It's well established any balun made up of series / parallel
> transmission lines requires different voltages from the start
> to finish of each transmission line. "
>
> which in the archives at:
>
> http://mailman.qth.net/pipermail/qrp-l/20050621/021331.html
>
> and the following:
>
> "It is physically impossible to build a transmission line
> current balun other than 1:1 on a single core when the
> windings have mutual coupling through the core."
>
> which is in the archives at:
>
> http://mailman.qth.net/pipermail/qrp-l/20050622/021442.html
>
> as well as:
>
> "It's well established any balun made up of series / parallel
> transmission lines requires different voltages from the
> start to finish of each transmission line. You can find it
> in voltage maps of the balun."
>
> which is the archives at:
>
> http://mailman.qth.net/pipermail/qrp-l/20050621/021331.html
>
> and additionally:
>
> "It is quite possible to build any reasonable ratio of
> conventional transformer (as long as it is the square of
> turns ratio) on a single core. It is quite impossible to

> build a current balun of any ratio other than 1:1 using
> multiple transmission line transformers on a single core
> unless flux leakage between transmission lines is terrible."
>
> which is in the archives at:
>
> http://mailman.qth.net/pipermail/qrp-l/20050622/021408.html
>
> as well as:
>
> "It impossible to build anything but a 1:1 ratio current
> balun when multiple transmission line transformers are
> placed on a single core. The voltage map shows that, as does
> the basic electrical rule of current baluns that all
> currents in all windings must sum to zero under all load
> balance conditions."
>
> which is in the archives at:
>
> http://mailman.qth.net/pipermail/qrp-l/20050622/021416.html
>
> There is no room for ambiguity here. As you can see, he is making
> unsubstantiated claims of "it is impossible" and "it is well
> established"
> that have no basis in fact. The problem here is really that I solved
> the
> problem of the single-core 4:1 current balun and he is mad as hell
> because
> in his world such a thing cannot possibly exist. So, he makes up
> additional
> new electronics theories to prove that everything you know is wrong.
>
> Chris
>
> ,----------------------. High Performance Mixers and
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> \ _______,--------------' Chris Trask / N7ZWY
> _ |/ Principal Engineer
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> Graphics by Loek Frederiks

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> "John Smith" <assemblywizard@gmail.com> wrote in message
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>> You do not agree with any of his analysis?
>>
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>> If not, how do you claim a "transmission line" quality/effect to it?
>>
>> And, you did notice an insertion loss from this "device", didn't you?
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>> >> A very interesting analysis of this design can be found at:
>> >> http://www.w8ji.com/balun_single_core_41_analysis.htm
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>> >>
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>> >> > transmission lines requires different voltages from the start
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>> >> > on
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>> >> > design
>> >> > can
>> >> > be built without any core, if so desired. The full disclosure
>> >> > of
>> >> > this
>> >> > design with all theory, references, and test results can be
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1897. Re: Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 06:29:48 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1119853787.966938.292060@f14g2000cwb.googlegroups.com>
Source record: 74261

Once you hang the antenna upside down, make yourself a daisywheel, like on the dinner table. Then jack the daisy table upwards until it has all of the weight of the antenna on it. Then you will not have any weight hanging down from the rotor.

Where can a person take a look at this "Channel Master 8 bay bowtie antenna?

1898. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 06:29:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <oo6vb1dhqt02ap5ii53us4k6v7jnq3uiq5@4ax.com>
Source record: 74262

On Mon, 27 Jun 2005 05:01:07 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

>He also fails completely in understanding that
>the ferrite used in transmission line transformers is to improve the low
>frequency end by making the transmission line appear longer.

Hi Chris,

Now, given that a "transmission line transformer," as distinct from a
conventional transformer built using transmission lines, does not
support flux in the ferrite; how is it that the ferrite makes the line
appear longer?

Second, if this were to occur (through the design of a "transmission
line transformer" that was a voltage BalUn); what is the advantage of
longer lines?

73's
Richard Clark, KB7QHC

1899. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 06:40:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cb7vb15dk654i4385ls5uth9aa4skg502m@4ax.com>
Source record: 74264

On Mon, 27 Jun 2005 05:16:08 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

>The low frequency
>3dB point is around 600kHz and the high frequency 3dB point is beyond
>500MHz.

Hi Chris,

If this relates in some way to your published return loss
characteristic, then I have to offer that it is hardly representative
of the best of BalUns to offer. Sevick offers at least half a dozen
with scads less loss and operating flat to within less than a fraction
of a dB.

Now by your tying in an implicit BW from 600KHz to 500MHz, this comes
too close to brightening your teeth and improving your sex life.
Within 3dB? Given your design, and it being voltage based, supporting
flux through currents driving the core, 3dB would be a hell of a dummy
load and hardly a crowning achievement.

73's
Richard Clark, KB7QHC

1900. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 07:31:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bvaqek0bql349@corp.supernews.com>
Source record: 74266

Hal Rosser wrote:
>
> Apparently it makes more difference to me than it does to you.
> I don't want it digging into the tree branches.
> Nothing wrong with your view - its probably a better-informed view than
> mine - but I'll still use balanced line and I still think baluns are too
> heavy. I'm just hard-headed that way. :-)
>

Unfortunately, using "balanced" (symmetrical) line doesn't prevent or reduce feedline radiation. It's subject to the same effects as coax. The only difference is where it happens. Conducted common mode current is explained in http://eznec.com/Amateur/Articles/Baluns.pdf. As for current induced by mutual coupling, both types of feedline will have the same amount of induced common mode current, due to the same cause and having the same effect.

It's not the geometry of the feedline that causes or prevents feedline radiation.

Roy Lewallen, W7EL

1901. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 07:33:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11bvav1rb4bjec4@corp.supernews.com>
Source record: 74267

Owen wrote:

> . . .
> This leads me to think that measurement of the imbalance current at a
> single point might not give the "big picture". I found scenarios where
> inserting an imperfect balun increased the current at a point (it
> changed the magnitude of the standing wave and more importantly moved
> the current minimum), so I could see someone with a handy-dandy
> current probe measuring such a situation and insisting they have proof
> the baluns don't "work".

This situation lends itself well to modeling, where it's readily illustrated. While it's often difficult to exactly model a given physical setup, modeling allows us to control the variables and clearly see what's happening. We can often apply this knowledge and insight to real situations.

Roy Lewallen, W7EL

1902. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 07:36:04 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <7XIk4+Gkx6vCFA8D@ifwtech.co.uk>
Source record: 74269

Hal Rosser wrote:
>
>"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
>news:qt6ub1tq6825jenh7f49j64tlcnsv10shv@4ax.com...
>> In your original post you said:
>>
>> "The only thing I have against them (current baluns) is
>> They are heavy.
>> and cause the antenna to droop lowering the height of the feedpoint."
>>
>> Anyway, with say fifty pounds of tension just how much drop are you
>> talking about? And what difference does it make?
>>
>
>Apparently it makes more difference to me than it does to you.
>I don't want it digging into the tree branches.

That's a fair point. The sag in a dipole supported only at the ends is very sensitive to the suspended weight in the middle. And if the end supports are trees, the problem can become extreme.

>Nothing wrong with your view - its probably a better-informed view than
>mine - but I'll still use balanced line and I still think baluns are too
>heavy. I'm just hard-headed that way. :-)
>
If sag is a problem, don't use 300 or 450-ohm ladder line. In terms of weight and windage, it is a very bad solution. A much more practical solution is to make your own ultra-lightweight parallel line. The wire can be much thinner than the main antenna, and you can use a spacing of several inches with the absolute minimum number of ultra-lightweight spreaders.

But more important than that, please stop calling it "balanced line". Somehow we have got into the habit of kidding ourselves that parallel-wire line is balanced line. It isn't!

Parallel line does NOT automatically balance itself. It will cheerfully allow unequal currents on the two wires. That's the same as saying it will cheerfully support an unwanted common-mode current (same magnitude and same direction on both wires) in addition to the wanted equal-and-opposite currents.

So parallel line will NOT be balanced line - not until you have done something to MAKE it balanced.

The one best way to create a balanced feedline is to make the layout of the antenna and feedline is completely symmetrical with respect to ground - and that includes the entire run of feedline back to the shack. Unless you have taken the trouble to do that, you WILL have common-mode currents on the line and it WON'T be balanced. The common-mode current may not be large enough to cause a practical problem... but don't ever kid yourself that it isn't there.

Because it's difficult to use a choke balun with parallel-wire line, and because of the weight problem, about the only practical place where you can stop common-mode currents is at ground level. A choke or a link-coupled ATU will force a minimum in the common-mode current at that position; but a quarter-wavelength up the line towards the antenna, it will also force a maximum in the common-mode current (and if the line is long enough, these maxima will repeat every half-wavelength). With parallel-wire feedline, your only defence against that problem is a symmetrical layout.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1903. Butternut HF9V unwanted resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 07:37:35 UTC
From: helthansen@hotmail.com
Message-ID: <5a51d703.0506262337.1b1b33de@posting.google.com>
Source record: 74268

Hi.

My Butternut HF9V has an unwanted resonance on about 48 MHz with the result that the SWR on 50 MHz is not good.
Does anyone have a method to remove this resonance, so the 50 MHz SWR can be good??

Vy 73 de Gorm / OZ6GH.

email: helthansen(at)vip.cybercity,dk

1904. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 08:06:56 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <wV5GouJgO7vCFAMG@ifwtech.co.uk>
Source record: 74271

Chris Trask wrote:
>
> It's not a matter of whether I disagree with him or not. It's a matter
>of him standing on a cybersoapbox and declaring to the world in numerous
>ways that such a thing cannot work and that only his analysis of how it can
>and cannot work is valid. He can't deny that he claimed that it was
>impossible, so now he has to prove that the solution cannot possibly work
>the way that he knows that it cannot work. Whatever.
>

Please skip the personal rhetoric, and tell us how you respond to his
two main technical points about your transformer:

1. That it is simply a 2:1 transformer with an isolated primary and
secondary?

2. That it is not a true transmission line transformer, because your
transmission-line windings are not being fed with opposite polarities
across the *same* end?

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1905. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 08:10:11 UTC
From: Mark
Message-ID: <smcvb1t1mapkk4hlek5d2oqtd1nkqprrv8@4ax.com>
Source record: 74270

On Sat, 25 Jun 2005 21:20:35 GMT, "Richard W. Solomon, W1KSZ"
<w1ksz@earthlink.net> wrote:

>RG-58 ??
>You might as well bury the antenna in the ground !! That is the worst
>stuff you can use.
>
>First, How long a run do you need ?
>Second, What is the connector required on each end ?
>
Each installation will be different, but to use mine as an example, 6
Metre pole, 10 Metres of cable, the antenna connector is a FME and at
the phone end I think it is some sort of Sony Ericsson special (looks
a bit like a SMC)

1906. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 08:25:46 UTC
From: Owen <noone@no.where.net>
Message-ID: <alcvb11keneueo0bd5kdkitjlkup1i24uc@4ax.com>
Source record: 74272

On Mon, 27 Jun 2005 00:33:52 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Owen wrote:
>> . . .
>> This leads me to think that measurement of the imbalance current at a
>> single point might not give the "big picture". I found scenarios where
>> inserting an imperfect balun increased the current at a point (it
>> changed the magnitude of the standing wave and more importantly moved
>> the current minimum), so I could see someone with a handy-dandy
>> current probe measuring such a situation and insisting they have proof
>> the baluns don't "work".
>
>This situation lends itself well to modeling, where it's readily
>illustrated. While it's often difficult to exactly model a given
>physical setup, modeling allows us to control the variables and clearly
>see what's happening. We can often apply this knowledge and insight to
>real situations.
>

Exactly. Nothing I wrote was intended to comment adversely on your
quoted paper, it is interesting and relevant... just a pity the
results tables are not 100% legible.

Modeling shows me the risks of single point measurement, and I agree
entirely with your final statement "While it's often difficult to
exactly model a given physical setup, modeling allows us to control
the variables and clearly see what's happening. We can often apply
this knowledge and insight to real situations". A whole lot of insight
can be gained in a very short time.

Owen

--

1907. Re:the shops have to make a profit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 08:42:32 UTC
From: hugh kirkland <hughblair42@btinternet.com>
Message-ID: <d9oe5nlhv1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74273
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.eme,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment

"Joel Kolstad" <JKolstad71HatesSpam@yahoo.com> wrote in message
news:1181k5f5tagrv79@corp.supernews.com...
> "HAO'S" <spam@hotmail.com> wrote in message
news:d5g8tk$114$1@nic.grnet.gr...
> > what a rip off here in europe adapters go for 5-8euros!
> > is this a radio shack thing (scam?).
>
> It's not uncommon for many stores in the US to have large mark-ups on what
are
> really cheap accessories. For instance, in many of the big electronics
> stores, you'll see USB cables for, e.g., $9.95 when they're more like a
couple
> of bucks mail order! This is something of a silly game, but given the
> significant competition for the 'big ticket' items (computers, printers,
TVs,
> etc.), you can see why they do this.
>
> Keep in mind that this is the same country where coffee shops selling
lattes
> for $3/cup are still multiplying like rabbits. :-)
>
> ---Joel Kolstad
>
>

1908. Re: Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 11:39:31 UTC
From: Buck <iam@this.site>
Message-ID: <l5pvb1t0rvjtheapdbncqegltdqkl59tuh@4ax.com>
Source record: 74274

On Fri, 24 Jun 2005 11:01:20 -0400, Bob B. <barn@newsguy.com> wrote:

>Hello...
>
>Will an antenna rotator like a Radio Shack or Channel Master work if
>hung upside-down from a roof beam, or should I try to come up with a
>way to secure it to the attic floor?
>
>I know rotators are designed to handle a certain weight, but I can't
>guess at what they'd do with a "negative" weight...
>
>The antenna I'm looking to rotate is a Channel Master 8-bay bowtie.
>(CM4228)
>
>Thanks,
>-Bob-
>N1GYL

Chances are that the bearings are created for a right-side up force
and there will be insufficient bearings for upside down operation.

If your attic is like mine, you may consider getting a board to cross
a couple of rafters and mount the rotor on the floor from that.

Good luck.

73
N4PGW
Buck
--
73 for now
Buck
N4PGW

1909. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 11:43:18 UTC
From: Buck <iam@this.site>
Message-ID: <iepvb1lvvrbsq1uc7dj0gpk9fdstm52pd4@4ax.com>
Source record: 74175

On Sun, 26 Jun 2005 23:56:09 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>
>"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
>news:qt6ub1tq6825jenh7f49j64tlcnsv10shv@4ax.com...
>> In your original post you said:
>>
>> "The only thing I have against them (current baluns) is
>> They are heavy.
>> and cause the antenna to droop lowering the height of the feedpoint."
>>
>> Anyway, with say fifty pounds of tension just how much drop are you
>> talking about? And what difference does it make?
>>
>
>Apparently it makes more difference to me than it does to you.
>I don't want it digging into the tree branches.
>Nothing wrong with your view - its probably a better-informed view than
>mine - but I'll still use balanced line and I still think baluns are too
>heavy. I'm just hard-headed that way. :-)
>

You may choose to use the balun near the ground where its weight can
be supported and you can use coax to bring in the lead from outside.
The piece of balanced line will give you low loss to the balun and the
loss from the coax will be minimum due to the short length.

--
73 for now
Buck
N4PGW

1910. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 11:48:31 UTC
From: Buck <iam@this.site>
Message-ID: <3qpvb19jcrkhqli34nbqt055qm9qejru15@4ax.com>
Source record: 74176

On Mon, 27 Jun 2005 03:41:01 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

> I came across a very
>interesting 1:1 design that uses two equal length pieces of coax that would
>each be less than an eighth of a wavelength long and which has a very wide
>bandwidth. I copied the schematic (which has a slight error) and the photo
>to a single sheet PDF file if anyone's interested.

I would be interested. I can leave an address or you can get it from
QRZ.

thanks

--
73 for now
Buck
N4PGW

1911. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 11:54:23 UTC
From: Owen <noone@no.where.net>
Message-ID: <63qvb1tj0t9sagasb29ms1086qst0e594n@4ax.com>
Source record: 74177

On Sat, 25 Jun 2005 15:47:30 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Owen wrote:
>> Roy Lewallen wrote:
>>>. . .
>>> See above comments. Routing the feeder at right angles to the antenna
>>> doesn't eliminate current due to mutual coupling, and neither does a
>>> feedpoint balun.
>>>
>>
>> Roy, doesn't this suggest that there is benefit in twisting an open wire
>> feedline to attempt to expose each conductor to similar coupling to the
>> external fields. Clearly the benefit will be better for a higher twist
>> rate. Whilst achieving sufficient twist rate with a wide air-spaced line
>> may be impractical, it is probably quite realisable with ladder line
>> (notwithstanding the downsides of ladder line).
>
>No. The problem isn't that the coupling is different to each conductor
>of the transmission line, it's that the coupling is different from the
>transmission line to each side of the antenna. Twisting the line won't
>change the coupling of this common mode current by any appreciable
>amount. Unfortunately.

Yes, of course. Twisting helps differential coupling (which in most
cases of sound installationwill not be an issue by virtue of the
relatively large distance from any other conductors to the feedline),
but not common mode.

Owen
--

1912. Re: offset diople antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 11:57:45 UTC
From: Owen <noone@no.where.net>
Message-ID: <7dqvb15ls43gltfa65ir7j6nabbeqg1ct3@4ax.com>
Source record: 74178

On Sat, 25 Jun 2005 15:47:30 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Owen wrote:
>> Roy Lewallen wrote:
>>>. . .
>>> See above comments. Routing the feeder at right angles to the antenna
>>> doesn't eliminate current due to mutual coupling, and neither does a
>>> feedpoint balun.
>>>
>>
>> Roy, doesn't this suggest that there is benefit in twisting an open wire
>> feedline to attempt to expose each conductor to similar coupling to the
>> external fields. Clearly the benefit will be better for a higher twist
>> rate. Whilst achieving sufficient twist rate with a wide air-spaced line
>> may be impractical, it is probably quite realisable with ladder line
>> (notwithstanding the downsides of ladder line).
>
>No. The problem isn't that the coupling is different to each conductor
>of the transmission line, it's that the coupling is different from the
>transmission line to each side of the antenna. Twisting the line won't
>change the coupling of this common mode current by any appreciable
>amount. Unfortunately.

Yes, of course. Twisting helps reduce differential coupling (which in
most cases of sound installation will not be an issue by virtue of the
relatively large distance from any other conductors to the feedline),
but not common mode.

Owen
--

1913. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:13:10 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119874390.757705.302360@g44g2000cwa.googlegroups.com>
Source record: 74179

Please don't consider Chris as speaking for me, or accurately presenting everything I said.

We all know how easy it is to lift selective portions of long exchanges and make things sound any way we like.

The original topic was Sevik's 4:1 balun on a single core, where that balun is made up of two 1:1 ratio choke baluns with parallel inputs and series outputs. The imputs are excited in a transmission line mode (differentially) and the outputs in series. The balun cores provide only ground isolation through common mode impedance. I have a similar balun built by MFJ, and it has terrible balance. It actually is an offset voltage voltage balun.

Early on I specifically excluded transformer-type baluns.

I think the problem is Chris thinks we can feed a transmission line end-to-end on a single conductor and contain energy within the line area. As far as I see, there is nothing causing the line to operate in a TEM mode, but it behaves only as a simple 1:1 transformer.

I beleive this is at the root of the poor efficiency and poor SWR bandwidth of Chris' "balun".

The bandwidth problem would be caused because a transmission line in TEM mode would have distributed capacitance cancelling series inductance of the leads, a transformer winding does not. This also gives rise to the distributed capacitance tending to pull the load side to the voltage balance of the source winding, causing a problem with high frequency balance.

The isolation transformer method has the advantage of much better low frequency isolation and allowing a single core, but falls on its face for SWR response, power handling for a given core size, and high frequency balance and common mode isolation.

I think the real argument or disagreement is if the lines in a parallel or coaxial wound primary and secondary like Chris used are in TEM mode, or simply acting as a transformer. My contention is it is a transformer, and those who think any two parallel or concentric conductors when fed start-to-finish or tend-to-end on one conductor forces a TEM mode are not viewing the system correctly.

It will be interesting to see what others think. I have a partial analysis on my web site in a 4:1 balun analysis , and I'll be adding more information to that as time permits.

Please, just the technical facts. I'll speak for myself.

73 Tom

1914. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:17:52 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1119874672.517199.160770@g44g2000cwa.googlegroups.com>
Source record: 74180

there are two wires one for feed the other for ground, should they have
the same length?
http://www.geocities.com/aezzat3/monopole.jpg

1915. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:31:48 UTC
From: Dave <noone@nowhere.com>
Message-ID: <F6adnTzJRo4rbCLfRVn-pQ@crocker.com>
Source record: 74181

monopole? you are looking at the end of a piece of coax cable that has been trimmed to show the internal structure.

"redhat" <aezzat1@gmail.com> wrote in message news:1119874672.517199.160770@g44g2000cwa.googlegroups.com...
> there are two wires one for feed the other for ground, should they have
> the same length?
> http://www.geocities.com/aezzat3/monopole.jpg
>

1916. Re: momentum"Sloshing" EM Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:38:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bff42e$1_1@spool9-west.superfeed.net>
Source record: 74182

Richard Harrison wrote:
> Bob, W9MDK wrote:
> "The above paragraph, however, was a rather difficult to ubderstand
> reading,---."
>
> I responded that the load would not accept volts and amps in a ratio
> which does not fit its load impedance. Perhaps we should reason together
> some more. The transmission line delivers power to the load at its Zo.
> When the load impedance is different, there is a surplus of either volts
> or amps. The surplus nust be reflected because the load can`t take it.
> That`s all.

Another way of saying the same thing:

The mismatched load rejects voltage in the form of Vref and rejects
current in the form of Iref. Thus Vload is the phasor sum of Vfor
and Vref. Iload is the phasor sum of Ifor and Iref. The
result is that (Vfor+Vref)/(Ifor+Iref) = Zload.

If Z0 and Zload are purely resistive and Zload > Z0 then:

Zload = (Vfor+Vref)/(Ifor-Iref)

Vfor and Vref are in phase, Ifor and Iref are 180 deg out of phase,
because we need a higher voltage and a lower current for RL > Z0.

If Z0 and Zload are purely resistive and Zload < Z0 then:

Zload = (Vfor-Vref)/(Ifor+Iref)

Vfor and Vref are 180 deg out of phase, Ifor and Iref are in phase,
because we need a lower voltage and a higher current for RL < Z0.
--
73, Cecil http://www.qsl.net/w5dxp

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1917. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:42:02 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1119876122.864916.190150@g14g2000cwa.googlegroups.com>
Source record: 74183

yes, can't i use a coax as an antenna by trimming its end at the
calculated length lamda=C/f where for example length of wire = 1/8
lamda

1918. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:43:08 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119876188.153443.74740@g47g2000cwa.googlegroups.com>
Source record: 74184

By the way, the reason I think this issue is important is Sevik claims two transmission line baluns (excited as real transmission lines, not as isolation transformers) makes a good single core current balun. Not only are people doing that for themselves, commercial people (like MFJ) have copied the idea. They then advertise a single corev TL 4:1 balun as a "4:1 current balun" to consumers.

It seems once something gets into print, it is accepted as fact even when incorrect.

I'd like to clarify Sevik used transmission line mode, not transformer mode coupling, in his single core 4:1 current balun. My contention is it is impossible to build a 4:1 current balun on a single core unless it is a primary-secondary isolation transformer, and an isolation transformer would be a very limited performance balun compared to a properly constructed transmission line balun.

73 Tom

1919. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:45:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bff5c9$1_1@spool9-west.superfeed.net>
Source record: 74185
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Ed wrote:
> As far as ANY tower can be blown down.... not really true for a properly
> engineered and maintained structure.

I saw on The National Geographic Channel yesterday where
all towers left standing will be blown down when our sun
explodes about five billion years from now. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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1920. Re: Caculating VSWR from rho and rho from VSWR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:53:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bff7db$1_1@spool9-west.superfeed.net>
Source record: 74186

Walter Maxwell wrote:

> "Cecil Moore" <w5dxp@hotmail.com> wrote:
>>... Ramo & Whinnery's assertion
>>in _Fields_and_Waves_... 2nd edition, page 291 " .. we are
>>often most interested in the ratio of power in the reflected
>>wave to that in the incident wave, and this ratio is given
>>by the square of the magnitude of [rho], as can be shown by
>>considering the Poynting vectors: Pz-/Pz+ = |rho|^2 (3)"
>>
>>Note the plural "Poynting vectors", Pz- for reflected power
>>and Pz+ for forward power.
>
> Cecil, concerning Poynting vectors, may I refer you to the last paragraph of
> Page 8-3 in Reflections 1, or the last paragraph beginning on Page 8-2 of
> Reflections 2.

Thanks Walt, it's been about 15 years since I first read
that short and sweet chapter in "Reflections 1".
--
73, Cecil http://www.qsl.net/w5dxp

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1921. Re: Pizza, New Great-Circle Plotting Program

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 12:58:53 UTC
From: W8LNA <W8LNA@arrl.net>
Message-ID: <hKSve.298$pg.197@news01.roc.ny>
Source record: 74187
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave

K7JEB wrote:
> On 26 Jun 2005 06:03:12 -0700, "CAM" <w5dxp@arrl.net> wrote:
>
>
>>K7JEB wrote:
>>
>>>Oh, yeah, that name. Bring up an azimuth plot of the
>>>entire world and it hits you in the eye like a big
>>>pizza pie -- that's amorï¿½!
>
>
>>Just don't expect to find it by doing a web search
>>for "pizza". :-)
>
>
> 'pizza + great + circle' works well, though.
>
> k7jeb

Or you could go here:
http://tonnesoftware.com/pizza.html

1922. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:03:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bffa2b$1_2@spool9-west.superfeed.net>
Source record: 74188

Chris Trask wrote:
> Tom is absolutely desparate to prove to the world that you cannot under
> any circumstances make a 4:1 current balun on a single core.

Personalities aside, 4:1 single core Guanella baluns are covered
on pages 9-13 to 9-21 in "Transmission Line Transformers", by
Jerry Sevick.
--
73, Cecil http://www.qsl.net/w5dxp

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1923. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:28:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42bfffec$1_1@spool9-west.superfeed.net>
Source record: 74189

W8JI wrote:
> I'd like to clarify Sevik used transmission line mode, not transformer
> mode coupling, in his single core 4:1 current balun. My contention is
> it is impossible to build a 4:1 current balun on a single core unless
> it is a primary-secondary isolation transformer, and an isolation
> transformer would be a very limited performance balun compared to a
> properly constructed transmission line balun.

Just so we know which Sevik design you are talking about, is it
Fig 9-8(B) of "Transmission Line Transformers"?
--
73, Cecil http://www.qsl.net/w5dxp

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1924. Re: Solarcon A99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:35:50 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1119879350.466016.30780@g49g2000cwa.googlegroups.com>
Source record: 74191

Not for certain but don't you put a U-connector or a circle connector
crimped onto the braid of the coax and attach it with a screw and do
the same with the center braid?

1925. Re: Solarcon A99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:35:55 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1119879355.276448.170160@g44g2000cwa.googlegroups.com>
Source record: 74190

Not for certain but don't you put a U-connector or a circle connector
crimped onto the braid of the coax and attach it with a screw and do
the same with the center braid?

1926. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:37:52 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119879472.894104.218720@g49g2000cwa.googlegroups.com>
Source record: 74192

Page 24 of third printing 2002.

Single core Guanella balun.

1927. Re: Attic antenna: rotator upside-down work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:49:27 UTC
From: "Bob B." <barn@newsguy.com>
Message-ID: <tavvb1l0pvir6s9vqfj5rd22ppcf6lpvrb@4ax.com>
Source record: 74195

Thanks for the responses, everyone! I'm going to explore the
possibility of attaching to a floor joist, though the suggestion of
getting the rotator from Australia wasn't half-bad!

btw, Blue Dawg,

Some links to this particular antenna:

sold here:
http://www.solidsignal.com/prod_display.asp?main_cat=3&CAT=&PROD=ANC4228

UHF TV antenna comparison chart
(I like the fact that the CM4228 actually has "some" gain for VHF
9-13)
http://www.hdtvprimer.com/ANTENNAS/comparing.html

1928. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 13:55:04 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11c01a1csseel48@corp.supernews.com>
Source record: 74193

redhat wrote:
> yes, can't i use a coax as an antenna by trimming its end at the
> calculated length lamda=C/f where for example length of wire = 1/8
> lamda
>
Yes But unless lambda is very short it would be a waste of time and a lot of money compared to using the coax for it's intended purpose and an attached antenna made from separate materials.

Dave WD9BDZ

1929. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:02:22 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1119880942.145992.133630@f14g2000cwb.googlegroups.com>
Source record: 74194

yes, almbda is short , so should the two wires have the same length?
the ground is connected to the circuit's ground but what about the
other end of the wire?

1930. Re: wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:09:13 UTC
From: Dave <noone@nowhere.com>
Message-ID: <RdidnWB0kKsWlV3fRVn-rA@crocker.com>
Source record: 74196

yes, you can do that. normally you just strip the shield back and leave 1/4 wave of the center conductor exposed. that makes a reasonable 1/2 wave dipole as long as the shield is at least 1/4 wave long. you can also add aluminum foil or fold the shield back for 1/4 wavelength over the insulation for slightly better results.

"redhat" <aezzat1@gmail.com> wrote in message news:1119876122.864916.190150@g14g2000cwa.googlegroups.com...
> yes, can't i use a coax as an antenna by trimming its end at the
> calculated length lamda=C/f where for example length of wire = 1/8
> lamda
>

1931. Re: 2 greatest Antennas I have ever had

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:10:40 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <ANTve.321$U61.121@newssvr11.news.prodigy.com>
Source record: 74197

How is the feedline dressed, paralleling the lower vertical half of the "C",
or extending horizontally and if so how long is the run. Also you didn't
state how close the 1/2 wave section was to the tree but I assume only
inches. Is the tree dead or live and do you notice any loss of radiation on
the shaded side vs. the open side?
tnx

--

73
Hank WD5JFR
<RoyaltyFreePhotoMart@gmail.com> wrote in message
news:1119815937.147508.13610@o13g2000cwo.googlegroups.com...
>I have 2 antennas that I an very happy with. These are by far the best
> preforming antennas I have ever owned.
>
> The first is a 17 METER antenna unlike anything you have ever seen or
> heard of before.
>
> It is a 17 METER half wave dipole that is constructed in the shape of
> the letter "C". I first saw this design in the former East German
> sector about a year after the Berlin wall came down. I happened upon a
> deserted East German military base that had this huge antenna farm. I
> thought about it for a number of years and then began experimenting
> with it...and came up with a real winned.
>
> As I said, it is a half wave dipole that is constructed in the shape of
> the letter "C". The vertical part of the letter "C" is 1/4 wave length
> attached to a tree with couple screw-in ceramic standoff insulators I
> got at Home Depot. The upper and lower horizontal parts of the letter
> "C" and 1/8 wave length. You feed it in the middle of the vertical
> part of the letter "C" with 50 ohm coax. It is a perfect 1 to 1 match.
>
> Now, this is the IMPORTANT PART and the secret of it's success. YOU
> MOUNT THE LOWER HORIZONTAL SECTION OF THE LETTER "C" SO THAT IT IS 24
> INCHES OFF THE GROUND. This is extremely important because it give is
> a very low angle or radiation.
>
> ALSO IMPORTANT. Construct this antenna with the largest gauge of
> stranded wire you can find. Go to the local hardware store and buy the
> thickest stranded wire you can get. Or, you can also use 1/8 or 3/8
> copper tubing. You want to have as much surface area as possible
>
>
> OK, the SECOND GREAT ANTENNA that I have is a Windom. Now, don't

> laugh, but this is the 10 thru 40 meter Windom THAT A GUY ON EBAY SELLS
> FOR $20. I have the thing 35 feet in the air. Feed it directly with
> 50 ohm coax.
>
> The guy down the street has a G5RV (about $75 or $85) at 50 feet and a
> Force 12 vertical dipole (about $300) and it blows both of them away.
> I work stuff that he can't even hear. We both have similar equipment.
> And being in the same neighborhood, our locations are similar.
>
> That Windom is the best $20 investment I ever made.
>
> Bill Hansen
>

1932. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:12:52 UTC
From: Rob <nospam@nospam.org>
Message-ID: <BPTve.3202$mK5.183751@news20.bellglobal.com>
Source record: 74199
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Charlie,

It's very obvious a lot of hard work went into that project, this makes it even harder to face criticism, but don't lose sight of the fact that it's constructive (even though it's deteriorating rapidly.) There really are numerous problems with your installation, and some will inevitably lead to catastrophic failure and potential loss of life.

Be careful around that thing until you can fix it up. In the least, install dedicated anchor points set in a sizeable concrete base, shorten your top mast and get a thrust bearing up there. Put at least 1/3 of your rotatable mast below the bearing.

This is by no means a complete list, but I think the majority of readers will agree it's a good place to start.

Rob

1933. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:22:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9p23v$1oi$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74198

> It seems once something gets into print, it is accepted as fact even
> when incorrect.
>
==========

Especially on this newsgroup.
At least until it is refuted.
How can one distinguish between fact and fiction?
The gift of the gab and length of diatribe appear to predominate.

1934. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:27:27 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <8764vz27u8.fsf@qmc.ph.msstate.edu>
Source record: 74200

>how many sins can i count...
>1. guyed to trees
>2. guyed to power pole
>3. saddled lots of dead horses
>4. two different tower types mixed
>5. doesn't look like a proper base... at least not to rohn specs.
>6. that mast sure does look too long above the kind of tiny tube top.
>7. no thrust bearing
>8. too close to power line? probably since its guyed to a power pole.

9. no thimbles on the guy wire connections. Wonder how long before those
10. judging by how the loop of guy wire through the turnbuckle is still
fairly round, I'd bet the tension on the guy wires is too slack. Should
have 400 lbs per guy for 3/16" EHS on Rohn 25.
11. no safety wire through the turnbuckles.

At least the loading (antennas) are pretty light.

Tor
N4OGW

1935. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:38:35 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <LbUve.10022$jX6.192@newsread2.news.pas.earthlink.net>
Source record: 74201

John,
Yes, that's very nice. A pair of trifilar windings on a single core.
That's a variation of a 1:1 transmission line balun that I found in a
textbook. I've put the schematic and photo in a PDF file on my web page at:

http://www.home.earthlink.net/~christrask/EM1to1Balun.PDF

I'm qite certain that the two dots connecting the outer conductors to the
shield box are in error as in the photo the outer insulating jacket is not
broken. And those connections do not make sense, at least not immediately,
as the voltages and currents at that point are dissimilar. Also, there
should only be the one ground connection at the near end of the second
cable.

Seems to me that you could use this approach to make a nice, inexpensive
and lightwieght balun with just two 4-foot pieces of coax. I would
certainly like someone to try that and let us know how well it works.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"John Smith" <assemblywizard@gmail.com> wrote in message
news:RzMve.98$Hk6.2623506@news.sisna.com...
> Chris:
>
> Well, your design certainly started me thinking. So, I began winding...
> on a single core--of course...
>
> I am NOT claiming this is unique, but it works better than the design
> you presented, at least, ON my sw receiver...

>
> ... take a look at it here:
> http://blake.prohosting.com/mailguy2/balun2.JPG
>
> Warmest regards,
> John
>
>
> "Chris Trask" <christrask@earthlink.net> wrote in message
> news:nKLve.10037$hK3.6644@newsread3.news.pas.earthlink.net...
> > Tom is absolutely desparate to prove to the world that you cannot
> > under
> > any circumstances make a 4:1 current balun on a single core. So, he
> > tests
> > the single core Guanella balun with the usual test for a current balun
> > (short the outputs to gound one at a time and see if the input return
> > loss
> > changes) knowing fully well that the Guanella 4:1 current balun on a
> > single
> > core will only work with floating loads.
> >
> > He is now equally desparate to prove that since nobody but he
> > understands transmission line transformers it is impossible for anyone
> > else
> > to understand or apply them. He also fails completely in
> > understanding that
> > the ferrite used in transmission line transformers is to improve the
> > low
> > frequency end by making the transmission line appear longer.
> >
> > He's truly amazing, and he is mad as hell. He claims that it is
> > absolutely impossible to make a 4:1 current balun on a single core
> > with a
> > pair of 1:1 transformers (of any kind whatsoever), while the Guanelle
> > 4:1
> > current balun has a pair of 1:1 transformers on a single core right in
> > front
> > of him. He also makes numerous other outrageous claims that defy all
> > manner
> > of electronics theory.
> >
> > Here are some of his more memorable quotes along with the URLs for
> > the
> > QRP-L archives so you can see that he is not taken out of context,
> > contrary
> > to what he says:
> >
> > "...it is impossible to build a 4:1 ratio current balun that
> > uses two 1:1 baluns on a single core."
> >

> > which in the archives at:
> >
> > http://mailman.qth.net/pipermail/qrp-l/20050612/020884.html
> >
> > This is a good one:
> >
> > "It's well established any balun made up of series / parallel
> > transmission lines requires different voltages from the start
> > to finish of each transmission line. "
> >
> > which in the archives at:
> >
> > http://mailman.qth.net/pipermail/qrp-l/20050621/021331.html
> >
> > and the following:
> >
> > "It is physically impossible to build a transmission line
> > current balun other than 1:1 on a single core when the
> > windings have mutual coupling through the core."
> >
> > which is in the archives at:
> >
> > http://mailman.qth.net/pipermail/qrp-l/20050622/021442.html
> >
> > as well as:
> >
> > "It's well established any balun made up of series / parallel
> > transmission lines requires different voltages from the
> > start to finish of each transmission line. You can find it
> > in voltage maps of the balun."
> >
> > which is the archives at:
> >
> > http://mailman.qth.net/pipermail/qrp-l/20050621/021331.html
> >
> > and additionally:
> >
> > "It is quite possible to build any reasonable ratio of
> > conventional transformer (as long as it is the square of
> > turns ratio) on a single core. It is quite impossible to
> > build a current balun of any ratio other than 1:1 using
> > multiple transmission line transformers on a single core
> > unless flux leakage between transmission lines is terrible."
> >
> > which is in the archives at:
> >
> > http://mailman.qth.net/pipermail/qrp-l/20050622/021408.html
> >
> > as well as:
> >

> > "It impossible to build anything but a 1:1 ratio current
> > balun when multiple transmission line transformers are
> > placed on a single core. The voltage map shows that, as does
> > the basic electrical rule of current baluns that all
> > currents in all windings must sum to zero under all load
> > balance conditions."
> >
> > which is in the archives at:
> >
> > http://mailman.qth.net/pipermail/qrp-l/20050622/021416.html
> >
> > There is no room for ambiguity here. As you can see, he is making
> > unsubstantiated claims of "it is impossible" and "it is well
> > established"
> > that have no basis in fact. The problem here is really that I solved
> > the
> > problem of the single-core 4:1 current balun and he is mad as hell
> > because
> > in his world such a thing cannot possibly exist. So, he makes up
> > additional
> > new electronics theories to prove that everything you know is wrong.
> >
> > Chris
> >
> > ,----------------------. High Performance Mixers and
> > / What's all this \ Amplifiers for RF Communications
> > / extinct stuff, anyhow? /
> > \ _______,--------------' Chris Trask / N7ZWY
> > _ |/ Principal Engineer
> > oo\ Sonoran Radio Research
> > (__)\ _ P.O. Box 25240
> > \ \ .' `. Tempe, Arizona 85285-5240
> > \ \ / \
> > \ '" \ IEEE Senior Member #40274515
> > . ( ) \
> > '-|)__| :. \ Email: christrask@earthlink.net
> > | | | | \ '. http://www.home.earthlink.net/~christrask
> > c__; c__; '-..'>.__
> >
> > Graphics by Loek Frederiks
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:wWKve.85$yA4.2445335@news.sisna.com...
> >> Chris:
> >>
> >> You do not agree with any of his analysis?
> >>
> >> You do not think this is more of an isolation transformer than a
> >> balun?
> >> If not, how do you claim a "transmission line" quality/effect to it?

> >>
> >> And, you did notice an insertion loss from this "device", didn't you?
> >>
> >> John
> >>
> >> "Chris Trask" <christrask@earthlink.net> wrote in message
> >> news:ftKve.9674$jX6.5269@newsread2.news.pas.earthlink.net...
> >> > Be sure to print it out as it changes almost daily. Very
> >> > strange,
> >> > indeed.
> >> >
> >> > --
> >> > Chris
> >> >
> >> > ,----------------------. High Performance Mixers and
> >> > / What's all this \ Amplifiers for RF Communications
> >> > / extinct stuff, anyhow? /
> >> > \ _______,--------------' Chris Trask / N7ZWY
> >> > _ |/ Principal Engineer
> >> > oo\ Sonoran Radio Research
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> >> > \ \ .' `. Tempe, Arizona 85285-5240
> >> > \ \ / \
> >> > \ '" \ IEEE Senior Member #40274515
> >> > . ( ) \
> >> > '-|)__| :. \ Email: christrask@earthlink.net
> >> > | | | | \ '.
> >> > http://www.home.earthlink.net/~christrask
> >> > c__; c__; '-..'>.__
> >> >
> >> > Graphics by Loek Frederiks
> >> >
> >> > "John Smith" <assemblywizard@gmail.com> wrote in message
> >> > news:E0Bve.17$8L.379969@news.sisna.com...
> >> >> A very interesting analysis of this design can be found at:
> >> >> http://www.w8ji.com/balun_single_core_41_analysis.htm
> >> >>
> >> >> ... for those who have not yet seen it.
> >> >>
> >> >> John
> >> >>
> >> >> "Chris Trask" <christrask@earthlink.net> wrote in message
> >> >> news:eTdue.7890$jX6.6278@newsread2.news.pas.earthlink.net...
> >> >> > In recent days on the QRP-L mailing list, the following
> >> >> > remarks
> >> >> > were
> >> >> > made by Tom Rauch, W8JI regarding the design of 4:1 current
> >> >> > baluns:
> >> >> >
> >> >> > "...it is impossible to build a 4:1 ratio current balun that

> >> >> > uses two 1:1 baluns on a single core."
> >> >> >
> >> >> > and:
> >> >> >
> >> >> > "It's well established any balun made up of series / parallel
> >> >> > transmission lines requires different voltages from the start
> >> >> > to finish of each transmission line. "
> >> >> >
> >> >> > I have devised and modeled a 4:1 current balun using two 1:1
> >> >> > baluns
> >> >> > on
> >> >> > a
> >> >> > single core, and have tested a fully functional prototype. The
> >> >> > design
> >> >> > can
> >> >> > be built without any core, if so desired. The full disclosure
> >> >> > of
> >> >> > this
> >> >> > design with all theory, references, and test results can be
> >> >> > obtained
> >> >> > from my
> >> >> > web page at:
> >> >> >
> >> >> > http://www.home.earthlink.net/~christrask/Trask4to1Balun.pdf
> >> >> >
> >> >> > The design proves beyond all reasonable doubt that the above
> >> >> > statements to
> >> >> > the contrary are, to put it mildly, gravely in error.
> >> >> >
> >> >> > Chris
> >> >> >
> >> >> > ,----------------------. High Performance Mixers and
> >> >> > / What's all this \ Amplifiers for RF
> >> >> > Communications
> >> >> > / extinct stuff, anyhow? /
> >> >> > \ _______,--------------' Chris Trask / N7ZWY
> >> >> > _ |/ Principal Engineer
> >> >> > oo\ Sonoran Radio Research
> >> >> > (__)\ _ P.O. Box 25240
> >> >> > \ \ .' `. Tempe, Arizona 85285-5240
> >> >> > \ \ / \
> >> >> > \ '" \ IEEE Senior Member #40274515
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> >> >> > | | | | \ '.
> >> >> > http://www.home.earthlink.net/~christrask
> >> >> > c__; c__; '-..'>.__
> >> >> >
> >> >> > Graphics by Loek Frederiks
> >> >> >

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>

1936. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 14:56:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c014b2$1_2@spool9-west.superfeed.net>
Source record: 74202

Reg Edwards wrote:
> How can one distinguish between fact and fiction?

The Scientific Method comes to mind.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1937. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:02:47 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119884567.446695.145080@g44g2000cwa.googlegroups.com>
Source record: 74203
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Hmm Well considering he is the former AB7SL it wouldnt surprise me this
is
his creation. If you do a net search on good ole charlie you will find
lots of things.

Keep your head down.

1938. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:05:18 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <OAUve.10199$hK3.9836@newsread3.news.pas.earthlink.net>
Source record: 74204

>
> Now, given that a "transmission line transformer," as distinct from a
> conventional transformer built using transmission lines, does not
> support flux in the ferrite; how is it that the ferrite makes the line
> appear longer?
>

The ferrite makes the line look longer by way of it's permeability, but
that's obvious and I think I'm not understanding your question correctly.
Dye and Granberg cover that in their Motorola application notes as well as
in the section on TLTs in their book "Radio Frequency Transistors:
Principles and Practical Applications." They briefly mention in the book
that the coupling takes place in the magnetic material only at low
frequencies. This effectively makes the line(s)look longer as you are no
longer functioning as a TLT but instead as a flux-coupled transformer, and
the line length is now a function of the physical length of the conductors
and the permeability of the material. In practice a thumbnail approximation
is generally:

L' = L x sqrt(u)

>
> Second, if this were to occur (through the design of a "transmission
> line transformer" that was a voltage BalUn); what is the advantage of
> longer lines?
>

It's a matter of what's practical. If you were to use very short lines
along with a high permeability material such as Fair-Rite 73, you may
encouter a region where the lines are too short to couple properly and the
magnetic material is well above the ferroresonance frequency. And even when
you do get into the flux-coupling m&#65533;de, you still need to have sufficient
line in order to obtain decent coupling at lower frequencies. So, you have
to balance the two (line length and magnetic material) in order to obtain a
wideband transformer that has consistent performance over the desired
frequency range.

I hope I've covered everything here adequately.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer

oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
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\ '" \ IEEE Senior Member #40274515
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'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:oo6vb1dhqt02ap5ii53us4k6v7jnq3uiq5@4ax.com...
> On Mon, 27 Jun 2005 05:01:07 GMT, "Chris Trask"
> <christrask@earthlink.net> wrote:
>
> >He also fails completely in understanding that
> >the ferrite used in transmission line transformers is to improve the low
> >frequency end by making the transmission line appear longer.
>
> Hi Chris,
>
> Now, given that a "transmission line transformer," as distinct from a
> conventional transformer built using transmission lines, does not
> support flux in the ferrite; how is it that the ferrite makes the line
> appear longer?
>
> Second, if this were to occur (through the design of a "transmission
> line transformer" that was a voltage BalUn); what is the advantage of
> longer lines?
>
> 73's
> Richard Clark, KB7QHC

1939. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:06:13 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <FBUve.10200$hK3.3221@newsread3.news.pas.earthlink.net>
Source record: 74205

Yes, as well as elsewhere.

Chris

```
,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
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\ '" \ IEEE Senior Member #40274515
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'-| )__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__
```

Graphics by Loek Frederiks

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42bffa2b$1_2@spool9-west.superfeed.net...
> Chris Trask wrote:
> > Tom is absolutely desparate to prove to the world that you cannot under
> > any circumstances make a 4:1 current balun on a single core.
>
> Personalities aside, 4:1 single core Guanella baluns are covered
> on pages 9-13 to 9-21 in "Transmission Line Transformers", by
> Jerry Sevick.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
=----

1940. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:13:05 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <5IUve.10028$jX6.8696@newsread2.news.pas.earthlink.net>
Source record: 74206

Whoa, let's reign back here a bit. The test was still for a 200-ohm load, but it was made asymmetric (150-ohms and 50-ohms) in order to accomodate the 50-ohm network analyzer. The 6dB loss is a result of the voltage at the test port being Vin/2, but the voltage at the other output port with the 150-ohm resistor is 3Vin/2, so there is no excessive loss through the balun. In actuality, there is less than 0.1dB of power loss in the prototype that I made. The test was made to determine if the balance was correct.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
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\ \ .' `. Tempe, Arizona 85285-5240
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\ '" \ IEEE Senior Member #40274515
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'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:cb7vb15dk654i4385ls5uth9aa4skg502m@4ax.com...
> On Mon, 27 Jun 2005 05:16:08 GMT, "Chris Trask"
> <christrask@earthlink.net> wrote:
>
> >The low frequency
> >3dB point is around 600kHz and the high frequency 3dB point is beyond
> >500MHz.
>
> Hi Chris,
>
> If this relates in some way to your published return loss
> characteristic, then I have to offer that it is hardly representative
> of the best of BalUns to offer. Sevick offers at least half a dozen
> with scads less loss and operating flat to within less than a fraction
> of a dB.
>

> Now by your tying in an implicit BW from 600KHz to 500MHz, this comes
> too close to brightening your teeth and improving your sex life.
> Within 3dB? Given your design, and it being voltage based, supporting
> flux through currents driving the core, 3dB would be a hell of a dummy
> load and hardly a crowning achievement.
>
> 73's
> Richard Clark, KB7QHC

1941. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:14:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c018be_1@spool9-west.superfeed.net>
Source record: 74207

W8JI wrote:
> Page 24 of third printing 2002.
> Single core Guanella balun.

Unfortunately, I don't have that edition.
Is it four windings?

1---/////////---2
3---/////////---4
5---/////////---6
7---/////////---8

with (1 to 5) and (3 to 7) as the unbalanced input,
(4 to 6) tied together, and (2) and (8) as the balanced
output?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1942. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:19:19 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <871x6n25fs.fsf@qmc.ph.msstate.edu>
Source record: 74208

>9. no thimbles on the guy wire connections. Wonder how long before those
>10. judging by how the loop of guy wire through the turnbuckle is still
>fairly round, I'd bet the tension on the guy wires is too slack. Should
>have 400 lbs per guy for 3/16" EHS on Rohn 25.
>11. no safety wire through the turnbuckles.

got cut off...

9. no thimbles on the guy wire connections. Wonder how long before those
guy wire loops crimp and break.

With such a small antenna load, I don't think a thrust bearing is
really needed.

Tor
N4OGW

1943. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:33:55 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <j070c1ldm7ut41fkde08amt600n6snodnu@4ax.com>
Source record: 74209

On 27 Jun 2005 08:02:47 -0700, "Rick Scott" <RickN7HJ@gmail.com>
wrote:

>Hmm Well considering he is the former AB7SL it wouldnt surprise me this
>is
>his creation. If you do a net search on good ole charlie you will find
>lots of things.
>
>Keep your head down.

ohhhh, that guy. he used to promote w9inn's antennas, much to w9inn's
irritation...

bob
k5qwg

1944. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:35:19 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <X0Vve.10032$jX6.7297@newsread2.news.pas.earthlink.net>
Source record: 74210

>
> 1. That it is simply a 2:1 transformer with an isolated primary and
> secondary?
>

No. It is a pair of 1:1 transformers on a single core. I can make it work equally well by making the two transformers on separate cores. I can also make it with a pair of equal length coaxial cables. Both of these realisations defeat his claim that it is a 2:1 transformer. But at the same time, neither of them answer his claim that it is impossible to make a 4:1 current balun on a single core with a pair of 1:1 transformers.

>
> 2. That it is not a true transmission line transformer, because your
> transmission-line windings are not being fed with opposite polarities
> across the *same* end?
>

This isn't even a gray area. We're making a BALUN, in other words a transformer that has an UNbalanced port and a BALanced port, and in this case fully meeting the definition of a current balun. If we were to accept the above statement, then we would have no choice except to conclude that in no circumstances could we make a BALUN with transmission line transformers because in all cases of BALUNs one port is fed unbalanced.

Making transmission line transformers is not difficult, although Tom is making it appear as though it's some sort of great mustery. For a length of transmission line that is sufficiently short with respect to wavelength, meaning less than an eighth of a wavelength in practice, the following rules are observed:

1. The voltage across the one conductor is equal to the voltage of the other conductor, both in magnitude and in phase.

2. The current in the one conductor is equal in magnitude but oppostite in phase to the current in the other conductor.

These basic understandings of transmission line transformers are well established and understood. Gary Breed brought the concept down to the essentials in:

Breed, Gary, "Transmission Line Transformer Basics," Applied Microwave & Wireless, Vol. 10, No. 4, May 1998, p. 60.

It all comes down to a difference between what is known by way of
established theory and practice versus trying to convince people that
everything we know is wrong.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message
news:wV5GouJgO7vCFAMG@ifwtech.co.uk...
> Chris Trask wrote:
> >
> > It's not a matter of whether I disagree with him or not. It's a
matter
> >of him standing on a cybersoapbox and declaring to the world in numerous
> >ways that such a thing cannot work and that only his analysis of how it
can
> >and cannot work is valid. He can't deny that he claimed that it was
> >impossible, so now he has to prove that the solution cannot possibly work
> >the way that he knows that it cannot work. Whatever.
> >
>
> Please skip the personal rhetoric, and tell us how you respond to his
> two main technical points about your transformer:
>
> 1. That it is simply a 2:1 transformer with an isolated primary and
> secondary?
>
> 2. That it is not a true transmission line transformer, because your
> transmission-line windings are not being fed with opposite polarities
> across the *same* end?
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

1945. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 15:43:21 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119887001.728779.192810@z14g2000cwz.googlegroups.com>
Source record: 74211

>ohhhh, that guy. he used to promote w9inn's antennas, much to w9inn's
>irritation...
>
>bob
>k5qwg

Among other things yes.

1946. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 16:09:45 UTC
From: spam.for.the@buerotiger.de
Message-ID: <3iamm9Fkl5upU1@individual.net>
Source record: 74212
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

In rec.radio.amateur.dx Rick Scott <RickN7HJ@gmail.com> wrote:

> Hmm Well considering he is the former AB7SL

That explains a lot.

Peter Lemken
DF5JT
Berlin

--
Was schlechten Geschmack so berauschend macht, ist die aristokratische
Wonne der Verärgerung.

-- Charles Baudelaire

1947. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 16:24:06 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <VKVve.3$lw.195683@news.sisna.com>
Source record: 74213

Chris:

Well, I certainly can see that your claim it is two 1:1 baluns on a single core is technically accurate--the primaries are in parallel and their secondaries are in series... that seems clear enough that it cannot be argued. I can't imagine all NOT to be in agreement on this point.

However, with no electrical connection (transmission line) existing between primary/secondary, and the voltage and current only conducted between these windings by a magnetic flux--I CAN'T see how a "true" balun can be argued, clearly--as opposed to "rf transformer."

But, I am giving this thought--as I am sure are others... I never thought about the humble "balun"/"rf transformer" in some of these ways before--possibly I am not alone... either and anyway, I enjoy the thinking you have established here...

John

"Chris Trask" <christrask@earthlink.net> wrote in message news:X0Vve.10032$jX6.7297@newsread2.news.pas.earthlink.net...
> >
>> 1. That it is simply a 2:1 transformer with an isolated primary and
>> secondary?
>>
>
> No. It is a pair of 1:1 transformers on a single core. I can make
> it
> work equally well by making the two transformers on separate cores. I
> can
> also make it with a pair of equal length coaxial cables. Both of
> these
> realisations defeat his claim that it is a 2:1 transformer. But at
> the same
> time, neither of them answer his claim that it is impossible to make a
> 4:1
> current balun on a single core with a pair of 1:1 transformers.
>
>>
>> 2. That it is not a true transmission line transformer, because your
>> transmission-line windings are not being fed with opposite polarities
>> across the *same* end?
>>
>
> This isn't even a gray area. We're making a BALUN, in other words

> a
> transformer that has an UNbalanced port and a BALanced port, and in
> this
> case fully meeting the definition of a current balun. If we were to
> accept
> the above statement, then we would have no choice except to conclude
> that in
> no circumstances could we make a BALUN with transmission line
> transformers
> because in all cases of BALUNs one port is fed unbalanced.
>
> Making transmission line transformers is not difficult, although
> Tom is
> making it appear as though it's some sort of great mustery. For a
> length of
> transmission line that is sufficiently short with respect to
> wavelength,
> meaning less than an eighth of a wavelength in practice, the following
> rules
> are observed:
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> 1. The voltage across the one conductor is equal to the
> voltage of the other conductor, both in magnitude and
> in phase.
>
> 2. The current in the one conductor is equal in magnitude
> but oppostite in phase to the current in the other
> conductor.
>
> These basic understandings of transmission line transformers are well
> established and understood. Gary Breed brought the concept down to
> the
> essentials in:
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> Breed, Gary, "Transmission Line Transformer Basics," Applied
> Microwave & Wireless, Vol. 10, No. 4, May 1998, p. 60.
>
> It all comes down to a difference between what is known by way of
> established theory and practice versus trying to convince people that
> everything we know is wrong.
>
> Chris
>
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> / What's all this \ Amplifiers for RF Communications
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> \ \ .' `. Tempe, Arizona 85285-5240
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> | | | | \ '. http://www.home.earthlink.net/~christrask
> c__; c__; '-..'>.__
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> Graphics by Loek Frederiks
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>> >and cannot work is valid. He can't deny that he claimed that it was
>> >impossible, so now he has to prove that the solution cannot possibly
>> >work
>> >the way that he knows that it cannot work. Whatever.
>> >
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>> Please skip the personal rhetoric, and tell us how you respond to his
>> two main technical points about your transformer:
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>> 1. That it is simply a 2:1 transformer with an isolated primary and
>> secondary?
>>
>> 2. That it is not a true transmission line transformer, because your
>> transmission-line windings are not being fed with opposite polarities
>> across the *same* end?
>>
>>
>> --
>> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
>> http://www.ifwtech.co.uk/g3sek
>
>

1948. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 16:46:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tja0c15uhiqrjo266dseqjeoibai78pi8i@4ax.com>
Source record: 74215

On Mon, 27 Jun 2005 15:13:05 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

> Whoa, let's reign back here a bit. The test was still for a 200-ohm
>load, but it was made asymmetric (150-ohms and 50-ohms) in order to
>accomodate the 50-ohm network analyzer.

Hi Chris,

You state you have several of these units, performing back-to-back
applications would resolve what you call asymmetry.

>The 6dB loss is a result of the

Where did the 6dB come from? I didn't notice this mentioned anywhere.

Further, there is a strong 2dB/Octave frequency characteristic that is
not explained as an issue of symmetry.

>voltage at the test port being Vin/2, but the voltage at the other output
>port with the 150-ohm resistor is 3Vin/2, so there is no excessive loss
>through the balun.

I don't know where this Vin/2 comes from. What is this divisor you've
injected into the discussion? As you offer it has no obvious
correlation to frequency, it stands that that same 2dB/Octave roll-off
is part and parcel to the unit's loss.

>In actuality, there is less than 0.1dB of power loss in
>the prototype that I made.

No where in your paper do you show the method to determine this, nor
do you reveal such a figure.

> The test was made to determine if the balance
>was correct.

The word "balance" occurs only once in your paper, and that as an
unsupported declaration. I see no work nor data to offer it as a
conclusion.

73's
Richard Clark, KB7QHC

1949. test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 16:47:54 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <_4Wve.336$U61.242@newssvr11.news.prodigy.com>
Source record: 74214

I've tried to posts to the "2 greatest antennas..." and haven't seen
either??

--

73
Hank WD5JFR

1950. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 16:56:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1cb0c1lco499hf3abdemcvkudbvrqkeep0@4ax.com>
Source record: 74216

On Mon, 27 Jun 2005 15:05:18 GMT, "Chris Trask"
<christrask@earthlink.net> wrote:

>>how is it that the ferrite makes the line appear longer?
> The ferrite makes the line look longer by way of it's permeability

Hi Chris,

Conventionally, this is not an asset of BalUns. In fact, employing
permeability risks saturation, and saturation risks catastrophic
failure.

The paragraphs that followed (not quoted here) relate to the operation
of a conventional transformer.

>> Second, if this were to occur (through the design of a "transmission
>> line transformer" that was a voltage BalUn); what is the advantage of
>> longer lines?
> It's a matter of what's practical.

Practical? This does not prove an advantage, it is a non-sequitur.

> If you were to use very short lines
>along with a high permeability material such as Fair-Rite 73, you may
>encouter a region where the lines are too short to couple properly and the
>magnetic material is well above the ferroresonance frequency. And even when
>you do get into the flux-coupling mï¿½de, you still need to have sufficient
>line in order to obtain decent coupling at lower frequencies. So, you have
>to balance the two (line length and magnetic material) in order to obtain a
>wideband transformer that has consistent performance over the desired
>frequency range.

Most of this presumes a conventional transformer design. Your data
supports the results encountered from a conventional transformer
design. The risks of using a conventional transformer design are
legion. I see nothing that suggests this novel design is superior to
a Transmission Line Transformer (AKA Current BalUn).

73's
Richard Clark, KB7QHC

1951. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 17:16:00 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <KpaIX6bQRDwCFAR4@ifwtech.co.uk>
Source record: 74217

Chris Trask wrote:
>>
>> 1. That it is simply a 2:1 transformer with an isolated primary and
>> secondary?
>>
>
> No. It is a pair of 1:1 transformers on a single core. I can make it
>work equally well by making the two transformers on separate cores. I can
>also make it with a pair of equal length coaxial cables. Both of these
>realisations defeat his claim that it is a 2:1 transformer.

If it were a mains or an audio transformer with four identical windings, two primaries in parallel and two secondaries in series, most people wouldn't hesitate to call that a "2:1" (voltage ratio) transformer. You could also choose to call it "a pair of 1:1 transformers on a single core" and that would also be valid, though I don't believe that would be most people's preferred description.

The same output voltages can *also* be obtained by a different method, by appropriately wiring two completely separate 1:1 transformers, but that doesn't affect the way we should think about the transformer on a single core.

>But at the same
>time, neither of them answer his claim that it is impossible to make a 4:1
>current balun on a single core with a pair of 1:1 transformers.
>
Agreed.

>>
>> 2. That it is not a true transmission line transformer, because your
>> transmission-line windings are not being fed with opposite polarities
>> across the *same* end?
>>
>
> This isn't even a gray area. We're making a BALUN, in other words a
>transformer that has an UNbalanced port and a BALanced port, and in this
>case fully meeting the definition of a current balun. If we were to accept
>the above statement, then we would have no choice except to conclude that in
>no circumstances could we make a BALUN with transmission line transformers
>because in all cases of BALUNs one port is fed unbalanced.
>
I was talking about TLT's, not baluns. Some baluns are TLT but others are not.

> Making transmission line transformers is not difficult, although Tom is
>making it appear as though it's some sort of great mustery. For a length of
>transmission line that is sufficiently short with respect to wavelength,
>meaning less than an eighth of a wavelength in practice, the following rules
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> Breed, Gary, "Transmission Line Transformer Basics," Applied
> Microwave & Wireless, Vol. 10, No. 4, May 1998, p. 60.
>
>It all comes down to a difference between what is known by way of
>established theory and practice versus trying to convince people that
>everything we know is wrong.

Sorry, but it all seems to come down to the definitions of "current
balun" and "transmission line transformer" that one chooses to adopt.
Rather than referencing those definitions, please can you quote them
here, in full?

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1952. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 17:44:33 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <kWWve.8$xD2.292980@news.sisna.com>
Source record: 74218

Ian:

Yes, you inject a VERY GOOD point here--I realize my "definitions" are a bit blurry. And, indeed, scanning the internet suggests there are some others out there suffering the same.

What can we all agree are proper definitions to balun, "rf transformer", etc... I admit I have not ever set up a solid foundation of knowledge here--just used ideas, plans, etc which others have made available... and referred to them by the names given... this leaves me at a loss while I investigate.

John

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message news:KpaIX6bQRDwCFAR4@ifwtech.co.uk...
> Chris Trask wrote:
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> transformer. You could also choose to call it "a pair of 1:1
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>
> The same output voltages can *also* be obtained by a different method,
> by appropriately wiring two completely separate 1:1 transformers, but
> that doesn't affect the way we should think about the transformer on a
> single core.
>
>
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>>4:1
>>current balun on a single core with a pair of 1:1 transformers.
>>
> Agreed.
>
>
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> here, in full?
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>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

1953. Re: Choke baluns again

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 18:47:41 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <pQXve.11177$gr.1103@bignews1.bellsouth.net>
Source record: 74219

> >
> >Apparently it makes more difference to me than it does to you.
> >I don't want it digging into the tree branches.
>
> That's a fair point. The sag in a dipole supported only at the ends is
> very sensitive to the suspended weight in the middle. And if the end
> supports are trees, the problem can become extreme.
****
Yes, I use trees whenever possible - and install the antenna with a
bow-and-arrow
****

>
> >Nothing wrong with your view - its probably a better-informed view than
> >mine - but I'll still use balanced line and I still think baluns are too
> >heavy. I'm just hard-headed that way. :-)
> >
> If sag is a problem, don't use 300 or 450-ohm ladder line. In terms of
> weight and windage, it is a very bad solution. A much more practical
> solution is to make your own ultra-lightweight parallel line. The wire
> can be much thinner than the main antenna, and you can use a spacing of
> several inches with the absolute minimum number of ultra-lightweight
> spreaders.
****
Usually 300-ohm twin lead is light enough
****
>
>
> But more important than that, please stop calling it "balanced line".
> Somehow we have got into the habit of kidding ourselves that
> parallel-wire line is balanced line. It isn't!
****
When I use a balun to feed it - then its balanced line - and that's what I
was talking about.
But I see your point
Henceforth I dub it "twinlead"
****
>
> Parallel line does NOT automatically balance itself. It will cheerfully
> allow unequal currents on the two wires. That's the same as saying it
> will cheerfully support an unwanted common-mode current (same magnitude
> and same direction on both wires) in addition to the wanted
> equal-and-opposite currents.
>

> So parallel line will NOT be balanced line - not until you have done
> something to MAKE it balanced.
****
(Like using a BalUn ??
****
>
>
Thanks for your input

1954. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 18:49:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <oTXve.21$hM5.614449@news.sisna.com>
Source record: 74136

Ian:

Here is a rather good paper on TLT's, this should be a definition
acceptable to most...
http://www.highfrequencyelectronics.com/Archives/Feb04/HFE0204_Sevick.pdf

John

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message
news:KpaIX6bQRDwCFAR4@ifwtech.co.uk...
> Chris Trask wrote:
>>>
>>> 1. That it is simply a 2:1 transformer with an isolated primary and
>>> secondary?
>>>
>>
>> No. It is a pair of 1:1 transformers on a single core. I can
>> make it
>>work equally well by making the two transformers on separate cores. I
>>can
>>also make it with a pair of equal length coaxial cables. Both of
>>these
>>realisations defeat his claim that it is a 2:1 transformer.
>
> If it were a mains or an audio transformer with four identical
> windings, two primaries in parallel and two secondaries in series,
> most people wouldn't hesitate to call that a "2:1" (voltage ratio)
> transformer. You could also choose to call it "a pair of 1:1
> transformers on a single core" and that would also be valid, though I
> don't believe that would be most people's preferred description.
>
> The same output voltages can *also* be obtained by a different method,
> by appropriately wiring two completely separate 1:1 transformers, but
> that doesn't affect the way we should think about the transformer on a
> single core.
>
>
>>But at the same
>>time, neither of them answer his claim that it is impossible to make a
>>4:1
>>current balun on a single core with a pair of 1:1 transformers.
>>
> Agreed.
>
>

>>>
>>> 2. That it is not a true transmission line transformer, because your
>>> transmission-line windings are not being fed with opposite
>>> polarities
>>> across the *same* end?
>>>
>>
>> This isn't even a gray area. We're making a BALUN, in other words
>> a
>>transformer that has an UNbalanced port and a BALanced port, and in
>>this
>>case fully meeting the definition of a current balun. If we were to
>>accept
>>the above statement, then we would have no choice except to conclude
>>that in
>>no circumstances could we make a BALUN with transmission line
>>transformers
>>because in all cases of BALUNs one port is fed unbalanced.
>>
> I was talking about TLT's, not baluns. Some baluns are TLT but others
> are not.
>
>
>> Making transmission line transformers is not difficult, although
>> Tom is
>>making it appear as though it's some sort of great mustery. For a
>>length of
>>transmission line that is sufficiently short with respect to
>>wavelength,
>>meaning less than an eighth of a wavelength in practice, the following
>>rules
>>are observed:
>>
>> 1. The voltage across the one conductor is equal to the
>> voltage of the other conductor, both in magnitude and
>> in phase.
>>
>> 2. The current in the one conductor is equal in magnitude
>> but oppostite in phase to the current in the other
>> conductor.
>>
>>These basic understandings of transmission line transformers are well
>>established and understood. Gary Breed brought the concept down to
>>the
>>essentials in:
>>
>> Breed, Gary, "Transmission Line Transformer Basics," Applied
>> Microwave & Wireless, Vol. 10, No. 4, May 1998, p. 60.
>>
>>It all comes down to a difference between what is known by way of

>>established theory and practice versus trying to convince people that
>>everything we know is wrong.
>
>
> Sorry, but it all seems to come down to the definitions of "current
> balun" and "transmission line transformer" that one chooses to adopt.
> Rather than referencing those definitions, please can you quote them
> here, in full?
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

1955. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 18:54:31 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119898471.044048.45570@g43g2000cwa.googlegroups.com>
Source record: 74220

Unfortunately, I don't have that edition.
Is it four windings?
1---/////////---2
3---/////////---4
5---/////////---6
7---/////////---8
with (1 to 5) and (3 to 7) as the unbalanced input,
(4 to 6) tied together, and (2) and (8) as the balanced
output?

Yes, but they are not windings. They are parallel conductors in pairs.
1 and 3 form one pair. 5 and 7 the other.

You can see a schematic at:

http://www.w8ji.com/balun_single_core_41_analysis.htm

under real transmisison line balun. Sevik proposes the winding can
share a common core.

73 Tom

1956. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:07:15 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119899235.533993.80170@g44g2000cwa.googlegroups.com>
Source record: 74221

The entire difference between Chris and I is in my opinion he built what most of the world would call a transformer. There is no forced TEM mode excitation that I can see.

Sevik clearly drew a pair of transmission lines, and that was what I was discussing (and I even exempted a primary/secondary transformer.

If I take a true transmission line choke balun and remove the core, electrical line length does not change significantly. Chris in an earlier post claimed the core lengthened the electrical "line length".

Also I'm assuming he didn't use 100 ohm lines, as a TL 4:1 balun requires. He used coax, which as far as I know isn't easy to make at 100 ohms.

The limited SWR BW, the fact the core affects the electrical length of the "lines", the high loss (.1dB), the fact the lines don't need to be 100 ohm lines, the lack of differential mode excitaion of the start.....all point to operation like any other interleaved winding transformer including audio and some power transformers.

I don't think an isolation transformer is "new art", but calling it a transmission line transformer might be new! ;-)

73 Tom

1957. Re: Butternut HF9V unwanted resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:08:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1gj0c1l5erpdfcbemlv6shuuf8v61hidb5@4ax.com>
Source record: 74222

On 27 Jun 2005 00:37:35 -0700, helthansen@hotmail.com (Gorm
Helt-Hansen) wrote:

>My Butternut HF9V has an unwanted resonance on about 48 MHz with the
>result that the SWR on 50 MHz is not good.
>Does anyone have a method to remove this resonance, so the 50 MHz SWR
>can be good??

Hi Gorm,

Is this ground mounted, or mast mounted? Presuming mast mounted, did
you use the suggested radial kit or counterpoise kit? Are they
mounted at the suggested location? Adjusting the length of the 6M
band radial should do it.

73's
Richard Clark, KB7QHC

1958. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:19:14 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0kb4s0hdg1d9@news.supernews.com>
Source record: 74125
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Hi Mac,
We had certain constraints to work around such as available guy anchors vs. distance of tower from shack since it is a VHF installation I needed to be as close to the shack as possible for transmission line loss considerations even with 9914. Even though we have over 40 acres the tower needed to be close as hardline was not an option.

I am in the country here so there is little building regulation to adhere to or approvals of construction projects.

We could and still might add concreted guy anchors although they would give more interference for the mower and foot traffic in the back and front yards and that was a concern of the xyl.

The tower has a very low wind load on it with those 2 small lightweight VHF antennas. I know it is very common for hams to overload their "properly engineered and maintained " towers.

As far as mating 2 different brands of towers I was on a budget and had access to 45ft of what has been called "Sears" brand and 40 ft of 25g. We altered our design from an 85ft erection down to 75ft as a safety precaution during and after the installation. Yes trees do sway but as the photos show they don't sway where the guys are attached.

Our insurance man has added the structure to our list of covered items in our policy so evidently it was OK for coverage.
I suppose that no matter how we installed this tower and I so naively posted a photo link there are some that will berate it.

TY for your civility however..seriously it was quite refreshing.....
--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11bv2l61vm5red4@corp.supernews.com...
> Dear Charlie AD5TH:
> You have performed a great service by presenting the results of K5HGR's
> engineering and your work. Its educational value is almost beyond
> calculation.
>
> In this part of the world one would need to have a licensed

> professional
> engineer (PE) sign off on such a structure. Clearly, down your way one
> has
> freedom to innovate without concern for issues that we are required to
> consider.
>
> My goodness. I recently completed a task of a tall tower in a
> populated
> area where I had to have design work from the factory's PE, have that work
> reviewed by a local PE, get permission from the local municipality, have
> the airport sign off on the height, take soil samples so that a safe
> foundation could be designed, watch the fabrication of the foundation to
> make sure that it was done right, and on and on... Course, we do get
> serious wind up here and it just would not do to kill someone with a tower
> collapse.
>
> You sure are fortunate not to have all of the things we have to put up
> with and not even have to worry about wind. Do keep us posted. The whole
> story has yet to be revealed.
>
> 73 Mac N8TT
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
>
>

1959. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:20:09 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0kci28ipar09@news.supernews.com>
Source record: 74223
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Good point...guess I'll have enough time then for VUCC!!!

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42bff5c9$1_1@spool9-west.superfeed.net...
> Ed wrote:
>> As far as ANY tower can be blown down.... not really true for a properly
>> engineered and maintained structure.
>
> I saw on The National Geographic Channel yesterday where
> all towers left standing will be blown down when our sun
> explodes about five billion years from now. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

1960. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:20:46 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0kdrrp6b2s35@news.supernews.com>
Source record: 74224
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Thanks for your tips Rob...

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Rob" <nospam@nospam.org> wrote in message
news:BPTve.3202$mK5.183751@news20.bellglobal.com...
> Charlie,
>
> It's very obvious a lot of hard work went into that project, this makes it
> even harder to face criticism, but don't lose sight of the fact that it's
> constructive (even though it's deteriorating rapidly.) There really are
> numerous problems with your installation, and some will inevitably lead to
> catastrophic failure and potential loss of life.
>
> Be careful around that thing until you can fix it up. In the least,
> install dedicated anchor points set in a sizeable concrete base, shorten
> your top mast and get a thrust bearing up there. Put at least 1/3 of your
> rotatable mast below the bearing.
>
> This is by no means a complete list, but I think the majority of readers
> will agree it's a good place to start.
>
> Rob
>
>

1961. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:21:41 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0kfhlli89q66@news.supernews.com>
Source record: 74126
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

I moved to Mississippi dumb-ass...I knew nothing about your alleged
"lawyers". BIOYA!!!

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"R. Scott" <RickN7HJTHREAD@gmail.com> wrote in message
news:42C00F2D.1113C4DC@gmail.com...
> Well considering he is the former AB7SL it wouldnt surprise me this is
> his creation. If you do a net search on good ole charlie you will find
> lots of things. Including his imitating a couple of amateurs on the
> newsgroups to promote his spamming of the Newsgroups with the Antenna
> sales. I understand that 2 of them were really unhappy about that and
> were getting lawyers and soon after that charles disappeared from the
> net as AB7SL and now he has reappeared.
>
> Charles charles, when you going to learn.
> --
> Rick
> Everett, Washington
> Remove THREAD to reply.

1962. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:22:23 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0kgsdgqp5v93@news.supernews.com>
Source record: 74127
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Double posting Rick? I see you still are a Usenet novice but still always
good for a chuckle.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1119884567.446695.145080@g44g2000cwa.googlegroups.com...
> Hmm Well considering he is the former AB7SL it wouldnt surprise me this
> is
> his creation. If you do a net search on good ole charlie you will find
> lots of things.
>
> Keep your head down.
>

1963. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:37:13 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119901033.557839.34900@g43g2000cwa.googlegroups.com>
Source record: 74129
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Still the same charlie. And I dont think I said anything about me
getting a lawyer, Im just relaying what was said to me from a Gentleman
who's name and ham radio callsign was used on USNET to bolster your
comments. Funnything was, he didnt even use the internet. He was very
curious about where it came from and wanted to know where. I pointed
to Cable one to let them tell him.

Funny you disappeard off the internet shortly after that.

Coincidence I guess.

Good luck with that tower of yours. Im sure we will be reading much
more about it some day soon.

1964. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:38:51 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119901131.237561.56420@z14g2000cwz.googlegroups.com>
Source record: 74128
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Charlie wrote:
> Double posting Rick? I see you still are a Usenet novice but still always
> good for a chuckle.
>

Nope, canceled the 1st one, but appearently your ISP doesnt accept
cancels.

If you say Im a novice, then thats your opinion.

Say did you ever learn what headers were and what they can tell you.

1965. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:41:34 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0lksqsr75r9c@news.supernews.com>
Source record: 74130
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Yes one tends to "disappear" off Usenet when they move residences and don't get back online for a year or so. Your powers of reason and deduction leave a lot to be desired. But anyway have a great day and work on that logic processing - OK?

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1119901033.557839.34900@g43g2000cwa.googlegroups.com...
> Still the same charlie. And I dont think I said anything about me
> getting a lawyer, Im just relaying what was said to me from a Gentleman
> who's name and ham radio callsign was used on USNET to bolster your
> comments. Funnything was, he didnt even use the internet. He was very
> curious about where it came from and wanted to know where. I pointed
> to Cable one to let them tell him.
>
> Funny you disappeard off the internet shortly after that.
>
> Coincidence I guess.
>
>
> Good luck with that tower of yours. Im sure we will be reading much
> more about it some day soon.
>

1966. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 19:58:07 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0mjv6hdobe41@news.supernews.com>
Source record: 74131
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Yeah back in the early 80's.

Path:
sn-us!sn-xit-11!sn-xit-09!sn-xit-14!supernews.com!postnews.google.com!z14g2000cwz.googlegr
oups.com!not-for-mail
From: "Rick Scott" <RickN7HJ@gmail.com>
Newsgroups:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx
Subject: Re: AD5TH Tower Project Completed - Pics Online
Date: 27 Jun 2005 12:38:51 -0700
Organization: http://groups.google.com
Lines: 14
Message-ID: <1119901131.237561.56420@z14g2000cwz.googlegroups.com>
References: <11bsdqpir7o54fa@news.supernews.com>
<d9m4jr02tvu@news4.newsguy.com>
<11bu1k0evf54aff@news.supernews.com>
<6_6dncbhW4LOlCLfRVn-oA@crocker.com>
<11bu5akmpsjhe0c@news.supernews.com>
<d9nls20sbi@news1.newsguy.com>
<11busgftdv3a821@news.supernews.com>
<1119884567.446695.145080@g44g2000cwa.googlegroups.com>
<11c0kgsdgqp5v93@news.supernews.com>
NNTP-Posting-Host: 130.76.32.144
Mime-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
X-Trace: posting.google.com 1119901136 4299 127.0.0.1 (27 Jun 2005 19:38:56
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Mon, 27 Jun 2005 19:38:56 +0000 (UTC)
In-Reply-To: <11c0kgsdgqp5v93@news.supernews.com>
User-Agent: G2/0.2
Complaints-To: groups-abuse@google.com
Injection-Info: z14g2000cwz.googlegroups.com; posting-host=130.76.32.144;
posting-account=-YuqBA0AAADEWAY3wYFR3S9BTZUy0-aa
Xref: sn-us alt.ham-radio.vhf-uhf:44728 rec.radio.amateur.antenna:243736
rec.radio.amateur.dx:31830

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net

www.deepsouthnet.net

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1119901131.237561.56420@z14g2000cwz.googlegroups.com...
>
>
> Charlie wrote:
>> Double posting Rick? I see you still are a Usenet novice but still always
>> good for a chuckle.
>>
>
> Nope, canceled the 1st one, but appearently your ISP doesnt accept
> cancels.
>
> If you say Im a novice, then thats your opinion.
>
> Say did you ever learn what headers were and what they can tell you.
>

1967. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 20:10:06 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0naaqk1lc3c7@news.supernews.com>
Source record: 74133
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Rick here is a cut and paste from your QRZ page for your callsign of N7HJ
Ricky J Scott
5 77th Pl SW
Everett WA 98203
USA
RickN7HJ@gmail.com

HERE is the snippet....
--
"The only contest I enter is Sweepsteaks (Both CW and SSB) so look for me
there. "

Do you prefer New York Strip or Black Angus Rib Eye?
Besides the logic processing you also need to work on spelling too...how old
are you.. 9?
And don't say it's a TYPO cuz it AIN'T! Like I said always good for a
chuckle....

At least you can spell CW and SSB correctly....how long did those take to
learn Ricky?
--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1119901131.237561.56420@z14g2000cwz.googlegroups.com...
>
>
> Charlie wrote:
>> Double posting Rick? I see you still are a Usenet novice but still always
>> good for a chuckle.
>>
>
> Nope, canceled the 1st one, but appearently your ISP doesnt accept
> cancels.
>
> If you say Im a novice, then thats your opinion.
>
> Say did you ever learn what headers were and what they can tell you.
>

1968. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 20:10:17 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119903017.175218.115100@g44g2000cwa.googlegroups.com>
Source record: 74132
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Charlie wrote:
> Yeah back in the early 80's.
> ----------
> Path:

Oh Really, So you called me a liar that you knew nothing about headers.
So, now your saying that you were lying about that whole affair. Let
me refresh you memory. So you say your an early 80s Internet user ...
But in 2002 you claim to not know what the INTERNET was. And using an
At the IRS.GOV addy wasnt too bright either. Some from the 80s
Internet would know that. SO what gov or non profit system were you
using back in the "80s"

From: "CJ" <w...@irs.gov>
Newsgroups:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.equipment
Subject: Re: W9INN Antennas Page now ONLINE!
Date: Wed, 8 May 2002 09:56:11 -0700
Organization: Posted via Supernews, http://www.supernews.com
Message-ID: <udim5eqm8f7431@corp.supernews.com>
References: <41749911.0205060920.26543c8e@posting.google.com>
<3CD7D5FD.79BF0A46@umich.edu>
<b03b87e2.0205071009.45283610@posting.google.com>
<3CD8245D.93330A9C@netscape.net>
<41749911.0205071337.3ca96b4c@posting.google.com>
<3CD93818.1DC213B3@yahoo.com>
X-Priority: 3
X-MSMail-Priority: Normal
X-Newsreader: Microsoft Outlook Express 6.00.2600.0000
X-Mimeole: Produced By Microsoft MimeOLE V6.00.2600.0000
X-Complaints-To: newsabuse@supernews.com
Lines: 22

Hello Rick,
I have no idea what in the world you are talking about...what are
"headers" anyway?
Lord bless you and your family.....hope to catch you on the air one of
these days.
Here is the link you asked about Rick....

Cushcraft R7 / R7000 "black box" photo w/component values, schematic,
trap illustration, high SWR fix tips,
and R7 / R7000 assembly -and- installation manuals all downloadable at
this link.....

http://www.ab7sl.com/index.html?row1col2=r7.html
---

73 / DX de Charles
AB7SL - Ham Radio Pages
www.ab7sl.com

1969. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 20:21:53 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1119903713.469380.321450@g49g2000cwa.googlegroups.com>
Source record: 74134
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Charlie wrote:
> Rick here is a cut and paste from your QRZ page for your callsign of N7HJ
> Ricky J Scott
> 5 77th Pl SW
> Everett WA 98203
> USA
> RickN7HJ@gmail.com
>
> HERE is the snippet....
> --
> "The only contest I enter is Sweepsteaks (Both CW and SSB) so look for me
> there. "
> ---
> Do you prefer New York Strip or Black Angus Rib Eye?
> Besides the logic processing you also need to work on spelling too...how old
> are you.. 9?
> And don't say it's a TYPO cuz it AIN'T! Like I said always good for a
> chuckle....
>
>
> At least you can spell CW and SSB correctly....how long did those take to
> learn Ricky?
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net

Ahhh Standard comeback there Charlie. Dive right to a Typo anywhere
you can find it and try to deflect from the truth.

Nice try.

Dont worry, I wont bother you again, as your still they same ole
charlie.

Just dont start promoting your Affiliate programs again and dont forge
headers again and you will not ever hear from me.

Good luck with your tower, but as a matter of principle, you might want
to save up a bit of rainy day cash for when the Insurance issue pops
up.

Let us know how the Power Company likes your Modification to thier Power Pole. Ours issue tickets for Nails in them. Wonder how a tower harness will go over.

1970. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 20:22:27 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <7eZve.10295$hK3.9725@newsread3.news.pas.earthlink.net>
Source record: 74135

>
> However, with no electrical connection (transmission line) existing
> between primary/secondary, and the voltage and current only conducted
> between these windings by a magnetic flux--I CAN'T see how a "true"
> balun can be argued, clearly--as opposed to "rf transformer."
>

I left out the word "current". My balun is a proper current balun as it meets the formal definition, which is that it maintains currents at the output terminals that are equal in magnitude and opposite in phase regardless of potentials at the output terminals with respect to the ground connection on the unbalanced side. You can find this definition in less strict form in the ARRL handbook, such as 1991 pages 16.8-16.9.

The single core Guanella 4:1 current balun meets this definition but only for floating loads. Anything other than that and the two transformers need to be on separate cores.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"John Smith" <assemblywizard@gmail.com> wrote in message
news:VKVve.3$lw.195683@news.sisna.com...
> Chris:
>
> Well, I certainly can see that your claim it is two 1:1 baluns on a
> single core is technically accurate--the primaries are in parallel and
> their secondaries are in series... that seems clear enough that it
> cannot be argued. I can't imagine all NOT to be in agreement on this
> point.

>
> However, with no electrical connection (transmission line) existing
> between primary/secondary, and the voltage and current only conducted
> between these windings by a magnetic flux--I CAN'T see how a "true"
> balun can be argued, clearly--as opposed to "rf transformer."
>
> But, I am giving this thought--as I am sure are others... I never
> thought about the humble "balun"/"rf transformer" in some of these ways
> before--possibly I am not alone... either and anyway, I enjoy the
> thinking you have established here...
>
> John
>
> "Chris Trask" <christrask@earthlink.net> wrote in message
> news:X0Vve.10032$jX6.7297@newsread2.news.pas.earthlink.net...
> > >
> >> 1. That it is simply a 2:1 transformer with an isolated primary and
> >> secondary?
> >>
> > >
> > > No. It is a pair of 1:1 transformers on a single core. I can make
> > > it
> > > work equally well by making the two transformers on separate cores. I
> > > can
> > > also make it with a pair of equal length coaxial cables. Both of
> > > these
> > > realisations defeat his claim that it is a 2:1 transformer. But at
> > > the same
> > > time, neither of them answer his claim that it is impossible to make a
> > > 4:1
> > > current balun on a single core with a pair of 1:1 transformers.
> > >
> >>
> >> 2. That it is not a true transmission line transformer, because your
> >> transmission-line windings are not being fed with opposite polarities
> >> across the *same* end?
> >>
> > >
> > > This isn't even a gray area. We're making a BALUN, in other words
> > > a
> > > transformer that has an UNbalanced port and a BALanced port, and in
> > > this
> > > case fully meeting the definition of a current balun. If we were to
> > > accept
> > > the above statement, then we would have no choice except to conclude
> > > that in
> > > no circumstances could we make a BALUN with transmission line
> > > transformers
> > > because in all cases of BALUNs one port is fed unbalanced.
> > >

> > Making transmission line transformers is not difficult, although
> > Tom is
> > making it appear as though it's some sort of great mustery. For a
> > length of
> > transmission line that is sufficiently short with respect to
> > wavelength,
> > meaning less than an eighth of a wavelength in practice, the following
> > rules
> > are observed:
> >
> > 1. The voltage across the one conductor is equal to the
> > voltage of the other conductor, both in magnitude and
> > in phase.
> >
> > 2. The current in the one conductor is equal in magnitude
> > but oppostite in phase to the current in the other
> > conductor.
> >
> > These basic understandings of transmission line transformers are well
> > established and understood. Gary Breed brought the concept down to
> > the
> > essentials in:
> >
> > Breed, Gary, "Transmission Line Transformer Basics," Applied
> > Microwave & Wireless, Vol. 10, No. 4, May 1998, p. 60.
> >
> > It all comes down to a difference between what is known by way of
> > established theory and practice versus trying to convince people that
> > everything we know is wrong.
> >
> > Chris
> >
> > ,----------------------. High Performance Mixers and
> > / What's all this \ Amplifiers for RF Communications
> > / extinct stuff, anyhow? /
> > \ _______,--------------' Chris Trask / N7ZWY
> > _ |/ Principal Engineer
> > oo\ Sonoran Radio Research
> > (__)\ _ P.O. Box 25240
> > \ \ .' `. Tempe, Arizona 85285-5240
> > \ \ / \
> > \ '" \ IEEE Senior Member #40274515
> > . ( ) \
> > '-|)__| :. \ Email: christrask@earthlink.net
> > | | | | \ '. http://www.home.earthlink.net/~christrask
> > c__; c__; '-..'>.__
> >
> > Graphics by Loek Frederiks
> >
> > "Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message

> > news:wV5GouJgO7vCFAMG@ifwtech.co.uk...
> >> Chris Trask wrote:
> >> >
> >> > It's not a matter of whether I disagree with him or not. It's a
> > matter
> >> >of him standing on a cybersoapbox and declaring to the world in
> >> >numerous
> >> >ways that such a thing cannot work and that only his analysis of how
> >> >it
> > can
> >> >and cannot work is valid. He can't deny that he claimed that it was
> >> >impossible, so now he has to prove that the solution cannot possibly
> >> >work
> >> >the way that he knows that it cannot work. Whatever.
> >> >
> >>
> >> Please skip the personal rhetoric, and tell us how you respond to his
> >> two main technical points about your transformer:
> >>
> >> 1. That it is simply a 2:1 transformer with an isolated primary and
> >> secondary?
> >>
> >> 2. That it is not a true transmission line transformer, because your
> >> transmission-line windings are not being fed with opposite polarities
> >> across the *same* end?
> >>
> >>
> >> --
> >> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> >> http://www.ifwtech.co.uk/g3sek
> >
> >
>

1971. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 20:34:03 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119904443.080383.210220@o13g2000cwo.googlegroups.com>
Source record: 74137

I left out the word "current". My balun is a proper current balun as
it
meets the formal definition, which is that it maintains currents at the

output terminals that are equal in magnitude and opposite in phase
regardless of potentials at the output terminals with respect to the
ground
connection on the unbalanced side. You can find this definition in
less
strict form in the ARRL handbook, such as 1991 pages 16.8-16.9. >>

I agree.It just isn't a transmission line balun, nor an optimum design
for most applications.

The single core Guanella 4:1 current balun meets this definition
but
only for floating loads. Anything other than that and the two
transformers
need to be on separate cores.>>

I agree again. That's what I've been saying all along.

There we have it. Problem solved except for calling transmission lines
transformers, and transformers transmission lines.

73 Tom

1972. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 21:04:43 UTC
From: Mark
Message-ID: <0op0c1d8g1l9d4nku27v1nt8oroal2i1u1@4ax.com>
Source record: 74138

On Sat, 25 Jun 2005 17:40:50 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>This may well be an application for a passive repeater.
>2 yagis back to back
>one aimed at the nearest tower
>the other aimed at your house.
>mount it high

That sounds like a good idea, should I mount the antenna's at a 90o
angle relative to each other, with the receiving antenna mounted to
look in the vertical plane (I know where the base station is). And the
transmitting antenna to give as much horizontal plane coverage as
possible, angled down to the areas I wish to receive telephone
coverage? Can I expect good results?

1973. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 21:07:24 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0qlublp5rre3@news.supernews.com>
Source record: 74140
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

You make no sense...
Who pissed in your Cheerios this morning anyway Ricky?

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1119903017.175218.115100@g44g2000cwa.googlegroups.com...
>
>
> Charlie wrote:
>> Yeah back in the early 80's.
>> ----------------------------
>> Path:
>
>
> Oh Really, So you called me a liar that you knew nothing about headers.
> So, now your saying that you were lying about that whole affair. Let
> me refresh you memory. So you say your an early 80s Internet user ...
> But in 2002 you claim to not know what the INTERNET was. And using an
> At the IRS.GOV addy wasnt too bright either. Some from the 80s
> Internet would know that. SO what gov or non profit system were you
> using back in the "80s"
>
>
> From: "CJ" <w...@irs.gov>
> Newsgroups:
> rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.equipment
> Subject: Re: W9INN Antennas Page now ONLINE!
> Date: Wed, 8 May 2002 09:56:11 -0700
> Organization: Posted via Supernews, http://www.supernews.com
> Message-ID: <udim5eqm8f7431@corp.supernews.com>
> References: <41749911.0205060920.26543c8e@posting.google.com>
> <3CD7D5FD.79BF0A46@umich.edu>
> <b03b87e2.0205071009.45283610@posting.google.com>
> <3CD8245D.93330A9C@netscape.net>
> <41749911.0205071337.3ca96b4c@posting.google.com>
> <3CD93818.1DC213B3@yahoo.com>
> X-Priority: 3

> X-MSMail-Priority: Normal
> X-Newsreader: Microsoft Outlook Express 6.00.2600.0000
> X-Mimeole: Produced By Microsoft MimeOLE V6.00.2600.0000
> X-Complaints-To: newsabuse@supernews.com
> Lines: 22
>
> Hello Rick,
> I have no idea what in the world you are talking about...what are
> "headers" anyway?
> Lord bless you and your family.....hope to catch you on the air one of
> these days.
> Here is the link you asked about Rick....
> ---------------
> Cushcraft R7 / R7000 "black box" photo w/component values, schematic,
> trap illustration, high SWR fix tips,
> and R7 / R7000 assembly -and- installation manuals all downloadable at
> this link.....
>
> http://www.ab7sl.com/index.html?row1col2=r7.html
> ----------------
>
> 73 / DX de Charles
> AB7SL - Ham Radio Pages
> www.ab7sl.com
>

1974. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 21:08:41 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <11c0qob8m7bj13c@news.supernews.com>
Source record: 74139
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Hahahahaha!

OH YEAH

sweepstakes
- and -
sweepsteaks

Are just simple typos......give it a f__king rest moron...

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1119903713.469380.321450@g49g2000cwa.googlegroups.com...
>
>
> Charlie wrote:
>> Rick here is a cut and paste from your QRZ page for your callsign of N7HJ
>> Ricky J Scott
>> 5 77th Pl SW
>> Everett WA 98203
>> USA
>> RickN7HJ@gmail.com
>>
>> HERE is the snippet....
>> --
>> "The only contest I enter is Sweepsteaks (Both CW and SSB) so look for me
>> there. "
>> ---
>> Do you prefer New York Strip or Black Angus Rib Eye?
>> Besides the logic processing you also need to work on spelling too...how
>> old
>> are you.. 9?
>> And don't say it's a TYPO cuz it AIN'T! Like I said always good for a
>> chuckle....
>>
>>
>> At least you can spell CW and SSB correctly....how long did those take to
>> learn Ricky?

>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>
>
> Ahhh Standard comeback there Charlie. Dive right to a Typo anywhere
> you can find it and try to deflect from the truth.
>
> Nice try.
>
> Dont worry, I wont bother you again, as your still they same ole
> charlie.
>
> Just dont start promoting your Affiliate programs again and dont forge
> headers again and you will not ever hear from me.
>
> Good luck with your tower, but as a matter of principle, you might want
> to save up a bit of rainy day cash for when the Insurance issue pops
> up.
>
> Let us know how the Power Company likes your Modification to thier
> Power Pole. Ours issue tickets for Nails in them. Wonder how a tower
> harness will go over.
>

1975. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 23:35:07 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <6IydnW4_Cf-BEF3fRVn-tQ@comcast.com>
Source record: 74141

"Mark" <Mark@> wrote in message
news:et7qb1la2lr29hpnu0741kv79ii9ecj2c8@4ax.com...
> Please could somebody tell me the best cable (compromise between cost
> and loss) for use with an external Yagi antenna connected to a mobile
> phone. I live in a Very poor reception area, and I need to fit an
> external antenna. I have found somewhere that sells 10 element Yagi's,
> and I can mount the thing as high as need be, but I read somewhere
> that the longer the connecting cable, can negate the benefits of long
> mounting poles. I have freinds in the surrounding area that have the
> same problem, so I could do with a "rule of thumb" that I can use for
> fitting these things. The shop where I got the antenna from is
> offering me RG58 cable for this purpose, which is cheap enough, but is
> it the best compromise for what I am trying to achieve? Your
> assistance would be most welcome.
> Mark

If you need to stay cheap, use good quality RG 6. We used this stuff at 2000 MHz. You can go to the Belden or Times Microwave web site, and find tables that list the loss of various types of coax at common frequencies. BTW, at 900 MHz, RG6 will have less loss than the fat RG8. If you want GOOD stuff, get LMR400, or 9913. DO NOT get RG58/59/8/8X/8FOAM/213/214.

Tam/WB2TT

1976. Re: 2 greatest Antennas I have ever had

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-27 23:40:03 UTC
From: Yodar <JStrain4@cfl.rr.com>
Message-ID: <n70we.127878$VH2.79920@tornado.tampabay.rr.com>
Source record: 74142

WHO ! where ?

==========
RoyaltyFreePhotoMart@gmail.com wrote:

OK, the SECOND GREAT ANTENNA that I have is a Windom. Now, don't
laugh, but this is the 10 thru 40 meter Windom THAT A GUY ON EBAY SELLS
FOR $20.
That Windom is the best $20 investment I ever made.
>
> Bill Hansen
>

1977. 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 01:45:20 UTC
From: "James F. Mayer" <jfma@ix.netcom.com>
Message-ID: <QY1we.83$aY6.18@newsread1.news.atl.earthlink.net>
Source record: 74143

What is a good commercially available antenna for 6 meters. I have an RT-70A/GRC that I'm getting ready to power up in a couple of weeks. Would my discone suffice?

1978. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 02:15:39 UTC
From: "Dave \"Doc\" Corio" <dcorio@adelphia.net>
Message-ID: <zKOdnZGzD71RL13fRVn-rQ@adelphia.com>
Source record: 74144

James F. Mayer wrote:
> What is a good commercially available antenna for 6 meters. I have an
> RT-70A/GRC that I'm getting ready to power up in a couple of weeks. Would
> my discone suffice?
>
>
That might depend on what you want to do on 6. Local repeaters? Meteor
Scatter? SSB DX? I use a Cushcraft vertical (R6??), but I don't operate
a whole lot on 6. I have done some Meteor Scatter with it, some SSB, and
some local repeaters. Post what your goals are for 6, and no doubt
you'll get a big response!!

73
Dave
N0HNJ

1979. Re: test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 04:41:15 UTC
From: WdntULik2no <someone@someisp.org>
Message-ID: <8p3qnpo7oeno7ks.270620052141@kirk>
Source record: 74145

```
NOW THIS IS A REAL
TEST!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
MUHAHAHAHAHAHAHAHAHAAAAAAAAA!

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:_4Wve.336$U61.242@newssvr11.news.prodigy.com...
> I've tried to posts to the "2 greatest antennas..." and haven't seen
> either??
>
> --
>
> 73
> Hank WD5JFR
>
>
```

1980. Re: Butternut HF9V unwanted resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 06:55:20 UTC
From: helthansen@hotmail.com
Message-ID: <5a51d703.0506272255.3cd51b6e@posting.google.com>
Source record: 74146

It is ground mounted with 24 buried radials. I have tried with extra
radials cut for 50 MHz. If I make a short over the 18 MHz coil the 48
MHz resonance disappears and the SWR on 50 MHz is perfect. But it
don't work if I detune the coil, short some of the turns or remove the
capacity hat.
I have read on some newsgroups that other have had the same problem,
but I have never seen if they have solved it.

Gorm.

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<1gj0c1l5erpdfcbemlv6shuuf8v61hidb5@4ax.com>...
> On 27 Jun 2005 00:37:35 -0700, helthansen@hotmail.com (Gorm
> Helt-Hansen) wrote:
>
> >My Butternut HF9V has an unwanted resonance on about 48 MHz with the
> >result that the SWR on 50 MHz is not good.
> >Does anyone have a method to remove this resonance, so the 50 MHz SWR
> >can be good??
>
> Hi Gorm,
>
> Is this ground mounted, or mast mounted? Presuming mast mounted, did
> you use the suggested radial kit or counterpoise kit? Are they
> mounted at the suggested location? Adjusting the length of the 6M
> band radial should do it.
>
> 73's
> Richard Clark, KB7QHC

1981. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 11:22:28 UTC
From: "James F. Mayer" <jfma@ix.netcom.com>
Message-ID: <Upawe.319$aY6.31@newsread1.news.atl.earthlink.net>
Source record: 74147

"Dave "Doc" Corio" <dcorio@adelphia.net> wrote in message
news:zKOdnZGzD71RL13fRVn-rQ@adelphia.com...
> James F. Mayer wrote:
>> What is a good commercially available antenna for 6 meters. I have
>> an RT-70A/GRC that I'm getting ready to power up in a couple of weeks.
>> Would my discone suffice?
> That might depend on what you want to do on 6. Local repeaters? Meteor
> Scatter? SSB DX? I use a Cushcraft vertical (R6??), but I don't operate a
> whole lot on 6. I have done some Meteor Scatter with it, some SSB, and
> some local repeaters. Post what your goals are for 6, and no doubt you'll
> get a big response!!
>
> 73
> Dave
> N0HNJ

I'm limited to FM simplex since the RT70 only outputs FM and has no
offset that I'm aware of.

1982. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 11:56:29 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1119959789.301532.229560@z14g2000cwz.googlegroups.com>
Source record: 74148

However, with no electrical connection (transmission line) existing between primary/secondary, and the voltage and current only conducted between these windings by a magnetic flux--I CAN'T see how a "true" balun can be argued, clearly--as opposed to "rf transformer."

But, I am giving this thought--as I am sure are others... I never thought about the humble "balun"/"rf transformer" in some of these ways

before--possibly I am not alone... either and anyway, I enjoy the thinking you have established here... >>>

Aw comen on now John. Every single link coupled transformer from the 1900's to today works on the principle, as do link coupled tuners or matching systems.

Many solid state amplifiers, as amatter of fact MOST HF solid state amps use a primary/secondary transformer to couple unbalanced loads to the PA transistors balanced source.

As a matter of fact many use a similar circuit as this "novel invention". The ALM-500 for example used series secondarys for a period of time, as did Henry amps.

I had a push-pull 810 amplifier that used the same system to drive the grids of the triodes in 1964 or 65.

Using a transformer with interleaved or coaxial windings is about as new as the first power transmission with AC power.

The only thing new or novel about Chris' "invention" is he has redefined transmission line to include flux-coupled windings that do not convey energy via TEM (transverse electiomagnetic) waves like the normal transmission line we use.

Making up a new definition is not the same as producing a new or novel invention. This is almost like the new invention call Fractal antennas or E-H antennas that don't use "old" technology!

73 Tom

1983. Re: 2 greatest Antennas I have ever had

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 13:10:20 UTC
From: nm5k@wt.net
Message-ID: <1119964220.110194.134790@z14g2000cwz.googlegroups.com>
Source record: 74149

Now, this is the IMPORTANT PART and the secret of it's success. YOU MOUNT THE LOWER HORIZONTAL SECTION OF THE LETTER "C" SO THAT IT IS 24 INCHES OFF THE GROUND. This is extremely important because it give is a very low angle or radiation.

I hope you don't believe this.... The *vertical* section provides the low angle of radiation...All you are doing is running a perverted center fed1/2 vertical...

ALSO IMPORTANT. Construct this antenna with the largest gauge of stranded wire you can find. Go to the local hardware store and buy the thickest stranded wire you can get. Or, you can also use 1/8 or 3/8 copper tubing. You want to have as much surface area as possible

I hope you don't believe this either....You could make that out of 18 gauge wire, and likely see little or no difference from copper tube..

I won't comment much on the last two "great" antennas..... Seems to rile people up, when I provide negative feedback on their weapons of choice...
MK

1984. Re: Different style resonant antenna - 3:1 bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 13:47:17 UTC
From: nm5k@wt.net
Message-ID: <1119966437.448760.123150@f14g2000cwb.googlegroups.com>
Source record: 74150

Years ago someone invented something to place on the tops of antennas
that improved their signals considerably. The military allegedly
purchased many of these. They looked like a ball with a tear-drop
shape where the small pointed end fit over the end of the antenna.

Is this that same device or something along it's principal?

Same thing basically...But it ain't gonna improve the signal. At all...
It's not large enough to act as much of a capacity hat.... :(
Might lower received static noise though, compared to a
sharp tip...That would vary also, to the climate, humidity, etc...
Most of my "stinger" whips start out with a small ball...But after
a week, I've usually whacked it off, hitting trees...I don't bother
to replace...
MK

1985. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 14:38:37 UTC
From: Todd N9OGL <N9OGL@nospam.com>
Message-ID: <1119969561.a72b90bfc90c3e6e374884ca5f5dcd3b@teranews>
Source record: 74151
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

You're putting me in another bad mood.
>
"John Smith" <assemblywizard@gmail.com> wrote in message
news:aNmve.46$Rj1.11104383@news.sisna.com...
>I am sure that everyone here has noticed there is much too much attention
>paid to where posts originate from. And, there are childish personalities
>which look up where you are posting from--some with malicious intent...
>
> This URL will provide you with a means to be anonymous:
> http://www.antifirewall.com/news.htm
>
> This should allow everyone to put a stop to this bad behavior.
>
> John
>

1986. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 15:33:42 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6f0f4$42c16df2$97d55b49$8415@ALLTEL.NET>
Source record: 74152

John's big thing in life is to do an internet search on any current subject,
he then regurgitates it so he can appear to have something to add to the
discussion.

"W8JI" <w8ji@contesting.com> wrote in message
news:1119959789.301532.229560@z14g2000cwz.googlegroups.com...
> Aw comen on now John. Every single link coupled transformer from the
> 1900's to today works on the principle, as do link coupled tuners or
> matching systems.

1987. Re: Butternut HF9V unwanted resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 15:57:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1cs2c1he4gob56tr3ipd67fgefivgdlsbn@4ax.com>
Source record: 74153

On 27 Jun 2005 23:55:20 -0700, helthansen@hotmail.com (Gorm
Helt-Hansen) wrote:

>It is ground mounted with 24 buried radials. I have tried with extra
>radials cut for 50 MHz. If I make a short over the 18 MHz coil the 48
>MHz resonance disappears and the SWR on 50 MHz is perfect. But it
>don't work if I detune the coil, short some of the turns or remove the
>capacity hat.
>I have read on some newsgroups that other have had the same problem,
>but I have never seen if they have solved it.

Hi Gorm,

You might try a couple of radials that are above ground level by 20cM
or so and tune them. Your antenna is really designed to be mast
mounted, and it would be better for 6M operation. The reason for this
is that at ground level, 6M is seeing far more clutter from your
house, garage and neighborhood, in its propagation characteristics.

Propagation has nothing to do with the matching problem, but it is a
matter of practical application. With a higher antenna, you can
control the resonances of each band with tuned radials (which are not
tuned so close to, or in ground). With a higher antenna, shorter
wavelengths are impeded less by obstructions.

73's
Richard Clark, KB7QHC

1988. test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 16:35:27 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <j%ewe.1434$cb6.525@newssvr30.news.prodigy.com>
Source record: 74154

[No readable article body recovered]

1989. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 17:35:03 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <xpadnQj6TpyqF1zfRVn-qQ@comcast.com>
Source record: 74155

"James F. Mayer" <jfma@ix.netcom.com> wrote in message
news:Upawe.319$aY6.31@newsread1.news.atl.earthlink.net...
>
> "Dave "Doc" Corio" <dcorio@adelphia.net> wrote in message
> news:zKOdnZGzD71RL13fRVn-rQ@adelphia.com...
>> James F. Mayer wrote:
>>> What is a good commercially available antenna for 6 meters. I
>>> have an RT-70A/GRC that I'm getting ready to power up in a couple of
>>> weeks. Would my discone suffice?
>> That might depend on what you want to do on 6. Local repeaters? Meteor
>> Scatter? SSB DX? I use a Cushcraft vertical (R6??), but I don't operate a
>> whole lot on 6. I have done some Meteor Scatter with it, some SSB, and
>> some local repeaters. Post what your goals are for 6, and no doubt you'll
>> get a big response!!
>>
>> 73
>> Dave
>> N0HNJ
>
> I'm limited to FM simplex since the RT70 only outputs FM and has no
> offset that I'm aware of.
>
>
>
Dave,

If the discone is rated for 6 meters, go for it. I have talked to people on 6 who were using discones, even though I am horizontally polarized. I would not spend any money on a 6m FM simplex radio.

Tam/WB2TT

1990. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 17:41:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c18cd5$1_2@spool9-west.superfeed.net>
Source record: 74156

Tam/WB2TT wrote:
> ... even though I am horizontally polarized.

Couch potato? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1991. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 17:41:49 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1119980509.337917.134070@z14g2000cwz.googlegroups.com>
Source record: 74157

Ian White wrote,

"Sorry, but it all seems to come down to the definitions of "current balun" and "transmission line transformer" that one chooses to adopt. Rather than referencing those definitions, please can you quote them here, in full?"

I agree. In fact, in thinking about it, I realized that I'm more likely to use the terms "choke balun" and "transformer balun" than current and voltage balun.

Roy's analysis of (1:1 current/choke) baluns, available at http://eznec.com/misc/ibalun.txt, may be interesting reading for lurkers here who may be confused by this thread.

Cheers,
Tom

1992. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 17:46:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c18df2$1_1@spool9-west.superfeed.net>
Source record: 74158

W8JI wrote:
> Making up a new definition is not the same as producing a new or novel
> invention. This is almost like the new invention call Fractal antennas
> or E-H antennas that don't use "old" technology!

This thread has got me wondering if "Ruthroff" balun is the
same as "voltage" balun and if "Guanella" balun is the same as
"current" balun, as was explained to me once by a balun guru.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

1993. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 19:06:18 UTC
From: "Stagger Lee, Childraper" <stagger_lee_childraper@yahoo.com>
Message-ID: <1119985578.753032.81860@g14g2000cwa.googlegroups.com>
Source record: 74159
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

Todd N9OGL wrote:
> You're putting me in another bad mood.

Awww.... is four-eyed Toadie having one of his "fag fits?"

> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:aNmve.46$Rj1.11104383@news.sisna.com...
> >I am sure that everyone here has noticed there is much too much attention
> >paid to where posts originate from. And, there are childish personalities
> >which look up where you are posting from--some with malicious intent...
> >
> > This URL will provide you with a means to be anonymous:
> > http://www.antifirewall.com/news.htm
> >
> > This should allow everyone to put a stop to this bad behavior.
> >
> > John
> >

1994. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 19:28:48 UTC
From: Stagger Lee <SLee@houston-hunks.com>
Message-ID: <crosseyed.wiseman@houston-hunks.com>
Source record: 74160
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

On 28 Jun 2005 12:06:18 -0700, Secwet Woger, Numbskull:
:
:
: Todd N9OGL wrote:
: > You're putting me in another bad mood.
:
: Awww.... is four-eyed Toadie having one of his "fag fits?"
:

Woger's eyes must be crossed again. Anyone who can read headers
knows that the N9OGL post is a forgery.

==========
"Just because YOU don't know how anonymous remailers work, doesn't
mean everybody else does, imbecile." -- Secwet Woger in message-id
<5a35ee4960f14f45c1d016124d00573c@mail.futureworlds.it>

1995. test, i haven't see my previous test posts?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 19:31:54 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <KAhwe.1457$cb6.1185@newssvr30.news.prodigy.com>
Source record: 74161

If you see this, please let me know..
I wonder what I have done?

tnx
Hank

1996. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 19:54:20 UTC
From: Todd N9OGL <N9OGL@nospam.com>
Message-ID: <1119988513.2bb85110b05c9f75af8c8bfa47ed61f8@teranews>
Source record: 74163
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

"Stagger Lee, Childraper" <stagger_lee_childraper@yahoo.com> wrote in
message news:1119985578.753032.81860@g14g2000cwa.googlegroups.com...
>
>
> Todd N9OGL wrote:
>> You're putting me in another bad mood.
>
> Awww.... is four-eyed Toadie having one of his "fag fits?"
>
>
Wogie Wiseman introduced me to the lifestlyle thanks wogie.
>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:aNmve.46$Rj1.11104383@news.sisna.com...
>> >I am sure that everyone here has noticed there is much too much
>> >attention
>> >paid to where posts originate from. And, there are childish
>> >personalities
>> >which look up where you are posting from--some with malicious intent...
>> >
>> > This URL will provide you with a means to be anonymous:
>> > http://www.antifirewall.com/news.htm
>> >
>> > This should allow everyone to put a stop to this bad behavior.
>> >
>> > John
>> >
>

1997. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 19:56:15 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <zXhwe.1038$HV1.545@fed1read07>
Source record: 74162

Might try giving us operating parameters.

Are u going to operate repeaters only or skip or both?
For repeaters and mobiles, you'll want vertical polarization. (Cross polarization can be 12dB or more)
For skip, either vertical or horizontal will do.

Can u operate SSB as well as FM - not familiar with the RT-70A ?

A discone has been described as a dummy load in the sky, wide band but no gain.
A vertical 1/4 wave, 1/2 wave, or 5/8 wave will do better. Yagi better still.

Can you get a yagi up 20+ feet with a rotor?

I can't put up a Yagi, so I use a Cushcraft AR-6 Ringo, 1/2 wave vertical
Your results may vary.

Have worked 48 states and 6 DX stations with it using 100 Watts. Brag brag

--
CL -- I doubt, therefore I might be !

"James F. Mayer" <jfma@ix.netcom.com> wrote in message news:QY1we.83$aY6.18@newsread1.news.atl.earthlink.net...
> What is a good commercially available antenna for 6 meters. I have
> an RT-70A/GRC that I'm getting ready to power up in a couple of weeks.
> Would my discone suffice?
>

1998. Re: test, i haven't see my previous test posts?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 20:03:49 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <F2iwe.1464$cb6.180@newssvr30.news.prodigy.com>
Source record: 74164

I rebooted both my dsl modem and pc and now it works..
tnx
HaNK

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:KAhwe.1457$cb6.1185@newssvr30.news.prodigy.com...
> If you see this, please let me know..
> I wonder what I have done?
>
> tnx
> Hank
>

1999. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 20:27:52 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1119990472.488111.229510@g49g2000cwa.googlegroups.com>
Source record: 74165
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

my word the forheries it seems

Todd N9OGL wrote:
> "Stagger Lee, Childraper" <stagger_lee_childraper@yahoo.com> wrote in
> message news:1119985578.753032.81860@g14g2000cwa.googlegroups.com...
> >
> >
> > Todd N9OGL wrote:
> >> You're putting me in another bad mood.
> >
> > Awww.... is four-eyed Toadie having one of his "fag fits?"
> >
> >
> Wogie Wiseman introduced me to the lifestlyle thanks wogie.
> >
> >> "John Smith" <assemblywizard@gmail.com> wrote in message
> >> news:aNmve.46$Rj1.11104383@news.sisna.com...
> >> >I am sure that everyone here has noticed there is much too much
> >> >attention
> >> >paid to where posts originate from. And, there are childish
> >> >personalities
> >> >which look up where you are posting from--some with malicious intent...
> >> >
> >> > This URL will provide you with a means to be anonymous:
> >> > http://www.antifirewall.com/news.htm
> >> >
> >> > This should allow everyone to put a stop to this bad behavior.
> >> >
> >> > John
> >> >
> >

2000. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 20:57:21 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <RQiwe.676$j04.160@newssvr21.news.prodigy.com>
Source record: 74166

Have to agree with TAM- but dont expect too much- as a Discone antenna
is a no - gain, ultra wide bandwidth antenna (great for a scanner,
listening to several bands at once, but for signal strength- forget it)!

When six is open, however, all bets are off! Remember many in the '60's
running Heathkit "Sixers" working dx (1/2-1 watt output, and super-regen
reciever)! Tho, would be more effecient with a good yagi, and S.S.B.,
you might be suprised with the results. and remember: 6 meters also
tends to open during the winter solstus , as well as in the
spring/summer times! Good Luck- Jim NN7K

Tam/WB2TT wrote:

>>>N0HNJ
>>
>> I'm limited to FM simplex since the RT70 only outputs FM and has no
>>offset that I'm aware of.
>>
>>
>>
>
> Dave,
>
> If the discone is rated for 6 meters, go for it. I have talked to people on
> 6 who were using discones, even though I am horizontally polarized. I would
> not spend any money on a 6m FM simplex radio.
>
> Tam/WB2TT
>
>

2001. Re: test, i haven't see my previous test posts?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 21:01:55 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <7Viwe.679$j04.321@newssvr21.news.prodigy.com>
Source record: 74167

I.C.U. and remember: often-times that responses are NOT
instantaneous- give them time (several minutes, up to 15
seems the norm for some of these newsgroups/emails) Jim NN7K

Henry Kolesnik wrote:
> If you see this, please let me know..
> I wonder what I have done?
>
> tnx
> Hank
>
>

2002. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 21:56:50 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <i_ydndMIYqgMWlzfRVn-tQ@comcast.com>
Source record: 74168

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c18cd5$1_2@spool9-west.superfeed.net...
> Tam/WB2TT wrote:
>> ... even though I am horizontally polarized.
>
> Couch potato? :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

There is a lot of truth in what you say.

Tam
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2003. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 22:47:12 UTC
From: Stagger Lee <SLee@houston-hunksoshit.com>
Message-ID: <ff6f6a230317a673d506a6bb1f4a6f13@msgid.frell.theremailer.net>
Source record: 74170
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

```
From: "John Smith" <assemblywiz...@gmail.com>
Newsgroups: rec.radio.amateur.antenna,rec.radio.amateur.policy
Subject: Post anonymously
Lines: 12
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit
X-Priority: 3
X-MSMail-Priority: Normal
X-Newsreader: Microsoft Outlook Express 6.00.2900.2180
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.2180
Message-ID: <aNmve.46$Rj1.11104383@news.sisna.com>
Date: Sat, 25 Jun 2005 17:37:26 -0700
NNTP-Posting-Host: 66.81.210.240
X-Complaints-To: newsabuse@ikano.com
X-Trace: news.sisna.com 1119746246 66.81.210.240 (Sat, 25 Jun
2005 18:37:26 MDT)
NNTP-Posting-Date: Sat, 25 Jun 2005 18:37:26 MDT
Organization: Internet News Service
X-Received-Date: Sat, 25 Jun 2005 18:37:26 MDT (news.sisna.com)

I am sure that everyone here has noticed there is much too much
attention paid to where posts originate from. And, there are
childish
personalities which look up where you are posting from--some with
malicious intent...

This URL will provide you with a means to be anonymous:
http://www.antifirewall.com/news.htm

This should allow everyone to put a stop to this bad behavior.

John
------------------------------------------------------------

You mean like how you use:

o1-dialup-66-81-210-240.rev.o1.com (66.81.210.240)

66.81.0.0 - 66.81.255.255
O1.com
1515 K St.
```

Suite 100
Sacramento, CA
US

NetEng, Option One
neteng@o1.com
+1-916-554-2121

66.81.112.0 - 66.81.223.255
O1 Dialup Services
1515 K Street
Suite 100
Sacramento, CA
US

NetEng, Option One
neteng@o1.com
+1-916-554-2121

2004. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 22:53:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c3l6jmhjctl60@corp.supernews.com>
Source record: 74169
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

I don't see the original posting here on rec.radio.amateur, but there are a few misconceptions in the followups which should be addressed.

Lancer wrote:
> On Tue, 28 Jun 2005 19:13:35 GMT, james <george@washington.edu> wrote:
>
>
>>On Tue, 28 Jun 2005 18:31:58 GMT, Lancer <lancer@rock..com> wrote:
>>
>>
>>>To have the measured SWR change with coax length, means you have
>>>current flowing on the outside of the coax. Your coax then becomes
>>>part of the antenna, so changing its length is changing the antenna
>>>length. This would change the feedpoint impedance and the SWR.

That's correct, except that coax loss will also cause the SWR to change with coax length. Loss will cause the SWR at the antenna (load) to always be greater than at the transmitter (source).

>>>
>>>Unless the line is carrying common mode currents that affect antenna
>>>impedance, changing coax length won't change the SWR, even if the
>>>antenna isn't matched.

Again correct except for overlooking the effect of coax loss.

But there's a real problem in communicating this. If you hook a 50 ohm SWR meter to the input of a 75 ohm, 300 ohm, or line of any impedance other than 50 ohms, the meter reading won't be the SWR on the transmission line. That can mislead people into thinking that the SWR is changing with line length when it actually isn't.

>>
>>********
>>
>>BS
>>
>>Common mode currents on the shield of coaxial cables do not alter the
>>feed impedance. Repeat ofter me. Common mode currents on the shield of
>>coaxial cables do not alter the feed impedance.

Why repeat it if it isn't true? The explanation given by Lancer was correct. If you change the length of the antenna, the feedpoint impedance will change. When you have common mode current flowing on the feedline, the feedline is part of the antenna; changing its length is

changing the antenna's length.

>>
>>The feed impedance of an antenna is solely determined by its physical
>>length and any load impedances within the antenna structure. Load
>>impedances can be stray capacitance with ground via metal objects
>>within the near field of the antenna or even a building.

You have to realize that a radiating feedline (one carrying common mode
current) IS part of the antenna structure.

>>
>>The "Magic" of an electrical halfwave transmission line is at a
>>precise frequency, the reflection of the load to the transmistter is
>>equal to the characteristic impedance of the transmission line
>>irregardless of what impedance it is terminated with.

This is true only of a lossless line. If the load impedance isn't far
from the line's characteristic impedance (i.e., the line's SWR is low),
a small amount of loss won't make much difference. However, if the line
SWR is high, even a small amount of loss can make a major change in the
impedance seen at the line's input. The effect is to skew the impedance
toward the line's Z0.

> Other lengths
>>have the load impedance reflected back and transformed by the length
>>of the coax. The coax then acts as a transformer. It will either step
>>up or step down the impeadnace of the load depending on the load
>>itself and the electrical length of the coax.

It's a little more complicated than that. The line doesn't simply
multiply or divide the impedance by a constant, like a transformer --
except in the special case of a quarter electrical wavelength line or
odd multiples thereof. In other cases, the line does transform the
impedance, but in a complex way in which the resistance and reactance
are transformed by different factors. And reactance can be present at a
line's input even when the load is purely resistive. A Smith chart is a
good visual aid in seeing what happens. Assuming a lossless line, the
impedance traverses a circle around the origin. The radius of the circle
corresponds to the line's SWR. With the chart, you can see all the
combinations of R and X which a given line can produce with a given load
by changing its length. Incidentally, loss causes the impedance to
spiral inward toward the origin as the line gets longer, showing how
loss skews the input impedance toward Z0.

>>
>>All a tuner does is electrically lengthen or shoten the coax by
>>introducing a lumped LC constant that helps present a resistive load
>>to the transmitter. The SWR at the feedline does not change. By
>>placing various different lengths of coax inline, you do the same
>>thing a tuner does, add a lumped LC constant.

As can be seen from the Smith chart, you can produce only particular combinations of R and X by changing the length of a line which has a given load impedance. Unless you're unusually lucky or have planned things carefully, none of these combinations will result in 50 + j0 ohms, the usual goal, at the line's input. In contrast, a tuner is able to adjust both R and X to produce, if designed right for the application, 50 + j0 for a wide range of load impedances.

It requires at least two adjustable components to achieve an impedance match from an arbitrary load impedance, because there are two separate quantities, R and X or impedance magnitude and phase, which have to be adjusted. Changing the line length is only one adjustment, so it can't be guaranteed to provide a match. If you could also change the line's Z0, for example, or the length of a stub, you'd have two adjustments and you could guarantee a match providing you have enough adjustment range.

>>
>>james
>
>
> So thats all my tuner does, lengthen or shorten the coax?
>
> Are you sure about that?

Rest assured, that's not all it does.

Roy Lewallen, W7EL

2005. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-28 23:12:31 UTC
From: WdntULik2no <someone@someisp.org>
Message-ID: <inmngeygcwrq14x.280620051612@kirk>
Source record: 74173

w8ji

please tell me some damn fool has not put you in a position to
influence people

you are an idiot

WdntULik2no
"W8JI" <w8ji@contesting.com> wrote in message
news:1119874390.757705.302360@g44g2000cwa.googlegroups.com...
> Please don't consider Chris as speaking for me, or accurately
> presenting everything I said.
>
> We all know how easy it is to lift selective portions of long
> exchanges
> and make things sound any way we like.
>
> The original topic was Sevik's 4:1 balun on a single core, where
> that
> balun is made up of two 1:1 ratio choke baluns with parallel inputs
> and
> series outputs. The imputs are excited in a transmission line mode
> (differentially) and the outputs in series. The balun cores provide
> only ground isolation through common mode impedance. I have a
> similar
> balun built by MFJ, and it has terrible balance. It actually is an
> offset voltage voltage balun.
>
> Early on I specifically excluded transformer-type baluns.
>
> I think the problem is Chris thinks we can feed a transmission line
> end-to-end on a single conductor and contain energy within the line
> area. As far as I see, there is nothing causing the line to operate
> in
> a TEM mode, but it behaves only as a simple 1:1 transformer.
>
> I beleive this is at the root of the poor efficiency and poor SWR
> bandwidth of Chris' "balun".
>
> The bandwidth problem would be caused because a transmission line in
> TEM mode would have distributed capacitance cancelling series
> inductance of the leads, a transformer winding does not. This also
> gives rise to the distributed capacitance tending to pull the load
> side
> to the voltage balance of the source winding, causing a problem with

> high frequency balance.
>
> The isolation transformer method has the advantage of much better
> low
> frequency isolation and allowing a single core, but falls on its
> face
> for SWR response, power handling for a given core size, and high
> frequency balance and common mode isolation.
>
> I think the real argument or disagreement is if the lines in a
> parallel
> or coaxial wound primary and secondary like Chris used are in TEM
> mode,
> or simply acting as a transformer. My contention is it is a
> transformer, and those who think any two parallel or concentric
> conductors when fed start-to-finish or tend-to-end on one conductor
> forces a TEM mode are not viewing the system correctly.
>
> It will be interesting to see what others think. I have a partial
> analysis on my web site in a 4:1 balun analysis , and I'll be adding
> more information to that as time permits.
>
> Please, just the technical facts. I'll speak for myself.
>
> 73 Tom
>

2006. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 00:51:10 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120006270.046937.70390@g43g2000cwa.googlegroups.com>
Source record: 74171
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

(I've snipped parts of Roy's original posting, indicated by ..., that I hope are not particularly relevant to my added comments.)

Roy Lewallen wrote:
> I don't see the original posting here on rec.radio.amateur, but there
> are a few misconceptions in the followups which should be addressed.
>
...

> >>>
> >>>Unless the line is carrying common mode currents that affect antenna
> >>>impedance, changing coax length won't change the SWR, even if the
> >>>antenna isn't matched.
>
> Again correct except for overlooking the effect of coax loss.
>
> But there's a real problem in communicating this. If you hook a 50 ohm
> SWR meter to the input of a 75 ohm, 300 ohm, or line of any impedance
> other than 50 ohms, the meter reading won't be the SWR on the
> transmission line. That can mislead people into thinking that the SWR is
> changing with line length when it actually isn't.
>

In addition, most hams (and other non-professionals -- and even many professionals) don't bother to check that their SWR meter is properly calibrated to the impedance they think it is. Most are nominally 50 ohms, but they can be built for any practical line impedance. Checking calibration is not all that difficult, if you take the time to do it. In addition, your nominally 50 ohm line (or 75 or whatever) can have an actual impedance 10% or more from the nominal value. If you have properly calibrated your meter to 50 ohms, and your line is 60 ohms, you would read 1.2:1 SWR when your line is actually 1:1. And if the SWR on the 60 ohm line is 1.2:1, that 50 ohm SWR meter can read anything between 1:1 and 1.44:1, depending on the line length and its load. Finally, though you may have checked that the meter to reads 1:1 with a 50 ohm load and infinity to 1 with a short or open load, the construction of inexpensive meters may cause them to have significant errors at other load impedances.

...

> >>
> >>The "Magic" of an electrical halfwave transmission line is at a
> >>precise frequency, the reflection of the load to the transmistter is
> >>equal to the characteristic impedance of the transmission line

> >>irregardless of what impedance it is terminated with.
>
> This is true only of a lossless line. If the load impedance isn't far
> from the line's characteristic impedance (i.e., the line's SWR is low),
> a small amount of loss won't make much difference. However, if the line
> SWR is high, even a small amount of loss can make a major change in the
> impedance seen at the line's input. The effect is to skew the impedance
> toward the line's Z0.

The piece that Roy quoted is so outrageous that I can easily believe he
didn't read it right, but I've re-read it several times, and it keeps
coming out the same: the "magical" halfwave line does NOT reflect an
impedance to the source (transmitter) equal to the LINE impedance as
the quoted section says, but it reflects the LOAD impedance (altered by
line loss as Roy says).

...

about tuners, Roy went on to write:

> It requires at least two adjustable components to achieve an impedance
> match from an arbitrary load impedance, because there are two separate
> quantities, R and X or impedance magnitude and phase, which have to be
> adjusted. Changing the line length is only one adjustment, so it can't
> be guaranteed to provide a match. If you could also change the line's
> Z0, for example, or the length of a stub, you'd have two adjustments and
> you could guarantee a match providing you have enough adjustment range.

In addition, two adjustable components in a particular configuration,
even if they are infinitely adjustable (and reasonably close to
lossless!!--a very tall order!) won't necessarily give you the ability
to transform any arbitrary impedance to 50 ohms. There may be whole
practical areas of the complex impedance plane left untransformable.
Also, the efficiency of a particular tuner topology for a given load
impedance may be very good or may be terrible, when using practical
components in the tuner. To reiterate what Roy wrote, it's important
to use the right topology for the job you need to do.

Cheers,
Tom

>
> >>
> >>james
> >
> >
> > So thats all my tuner does, lengthen or shorten the coax?
> >
> > Are you sure about that?
>
> Rest assured, that's not all it does.
>

> Roy Lewallen, W7EL

2007. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 01:11:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c3taeea0ufl5b@corp.supernews.com>
Source record: 74172
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Thanks to Tom for the comments and additions.

>. . .

[I've lost track of who said this:]

>>>>The "Magic" of an electrical halfwave transmission line is at a
>>>>precise frequency, the reflection of the load to the transmistter is
>>>>equal to the characteristic impedance of the transmission line
>>>>irregardless of what impedance it is terminated with.
>>

[Roy:]

>>This is true only of a lossless line. If the load impedance isn't far
>>from the line's characteristic impedance (i.e., the line's SWR is low),
>>a small amount of loss won't make much difference. However, if the line
>>SWR is high, even a small amount of loss can make a major change in the
>>impedance seen at the line's input. The effect is to skew the impedance
>>toward the line's Z0.
>

[Tom:]

> The piece that Roy quoted is so outrageous that I can easily believe he
> didn't read it right, but I've re-read it several times, and it keeps
> coming out the same: the "magical" halfwave line does NOT reflect an
> impedance to the source (transmitter) equal to the LINE impedance as
> the quoted section says, but it reflects the LOAD impedance (altered by
> line loss as Roy says).
> . . .

Wow, I certainly read that (top quote) too quickly. Tom is absolutely
right, as written it's very wrong, and I misread it. I retract my
statement about it's being "true only of a lossless line" -- of course
it's not true at all, but works as Tom says.

Roy Lewallen, W7EL

2008. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 03:37:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <75bd6$42c21768$97d55b49$3750@ALLTEL.NET>
Source record: 74174

Tom stands up and tells the world what he thinks We know who Tom is, and of his many accomplishments. He, unlike you, signs his name to his statements.

You have obviously failed to make a dent in the technical arena, or like Tom you would sign a cogent rebuttal as opposed to your school yard antics.

If you can't compete on a technical level, sit back down in the peanut gallery and learn grasshopper.

"WdntULik2no" <someone@someisp.org> wrote in message news:inmngeygcwrq14x.280620051612@kirk...
> w8ji
>
> please tell me some damn fool has not put you in a position to
> influence people
>
> you are an idiot
>
> WdntULik2no

2009. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 03:44:37 UTC
From: Steveo <girlyman@girlymen.gays.org>
Message-ID: <6wgmvhh1q0u65m5.280620052044@kirk>
Source record: 74076

hmmm, toothless old men with loud barks and radios

interesting

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:75bd6$42c21768$97d55b49$3750@ALLTEL.NET...
> Tom stands up and tells the world what he thinks We know who Tom is,
> and of
> his many accomplishments. He, unlike you, signs his name to his
> statements.
>
> You have obviously failed to make a dent in the technical arena, or
> like Tom
> you would sign a cogent rebuttal as opposed to your school yard
> antics.
>
> If you can't compete on a technical level, sit back down in the
> peanut
> gallery and learn grasshopper.
>
>
> "WdntULik2no" <someone@someisp.org> wrote in message
> news:inmngeygcwrq14x.280620051612@kirk...
>> w8ji
>>
>> please tell me some damn fool has not put you in a position to
>> influence people
>>
>> you are an idiot
>>
>> WdntULik2no
>
>
>

2010. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 03:49:46 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <t754c1d45j6gql5dv050j8l8igirtdmd44@4ax.com>
Source record: 74075
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On 28 Jun 2005 17:51:10 -0700, "K7ITM" <k7itm@aol.com> wrote in
<1120006270.046937.70390@g43g2000cwa.googlegroups.com>:

<snip>
>> But there's a real problem in communicating this. If you hook a 50 ohm
>> SWR meter to the input of a 75 ohm, 300 ohm, or line of any impedance
>> other than 50 ohms, the meter reading won't be the SWR on the
>> transmission line. That can mislead people into thinking that the SWR is
>> changing with line length when it actually isn't.
>>
>
>In addition, most hams (and other non-professionals -- and even many
>professionals) don't bother to check that their SWR meter is properly
>calibrated to the impedance they think it is. Most are nominally 50
>ohms, but they can be built for any practical line impedance. Checking
>calibration is not all that difficult, if you take the time to do it.
>In addition, your nominally 50 ohm line (or 75 or whatever) can have an
>actual impedance 10% or more from the nominal value. If you have
>properly calibrated your meter to 50 ohms, and your line is 60 ohms,
>you would read 1.2:1 SWR when your line is actually 1:1. And if the
>SWR on the 60 ohm line is 1.2:1, that 50 ohm SWR meter can read
>anything between 1:1 and 1.44:1, depending on the line length and its
>load. Finally, though you may have checked that the meter to reads 1:1
>with a 50 ohm load and infinity to 1 with a short or open load, the
>construction of inexpensive meters may cause them to have significant
>errors at other load impedances.

Impedance matching of an SWR meter is generally unimportant since most
SWR meters used for HF have a directional coupler that is much shorter
than the operating wavelength. Regardless, I'm not a big fan of SWR
meters -- they are good for detecting a major malfunction but that's
about it. Antenna tuning/matching is best done with a field strength
meter.

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2011. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 04:01:52 UTC
From: Steveo <girlyman@girlymen.gays.org>
Message-ID: <nceoaqqpc0a3yzz.280620052102@kirk>
Source record: 74078
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

```
if you have over a 2:1 standing wave you can do damage to your finals
or linear
```

"Frank Gilliland" <w&#65533;renut@NOSPAM&#65533;cehouse.net> wrote in message
news:t754c1d45j6gql5dv050j8l8igirtdmd44@4ax.com...
> On 28 Jun 2005 17:51:10 -0700, "K7ITM" <k7itm@aol.com> wrote in
> <1120006270.046937.70390@g43g2000cwa.googlegroups.com>:
>
> <snip>
>>> But there's a real problem in communicating this. If you hook a 50
>>> ohm
>>> SWR meter to the input of a 75 ohm, 300 ohm, or line of any
>>> impedance
>>> other than 50 ohms, the meter reading won't be the SWR on the
>>> transmission line. That can mislead people into thinking that the
>>> SWR is
>>> changing with line length when it actually isn't.
>>>
>>
>>In addition, most hams (and other non-professionals -- and even many
>>professionals) don't bother to check that their SWR meter is
>>properly
>>calibrated to the impedance they think it is. Most are nominally 50
>>ohms, but they can be built for any practical line impedance.
>>Checking
>>calibration is not all that difficult, if you take the time to do
>>it.
>>In addition, your nominally 50 ohm line (or 75 or whatever) can have
>>an
>>actual impedance 10% or more from the nominal value. If you have
>>properly calibrated your meter to 50 ohms, and your line is 60 ohms,
>>you would read 1.2:1 SWR when your line is actually 1:1. And if the
>>SWR on the 60 ohm line is 1.2:1, that 50 ohm SWR meter can read
>>anything between 1:1 and 1.44:1, depending on the line length and
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>>load. Finally, though you may have checked that the meter to reads
>>1:1
>>with a 50 ohm load and infinity to 1 with a short or open load, the
>>construction of inexpensive meters may cause them to have
>>significant
>>errors at other load impedances.
>
>

> Impedance matching of an SWR meter is generally unimportant since
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> SWR meters used for HF have a directional coupler that is much
> shorter
> than the operating wavelength. Regardless, I'm not a big fan of SWR
> meters -- they are good for detecting a major malfunction but that's
> about it. Antenna tuning/matching is best done with a field strength
> meter.
>
>
>
>
>
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via
> Encryption =----

2012. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 04:17:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c221c5$1_2@spool9-west.superfeed.net>
Source record: 74077
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:
> Impedance matching of an SWR meter is generally unimportant since most
> SWR meters used for HF have a directional coupler that is much shorter
> than the operating wavelength.

Point is that they are usually calibrated for Z0=50 ohms
and are in error when used in Z0 environments differing
from Z0=50 ohms, e.g. Z0=75 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2013. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 04:53:33 UTC
From: Buck <iam@this.site>
Message-ID: <i8a4c1hpmjuid9qsok1s8q22cm7t0gvt9o@4ax.com>
Source record: 74079
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Tue, 28 Jun 2005 15:53:03 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>>>>To have the measured SWR change with coax length, means you have
>>>>current flowing on the outside of the coax. Your coax then becomes
>>>>part of the antenna, so changing its length is changing the antenna
>>>>length. This would change the feedpoint impedance and the SWR.
>
>That's correct, except that coax loss will also cause the SWR to change
>with coax length. Loss will cause the SWR at the antenna (load) to
>always be greater than at the transmitter (source).

Would the changing of the coax lead to moving the SWR meter to a
different voltage point on the coax?

--
73 for now
Buck
N4PGW

2014. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 04:59:45 UTC
From: Larry Benko <lbenko@comcast.net>
Message-ID: <NaqdnUQmwIIZt1_fRVn-iw@comcast.com>
Source record: 74080

I just happened upon an App. note written by Philips
Semiconductors (ECO6907) titled "Design of HF wideband power
transformers" which states for both 4:1 and 9:1 transmission
line transformers that they CAN be wound on a single core if
desired for certain conditions (see sections 6.3, 6.4 and 6.6).

http://www.semiconductors.philips.com/acrobat_download/applicationnotes/ECO6907.pdf

73,
Larry, W0QE

2015. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 05:04:59 UTC
From: Buck <iam@this.site>
Message-ID: <pma4c1p508qkp9i88t4naol7ba9t48lb5r@4ax.com>
Source record: 74081
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Tue, 28 Jun 2005 20:49:46 -0700, Frank Gilliland
<wï¿½renut@NOSPAMï¿½cehouse.net> wrote:

> I'm not a big fan of SWR
>meters -- they are good for detecting a major malfunction but that's
>about it. Antenna tuning/matching is best done with a field strength
>meter.

A local retired instructor of some sort (military, i believe) has the
same opinion. He doesn't like SWR meters but instead measures all his
antennas by field strength meter.

I used to tune my Swan with one. I found when I used an SWR meter,
the minimum SWR dip was NEVER the maximum field strength reading. I
always had to raise the SWR to about 1.3:1 or so.

Around here, most of us know not to mention the performance of an
antenna to him if we only used an SWR meter or antenna analyzer. His
first question is "How did it do with the FSM?"

I believe he is right. Radios drop power when they don't like the SWR
and raise it when it does.

73
N4PGW

--
73 for now
Buck
N4PGW

2016. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 05:37:21 UTC
From: Owen <owen@no.where>
Message-ID: <fbc4c11igsegqf205th1m44qa9q53e49p6@4ax.com>
Source record: 74082

On Wed, 29 Jun 2005 01:04:59 -0400, Buck <iam@this.site> wrote:

>I used to tune my Swan with one. I found when I used an SWR meter,
>the minimum SWR dip was NEVER the maximum field strength reading. I
>always had to raise the SWR to about 1.3:1 or so.

The probable reason for maximum power output not coinciding with the plate current dip is imperfect neutralisation (whether or not the stage is neutralised). If you have a neutralisation adjustment, you can get the two to coincide by properly adjusting the neutralisation.

You can use this coincidence as a quite sensitive indication of optimal neutralisation if you use a digital meter to monitor plate current, and the power out indicator to monitor RF output power. Adjust the tuning and loading for rated power into a dummy load, check the tune cap is peaked for max Po, observe the plate current, carefully dip the plate current, noting whether the dip was left or right of max Po. Now tweak the neutralisation until the two coincide.

When it is all done properly, the "dip" of the plate current should be symmetric, ie it should be as "sharp" approaching from one side as the other. (Asymetric dips are another symptom of non-omptimal neutralisation.

Owen
--

2017. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 07:22:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c4j1hg9p58hec@corp.supernews.com>
Source record: 74083
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Buck wrote:
>
> Would the changing of the coax lead to moving the SWR meter to a
> different voltage point on the coax?

Sort of, but not exactly. Let's take an example. I'll keep the values purely real to help folks who aren't familiar with complex math, but keep in mind that these are special cases and a full treatment would be somewhat more involved. I'll also make all the transmission lines lossless to simplify things.

An SWR meter really just provides another way of reporting the impedance it sees. You can verify this by connecting pure resistances of various values to its output. For example, a (properly calibrated and operating) 50 ohm SWR meter will report 1:1 if you connect its output to a 50 ohm resistor. If you connect it to either a 25 or 100 ohm resistor, it reports 2:1. It does this despite the fact that there's no transmission line at all connected to its output. Some people can put up a huge smokescreen and waving of hands about reflected waves of one kind or another, but at the end of the day the SWR meter can't tell the difference between a resistor and a transmission line terminated with a load, if the impedances the meter sees are the same. It's sensitive only to impedance; it has no way of knowing even if a transmission line is connected to its output, let alone what the transmission line's SWR or even characteristic impedance is.

Now put a half wavelength piece of 50 ohm coax between the SWR meter and those resistors. The SWR meter will still see the same impedances as before, so it'll report the same SWRs. Now, though, there really is a transmission line connected to its output. And because the meter is a 50 ohm meter and the line has a 50 ohm Z0, the SWR meter reading is the same as the actual SWR on the line. When the load is 50 ohms, the line's SWR is 1:1 and the meter sees 50 ohms so it reports 1:1. When the load is 25 ohms, the line's SWR is 2:1, and the meter sees 25 ohms and reports 2:1. When the load is 100 ohms, the line's SWR is 2:1, and the meter sees 100 ohms and reports 2:1.

Next experiment: Connect the SWR meter through a *quarter* wavelength of 50 ohm line to a 100 ohm load. Now the impedance looking into the line is 25 ohms instead of 100. But the SWR meter reads 2:1 when it sees 25 ohms as well as 100, so it still reads 2:1, which is also still the SWR on the 50 ohm line. You can change the length of the 50 ohm line all you want and, if it's lossless, the line's actual SWR stays the same -- but the impedance at the input end of the line changes. For a 100 ohm load,

when the line is any even number of half wavelengths long, the input Z is 100 ohms. When the line is any odd number of quarter wavelengths long, the input Z is 25 ohms. At other lengths, the impedance is both resistive and reactive, but the line's SWR is always 2:1. And the SWR meter interprets all these possible impedances as 2:1, and that's what it reads. The line SWR doesn't change as you change its length, and the SWR meter reading doesn't change, either.

Now instead of a 50 ohm line, let's connect a half wavelength 100 ohm line to the output of the same 50 ohm SWR meter and hook that to a 50 ohm resistive load. The line's actual SWR is 2:1 and, just like any lossless line, the SWR stays the same regardless of its length. If the transmission line is an even number of half wavelengths long we'll have 50 ohms at the input and the SWR meter will read 1:1, since it's a 50 ohm meter and interprets 50 ohms as 1:1. If we change the line length to a quarter wavelength, the input impedance will be 200 ohms, which the 50 ohm SWR meter will interpret and report as 4:1. So by changing the line length from a half to a quarter wavelength we've changed the SWR meter reading from 1:1 to 4:1, even though the line's actual SWR was 2:1 all along. That's what I was talking about. The SWR meter makes assumptions about the SWR on the line from the impedances it sees. The line transforms the load impedance in a different way than a 50 ohm line would. The SWR meter then assumes an incorrect SWR value for the line, and this incorrect value changes as the line length changes.

The same thing happens if the line has a 50 ohm characteristic impedance and the meter is designed for some other Z0. The lesson is that an SWR meter shows the actual SWR on a transmission line connected to its output only if the SWR meter is designed for the same Z0 as the line.

Too often, people say "The SWR is. . .", but really mean "The SWR meter reading is. . .". As you've seen, the two can often be very different. When you see the SWR reading changing as you change the line length, it doesn't necessarily mean that the line's SWR is actually changing.

Remember, in the preceding discussion I've assumed for simplicity that all lines were lossless. In the real world, no line is, so the actual line SWR will always be higher at the load than the source (unless of course it's 1:1 at the load).

Roy Lewallen, W7EL

2018. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 08:32:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9tmat$pj3$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74084
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Roy, to cut things short, why don't you just say SWR meters don't measure SWR on anything. All they do is indicate whether or not the transmitter is terminated with its correct load resistance. So they are quite useful.

They won't even tell you what the load resistance actually is unless the load is exactly correct.

Stop fooling and confusing yourselves. The solution to everybody's problems is simple - just change the name of the thing to TLI. (Transmitter Loading Indicator).

Reg, G4FGQ

2019. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 09:08:59 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <Lytwe.113572$xm3.104169@attbi_s21>
Source record: 74085

"Larry Benko" <lbenko@comcast.net> wrote in message
news:NaqdnUQmwIIZt1_fRVn-iw@comcast.com...
> I just happened upon an App. note written by Philips
> Semiconductors (ECO6907) titled "Design of HF wideband power
> transformers" which states for both 4:1 and 9:1 transmission
> line transformers that they CAN be wound on a single core if
> desired for certain conditions (see sections 6.3, 6.4 and 6.6).
>
>
http://www.semiconductors.philips.com/acrobat_download/applicationnotes/ECO6907.pdf
>
> 73,
> Larry, W0QE

And, that comes in TWO parts. ECO6907 and ECO 7213. BOTH wonderful
resources, and both apply to the discussion here. (They DO call them
"conventional transformers" and not Baluns.)

W4ZCB

2020. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 09:54:33 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <fW537eGZ$mwCFAB1@ifwtech.co.uk>
Source record: 74086
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Reg Edwards wrote:
>Roy, to cut things short, why don't you just say SWR meters don't
>measure SWR on anything. All they do is indicate whether or not the
>transmitter is terminated with its correct load resistance. So they
>are quite useful.
>
>They won't even tell you what the load resistance actually is unless
>the load is exactly correct.
>
>Stop fooling and confusing yourselves. The solution to everybody's
>problems is simple - just change the name of the thing to TLI.
>(Transmitter Loading Indicator).

Or - recalling that what the meter actually measures is the reflection coefficient - why not go back to the old name of "Reflectometer"?

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2021. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 10:21:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c4ti8qj23luef@corp.supernews.com>
Source record: 74087
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Thanks very much to Owen for pointing out the following errors in my recent posting:

Roy Lewallen wrote:
> . . .
> Next experiment: Connect the SWR meter through a *quarter* wavelength of
> 50 ohm line to a 100 ohm load. Now the impedance looking into the line
> is 25 ohms instead of 100. But the SWR meter reads 2:1 when it sees 25
> ohms as well as 100, so it still reads 2:1, which is also still the SWR
> on the 50 ohm line. You can change the length of the 50 ohm line all you
> want and, if it's lossless, the line's actual SWR stays the same -- but
> the impedance at the input end of the line changes. For a 100 ohm load,
> when the line is any even number of half wavelengths long, the input Z
> is 100 ohms. . .

That last sentence should be "For a 100 ohm load, when the line is *any whole number* of half wavelengths long, the input Z is 100 ohms."

Likewise,

> Now instead of a 50 ohm line, let's connect a half wavelength 100 ohm
> line to the output of the same 50 ohm SWR meter and hook that to a 50
> ohm resistive load. The line's actual SWR is 2:1 and, just like any
> lossless line, the SWR stays the same regardless of its length. If the
> transmission line is an even number of half wavelengths long we'll have
> 50 ohms at the input and the SWR meter will read 1:1, since it's a 50
> ohm meter and interprets 50 ohms as 1:1.

"an even number of half wavelengths" should be "any whole number of half wavelengths".

I appreciate the corrections, and encourage anyone who spots errors to bring them to my attention, or the newsgroup's.

Roy Lewallen, W7EL

2022. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 12:10:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c290c6$1_2@spool9-west.superfeed.net>
Source record: 74088
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Steveo wrote:
> if you have over a 2:1 standing wave you can do damage to your finals
> or linear

Depends on what one is running. My IC-706 folds back
automatically and protects itself. My SGC-500 linear
is advertised to tolerate an SWR of up to 6:1.
--
73, Cecil http://www.qsl.net/w5dxp

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---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2023. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 12:48:27 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42c298f8$1_2@newsfeed.slurp.net>
Source record: 74089

"Caveat Lector" wrote:
> A discone has been described as a dummy load in the sky,
> wide band but no gain.

That is an incorrect description, though. A discone has zero loss, NOT zero gain. It has ~ unity gain with respect to a 1/2-wave dipole, i.e. ~ 2.15 dBi gain. OTOH a perfect dummy load has infinite loss. Big difference.

RF

2024. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 13:00:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c29c6c$1_1@spool9-west.superfeed.net>
Source record: 74090
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Roy Lewallen wrote:
> Some people can put up a huge
> smokescreen and waving of hands about reflected waves of one kind or
> another, but at the end of the day the SWR meter can't tell the
> difference between a resistor and a transmission line terminated with a
> load, if the impedances the meter sees are the same. It's sensitive only
> to impedance;

A 20K ohms/volt Simpson may yield an irrelevant screen voltage
reading for a pentode because it loads the circuit down. Hand
waving aside, any instrument can be misused.

An SWR meter designed and calibrated for a Z0=50 standing-wave
environment may yield an irrelevant reading when operated outside
of a Z0=50 ohm standing-wave environment.
--
73, Cecil http://www.qsl.net/w5dxp

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2025. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 13:16:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c2a02d$1_2@spool9-west.superfeed.net>
Source record: 74091
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Reg Edwards wrote:
> Roy, to cut things short, why don't you just say SWR meters don't
> measure SWR on anything. All they do is indicate whether or not the
> transmitter is terminated with its correct load resistance. So they
> are quite useful.

Reg, how about my 450 ohm SWR meter? It just sits there
reading somewhere between 6:1 and 12:1.
--
73, Cecil http://www.qsl.net/w5dxp

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2026. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 13:28:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c2a2e9$1_1@spool9-west.superfeed.net>
Source record: 74092
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Ian White GM3SEK wrote:

> Reg Edwards wrote:
>> Stop fooling and confusing yourselves. The solution to everybody's
>> problems is simple - just change the name of the thing to TLI.
>> (Transmitter Loading Indicator).
>
> Or - recalling that what the meter actually measures is the reflection
> coefficient - why not go back to the old name of "Reflectometer"?

Trouble is, during steady-state, they only measure the virtual
reflection coefficient which is itself confusing since it is not
the same as the physical reflection coefficient measured by a TDR.
--
73, Cecil http://www.qsl.net/w5dxp

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2027. Re: Post anonymously

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 13:46:24 UTC
From: nm5k@wt.net
Message-ID: <1120052784.504630.213820@z14g2000cwz.googlegroups.com>
Source record: 74093
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy

I am sure that everyone here has noticed there is much too much
attention paid to where posts originate from.

No, Can't say that I have...I have better things to do, in general..

And, there are childish
personalities which look up where you are posting from--some with
malicious intent...

Sure....They gotta hop a united jet just to come look you up..
Right.... I really doubt you are worth the price of the airfare...

This URL will provide you with a means to be anonymous:
http://www.antifirewall.com/news.htm

Who wants to be anonymous? If I didn't ID myself, people
would wander upon the earth in a constant state of confusion...
They might think I was Mickey Mouse...Or Ronald Raygun...
Or...Julio Lopez...Or shudder....William Clinton....

This should allow everyone to put a stop to this bad behavior.

Heck, I can save a lot of time here.
My address is 11119 Burdine Houston, TX..
Make my day, you BTK wannabees....
MK

2028. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 13:55:08 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42c2a899_3@newsfeed.slurp.net>
Source record: 74094
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

"Cecil Moore" wrote:
> An SWR meter designed and calibrated for a Z0=50 standing-wave
> environment may yield an irrelevant reading when operated outside
> of a Z0=50 ohm standing-wave environment.

Elaborating, an SWR meter will produce ~ accurate readings for an unknown termination connected to it via a lossless transmission line of any length, as long as that line has the same Zo as the sample section in the SWR meter.

It is only when the transmission line Zo varies from the Zo of the SWR meter line section that accurate measurement of load SWR is problematic.

Selecting line lengths and line impedances to make an SWR meter and/or tx "happy" when connected to an antenna doesn't necessarily mean that the all components in the r-f output system have low SWR. The tx may be able to deliver more power to the net load under those conditions, but SWR may still exist on the transmission line capable of causing its failure.

RF

2029. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 14:05:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d9u9qn$38d$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 74095
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

"Ian White wrote -
>Stop fooling and confusing yourselves. The solution to everybody's
> >problems is simple - just change the name of the thing to TLI.
> >(Transmitter Loading Indicator).
>
> Or - recalling that what the meter actually measures is the
reflection
> coefficient - why not go back to the old name of "Reflectometer"?
>
==========

It does NOT read the reflection coefficient. It reads only half of it. At least half of the information lies in the angle of the RC - which is disregarded, ignored, by the so-called meter.

The magnitude of the RC without its angle is just another worthless number. It can't be used for anything except to calculate a fictional SWR.

Reg, G4FGQ

2030. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 14:45:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c2b501$1_1@spool9-west.superfeed.net>
Source record: 74096
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Reg Edwards wrote:
> The magnitude of the RC without its angle is just another worthless
> number. It can't be used for anything except to calculate a fictional
> SWR.

Actually, it is pretty useful for a Z0-matched system
since there is one and only one unique solution at the
Z0-match point.

In a Z0-matched system, all forward and reflected voltages
and currents are at the reference zero degrees or at 180
degrees so all the phase angles are known without measuring
them. The physical reflection coefficient is a function of
Z01 and Z02 at a Z0-match point. The sign of the reflection
coefficient corresponds to either zero degrees or 180 degrees
and depends on whether (Z01 < Z02) or (Z01 > Z02).

Since the great majority of amateur radio systems are close
to a Z0-match, this becomes a useful analysis tool for the
most common cases.
--
73, Cecil http://www.qsl.net/w5dxp

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2031. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 15:07:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4d77c$42c2b92d$97d55b49$22834@ALLTEL.NET>
Source record: 74097
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

What is the reason a 2:1 SWR can cause such havoc?

How can I avoid this catastrophic condition?

I feed my dipoles with 450 Ohm ladder line, but the last 20 feet or so is 50 Ohm coax, I guess that makes it work ok. I haven't blown up my finals yet.

Lions and tigers and bears Oh my...

"Steveo" <girlyman@girlymen.gays.org> wrote in message
news:nceoaqqpc0a3yzz.280620052102@kirk...
> if you have over a 2:1 standing wave you can do damage to your finals
> or linear

2032. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 16:05:32 UTC
From: james <george@washington.edu>
Message-ID: <93i5c1pcn2i0blgene4ukpc5db6aojffnf@4ax.com>
Source record: 74098
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Tue, 28 Jun 2005 22:15:18 GMT, Lancer <lancer@rock..com> wrote:

>So thats all my tuner does, lengthen or shorten the coax?
>
>Are you sure about that?
****

Essentially yes. Without having to go into detailed mathematics, it is
the simplest form to explain what is happening.

james

2033. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 16:08:44 UTC
From: james <george@washington.edu>
Message-ID: <87i5c1t902ovg61auib3djrsih4qfuh9nh@4ax.com>
Source record: 74100
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Tue, 28 Jun 2005 15:53:03 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>It's a little more complicated than that. The line doesn't simply
>multiply or divide the impedance by a constant, like a transformer --
>except in the special case of a quarter electrical wavelength line or
>odd multiples thereof.
***

Roy

I believe this thread started on rec.radio.cb

and yes your correct here. I just did not want to get into great
details on quarter wave sections and uses of transmission lines as
lumped elements. I though that was beyond the scope of the original
post. I am kind of sorry that I even mentions what I did.

james

2034. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 16:08:56 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <555b3$42c2c7a0$97d55b49$11968@ALLTEL.NET>
Source record: 74099
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Balderdash!

"james" <george@washington.edu> wrote in message
news:93i5c1pcn2i0blgene4ukpc5db6aojffnf@4ax.com...
> On Tue, 28 Jun 2005 22:15:18 GMT, Lancer <lancer@rock..com> wrote:
>
> >So thats all my tuner does, lengthen or shorten the coax?
> >
> >Are you sure about that?
> ****
>
> Essentially yes. Without having to go into detailed mathematics, it is
> the simplest form to explain what is happening.
>
> james

2035. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 16:18:26 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1120061906.408873.75410@g14g2000cwa.googlegroups.com>
Source record: 74101
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

if you have over a 2:1 standing wave you can do damage to your finals
or linear >>

Oh brother. Here we go again with more nonsense and myths about SWR!

73 Tom

2036. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 16:32:28 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1120062748.889327.298110@f14g2000cwb.googlegroups.com>
Source record: 74102

just happened upon an App. note written by Philips
Semiconductors (ECO6907) titled "Design of HF wideband power
transformers" which states for both 4:1 and 9:1 transmission
line transformers that they CAN be wound on a single core if
desired for certain conditions (see sections 6.3, 6.4 and 6.6).
http://www.semiconductors.philips.com/acrobat_download/applicationnot...

73,
Larry, W0QE >>

Hi Larry,

Don't fall into the trap of swallowing out of context quotes by Trask.
That's an old tired game, and it only results in everyone chasing their
tails to argue about nothing.

1.) I very specifically excluded primary-secondary type transformers
from the single core current balun statement.

2.) I very specifically was speaking of a dual transmission line 1:1
balun Sevik described using two 1:1 transmission line current baluns on
one core.

If you can think of a way to build a transmission line balun that way
that is a current balun, please let us all know. No one has been able
to do it so far.

Calling a primary-secondary transformer a "transmission line" does not
count, so no "creative" ways to describe something following Lenz's
laws rather than TEM mode is necessary. Everyone already knows a
conventional primary secondary transformer will work.

73 Tom

2037. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 17:00:11 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11c5kse2sjldg9f@corp.supernews.com>
Source record: 74103
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Reg Edwards wrote:

> Roy, to cut things short, why don't you just say SWR meters don't
> measure SWR on anything.

He did, he just felt compelled to add a page or so of explaination.

> All they do is indicate whether or not the
> transmitter is terminated with its correct load resistance. So they
> are quite useful.

Well, to be picky all they do is indicate the divergence from the Zo of the meter, in a certain way. If the TX is designed for that Zo then they do what you say, and they're quite useful.

> They won't even tell you what the load resistance actually is unless
> the load is exactly correct.

Yes
>
> Stop fooling and confusing yourselves. The solution to everybody's
> problems is simple - just change the name of the thing to TLI.
> (Transmitter Loading Indicator).

Hmm. I'll stick with SWR meter -- which it is if it's used properly.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2038. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 17:11:14 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11c5lh5iufsjd91@corp.supernews.com>
Source record: 74104
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Buck wrote:

> I believe he is right. Radios drop power when they don't like the SWR
> and raise it when it does.
>
That depends on the radio.

Without SWR protection one with a class C final, like the ones in the little QRP rigs I have lying around, will deliver more power if it sees a lower RF impedance at the final transistor than it was designed for. It will also overheat said final transistor* and possibly damage it. This will happen for some SWR mismatches but not all.

Again without SWR protection one with a class AB or B final, properly tuned for a 50 ohm resistive load, will deliver less power for some mismatches (the same mismatches that would be _higher_ power for the class C final). With other mismatches it would exhibit higher gain but more distortion. At some mismatch and level of drive you could probably expose the finals to too much power dissipation, too high an RF current or too high an RF voltage, and do damage. This depends _heavily_ on the design of the final stage.

With SWR protection, of course, the radio will automatically back off, perhaps even in a way that will do some good.

So I will use an SWR meter to keep the transmitter happy, and a field strength meter to make sure my antenna is doing it's job.

* assuming I got the heatsink design right, neither overly conservative nor overly optimistic.

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2039. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 17:24:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c2da40$1_1@spool9-west.superfeed.net>
Source record: 74105
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> Lancer <lancer@rock..com> wrote:
>>So thats all my tuner does, lengthen or shorten the coax?
>>
>>Are you sure about that?
>
> Essentially yes. Without having to go into detailed mathematics, it is
> the simplest form to explain what is happening.

If you include the possibility of changing the Z0 of the
coax as well as the length, you will be closer to the truth.
--
73, Cecil http://www.qsl.net/w5dxp

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2040. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 18:13:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c5p72ikr0mg90@corp.supernews.com>
Source record: 74035
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

> Buck wrote:
>
> I believe he is right. Radios drop power when they don't like the SWR
> and raise it when it does.

This is an illustration of a common problem. It's really improper *impedances* presented to the radio that disturb it; it doesn't know or care about the actual SWR on whatever transmission line may or may not be connected. Transmitters typically specify and show this load impedance as "SWR". But they can't tell the difference between a half wavelength 50 ohm line with 100 ohm load, which has a line SWR of 2:1; any length of 100 ohm line with a 100 ohm load, which has a line SWR of 1:1; a quarter wavelength of 300 ohm line with a 900 ohm load, which has a line SWR of 3:1; or a 100 ohm resistor. All these and an infinite number of other combinations will present 100 ohms to the rig, all will cause the rig's SWR meter to read 2:1, and all will have exactly the same effect.

Roy Lewallen, W7EL

2041. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 20:12:56 UTC
From: james <george@washington.edu>
Message-ID: <9606c1doomd02ustt7pvrsnkjd0lkjv173@4ax.com>
Source record: 74106
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Tue, 28 Jun 2005 21:01:52 -0700, "Steveo"
<girlyman@girlymen.gays.org> wrote:

>if you have over a 2:1 standing wave you can do damage to your finals
>or linear
>
*****

Only if you are exceeding the power dissapation of the devices.
Considering the way most CBers use radios and amplifiers, your
statement maybe more ture than false.

Generaly if the power disapation of the finals is not exceeded and
there is sufficient margin to handle the reflected power, it will just
dissapate as heat in the output circuits and the fianls. Then this is
only true if the reflection coefficient of the radio is zero. If other
than zero then there will be some of the antenna power reflected back
to the transmitter reflected back to the load. Then the rest is
dissapated as heat. Then you get all kinds of funny things happening
inside the coax. But that is another subject.

james

>
>"Frank Gilliland" <wï¿½renut@NOSPAMï¿½cehouse.net> wrote in message
>news:t754c1d45j6gql5dv050j8l8igirtdmd44@4ax.com...
>> On 28 Jun 2005 17:51:10 -0700, "K7ITM" <k7itm@aol.com> wrote in
>> <1120006270.046937.70390@g43g2000cwa.googlegroups.com>:
>>
>> <snip>
>>>> But there's a real problem in communicating this. If you hook a 50
>>>> ohm
>>>> SWR meter to the input of a 75 ohm, 300 ohm, or line of any
>>>> impedance
>>>> other than 50 ohms, the meter reading won't be the SWR on the
>>>> transmission line. That can mislead people into thinking that the
>>>> SWR is
>>>> changing with line length when it actually isn't.
>>>>
>>>
>>>In addition, most hams (and other non-professionals -- and even many
>>>professionals) don't bother to check that their SWR meter is
>>>properly
>>>calibrated to the impedance they think it is. Most are nominally 50
>>>ohms, but they can be built for any practical line impedance.

>>>Checking
>>>calibration is not all that difficult, if you take the time to do
>>>it.
>>>In addition, your nominally 50 ohm line (or 75 or whatever) can have
>>>an
>>>actual impedance 10% or more from the nominal value. If you have
>>>properly calibrated your meter to 50 ohms, and your line is 60 ohms,
>>>you would read 1.2:1 SWR when your line is actually 1:1. And if the
>>>SWR on the 60 ohm line is 1.2:1, that 50 ohm SWR meter can read
>>>anything between 1:1 and 1.44:1, depending on the line length and
>>>its
>>>load. Finally, though you may have checked that the meter to reads
>>>1:1
>>>with a 50 ohm load and infinity to 1 with a short or open load, the
>>>construction of inexpensive meters may cause them to have
>>>significant
>>>errors at other load impedances.
>>
>>
>> Impedance matching of an SWR meter is generally unimportant since
>> most
>> SWR meters used for HF have a directional coupler that is much
>> shorter
>> than the operating wavelength. Regardless, I'm not a big fan of SWR
>> meters -- they are good for detecting a major malfunction but that's
>> about it. Antenna tuning/matching is best done with a field strength
>> meter.
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>> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
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2042. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 20:20:43 UTC
From: james <george@washington.edu>
Message-ID: <im06c11lvbdi73fmgk77nepcflev1dbkp9@4ax.com>
Source record: 74107
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 11:07:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>What is the reason a 2:1 SWR can cause such havoc?
>
>How can I avoid this catastrophic condition?
>
>I feed my dipoles with 450 Ohm ladder line, but the last 20 feet or so is 50
>Ohm coax, I guess that makes it work ok. I haven't blown up my finals yet.
>
>Lions and tigers and bears Oh my...
*****

Actually can happen if you push the finals to where there is
insufficeint margin to the maximum heat dissapation. Tubes are a bit
more forgiving. Transistor inadequately heatsinked and overdriven,
typical CB usage, often have little of no margin for heat dissapation.

If the transmitter has a refelction coefficient of zero and the load
say .3, then that reflected power from the load is dissapated as heat
in the output circuits and any final transistors or tubes. Now if the
radio has a reflection coefficient other than zero that will lessen
the heat dissapation on the transimiiter. Now you get load and source
reflections convoluting within the transmission line.

You ought to model a 400 Mhz square wave with source and load
refelctions coefficients other than zero. It can get ugly

james

2043. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:07:26 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <dq26c11rf35hrekfgms8lh0k8lh42mssio@4ax.com>
Source record: 74108
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Tue, 28 Jun 2005 23:17:15 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote in <42c221c5$1_2@spool9-west.superfeed.net>:

>Frank Gilliland wrote:
>> Impedance matching of an SWR meter is generally unimportant since most
>> SWR meters used for HF have a directional coupler that is much shorter
>> than the operating wavelength.
>
>Point is that they are usually calibrated for Z0=50 ohms
>and are in error when used in Z0 environments differing
>from Z0=50 ohms, e.g. Z0=75 ohms.

The point is that the error is insignificant when the directional
coupler is much shorter than the wavelength. The error is even more
insignificant when there are a host of variables and confounds between
the SWR meter and the transmitted field that can (and frequently do)
affect the objective -- field strength. It's much simpler (and just
plain logical) to measure the field strength directly instead of
measuring an abstract value halfway towards the objective and relying
on nothing more than speculation that the rest is working according as
expected.

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2044. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:28:01 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <UKCdnaR4hsnQj17fRVn-hg@comcast.com>
Source record: 74109
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

"Frank Gilliland" <w&#65533;renut@NOSPAM&#65533;cehouse.net> wrote in message
news:dq26c11rf35hrekfgms8lh0k8lh42mssio@4ax.com...
> On Tue, 28 Jun 2005 23:17:15 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote in <42c221c5$1_2@spool9-west.superfeed.net>:
>
>>Frank Gilliland wrote:
>>> Impedance matching of an SWR meter is generally unimportant since most
>>> SWR meters used for HF have a directional coupler that is much shorter
>>> than the operating wavelength.
>>
>>Point is that they are usually calibrated for Z0=50 ohms
>>and are in error when used in Z0 environments differing
>>from Z0=50 ohms, e.g. Z0=75 ohms.
>
>
> The point is that the error is insignificant when the directional
> coupler is much shorter than the wavelength.

It is the directional coupler that is balanced for a particular value of Z0.

Tam/WB2TT

> The error is even more
> insignificant when there are a host of variables and confounds between
> the SWR meter and the transmitted field that can (and frequently do)
> affect the objective -- field strength. It's much simpler (and just
> plain logical) to measure the field strength directly instead of
> measuring an abstract value halfway towards the objective and relying
> on nothing more than speculation that the rest is working according as
> expected.
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> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
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2045. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:37:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c31581$1_2@spool9-west.superfeed.net>
Source record: 74110
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:
>>Point is that they are usually calibrated for Z0=50 ohms
>>and are in error when used in Z0 environments differing
>>from Z0=50 ohms, e.g. Z0=75 ohms.
>
> The point is that the error is insignificant when the directional
> coupler is much shorter than the wavelength.

Nope, that's not the point at all. It is true that a 50 ohm
SWR meter designed for HF may not work on 70 cm but the error
I'm talking about is the calibration error in a 50 ohm SWR meter
designed for HF and used on HF in, for instance, a Z0 = 450 ohm
environment instead of its calibrated-for 50 ohm environment. It
works perfectly in a 50 ohm environment at the HF frequency of
operation. Here's the proof using a 50 ohm SWR meter:

XMTR--1/2WL 450 ohm line--SWR meter--1/2WL 450 ohm line--50 ohm load

The 50 ohm SWR meter will read 1:1, nowhere near the actual SWR

XMTR--1/4WL 450 ohm line--SWR meter--1/4WL 450 ohm line--50 ohm load

The 50 ohm SWR meter will read 81:1, nowhere near the actual SWR

An SWR meter calibrated for 450 ohms will correctly read 9:1
in both cases.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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2046. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:42:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c316d4$1_1@spool9-west.superfeed.net>
Source record: 74111
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> If the transmitter has a refelction coefficient of zero and the load
> say .3, then that reflected power from the load is dissapated as heat
> in the output circuits and any final transistors or tubes.

Sometimes yes, sometimes no. If the reflected current arrives out
of phase with the forward current, then the final dissipation can
actually be *reduced* by the mismatch.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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2047. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:49:53 UTC
From: james <george@washington.edu>
Message-ID: <u266c1hf4rqb7t1d9no5ur6699s1e0rq16@4ax.com>
Source record: 74112
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Sometimes yes, sometimes no. If the reflected current arrives out
>of phase with the forward current, then the final dissipation can
>actually be *reduced* by the mismatch.
*****

Power is power. Phase is not a problem. Take the mafnitude of the
transmitted power and teh magnitude of the reflected power. The
results are phaseless. The magnitudes add linearly.

QED

james

2048. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:50:51 UTC
From: james <george@washington.edu>
Message-ID: <cc66c1tv6d0nk86i8bqd26rob1b745deko@4ax.com>
Source record: 74113
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 17:28:01 -0400, "Tam/WB2TT"
<t-tammaru@c0mca$t.net> wrote:

>It is the directional coupler that is balanced for a particular value of Z0.
>
>Tam/WB2TT
*****

Correct

james

2049. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 21:53:29 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120082009.184166.165960@f14g2000cwb.googlegroups.com>
Source record: 74114
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote, among other things, "The point is that the error is insignificant when the directional coupler is much shorter than the wavelength."

Certainly "directional couplers" for HF may be built at essentially zero length, and ideally would have exactly zero length, monitoring the current and voltage at a single point on a line. Then SWR or reflection coefficient magnitude or even complex reflection coefficient may be calculated under the assumption we know the desired reference impedance. But if the equipment combines the voltage and current samples in the wrong ratio, you will get the WRONG answer. Even if the coupler looks like a perfect 50 ohms impedance section of transmission line (with some attenuation), the error _in_measurement_output_ can be significant indeed. Just because the coupler looks like a 50 ohm line to the line it's hooked to doesn't mean it will read zero reflection when IT's presented with a 50 ohm load.

And by the way, not everyone who measures and cares very much about SWR (or reflection coefficient) cares a whit about field strength. Not all loads are antennas.

Indeed, as Reg says, we might do better in amateur applications to consider the SWR meter as an indicator of the degree to which we're presenting a transmitter with the desired load. That's really what we're using it for, most of the time. It may ALSO be interesting to know the field strength, but please be aware that a transmitter's distortion products may be significantly higher if it's presented the wrong load impedance, even though the power output may be increased. Field strength alone is not acceptable to me as a means to adjust an antenna load to a transmitter, or as a way to adjust the operating point of the transmitter.

Cheers,
Tom

2050. Top-loaded folded monopole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 22:16:05 UTC
From: Brian <vertfan2@no1net.net>
Message-ID: <F4Fwe.1038$8f7.971@newsread1.news.pas.earthlink.net>
Source record: 74115

Could someone help me analyze my new vertical? It works fine on rx, but I don't want to hurt anything when I actually transmit....

I've seen folded dipoles with short lengths of wire attached to their ends. I guess this is to make up for the velocity factor of the twinlead. Is this really beneficial, or should one just be happy with a somewhat smaller antenna with no wire extensions?

Here's the real question:

I thought I'd try this on my 20 meter folded vertical but found that it worked best when the short length of wire on the end was taped back down the top of the twin-lead rather than extending the overall length of the antenna.

(thanks to everyone here for straightening out the myth about reduced ground losses for folded monopoles btw...)

I borrowed a friends antenna analyzer and with the tail folded back down on the twin lead I was able to get the reactance to zero on some freqs.

Here's the setup:

12 feet of 300-ohm twinlead twisted together at the end
6-inch wire from the end taped back down the top of the twinlead
16.5-foot radials (I can only get two down and NO rf ground indoors)
1/2 wave of RG-58 feedline cut for 20 meters

Some measurements
14.0 R=113 X=0 2.1 swr
14.1 R=87 X=0 1.7 swr
14.25 R=72 X=34 2.0 swr
14.35 R=71 X=53 2.6 swr

I placed some chokes around the feedline and they didn't seem to make any difference.

With the tail extended rather than taped back down the twin-lead the swr was always a bit higher and the reactance would never get below 60 or so.

So is this "taped tail" beneficial or am I fooling myself somewhere?

Thanks!
WN6F

2051. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 22:45:03 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <PvFwe.1053$j04.207@newssvr21.news.prodigy.com>
Source record: 74116
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> On Wed, 29 Jun 2005 11:07:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>What is the reason a 2:1 SWR can cause such havoc?
>>
>>How can I avoid this catastrophic condition?
>>
>>I feed my dipoles with 450 Ohm ladder line, but the last 20 feet or so is 50
>>Ohm coax, I guess that makes it work ok. I haven't blown up my finals yet.
>>
>>Lions and tigers and bears Oh my...
>
> *****
>
> Actually can happen if you push the finals to where there is
> insufficeint margin to the maximum heat dissapation. Tubes are a bit
> more forgiving. Transistor inadequately heatsinked and overdriven,
> typical CB usage, often have little of no margin for heat dissapation.
>
> If the transmitter has a refelction coefficient of zero and the load
> say .3, then that reflected power from the load is dissapated as heat
> in the output circuits and any final transistors or tubes. Now if the
> radio has a reflection coefficient other than zero that will lessen
> the heat dissapation on the transimiiter. Now you get load and source
> reflections convoluting within the transmission line.
>
> You ought to model a 400 Mhz square wave with source and load
> refelctions coefficients other than zero. It can get ugly
>
>
> james
>

Consider the MRF 140, a 150 Watt 2.0 - 150.0 Mhz N-Channel
linear RF power fet. From the technical data sheet: "100% Tested
For Load Mismatch At All Phase Angles With 30:1 VSWR." You'd have
a tough time damaging this device with a mere 2:1 VSWR.
How do load and source reflections convolute within the
transmission line? That's a new one on me. My old dictionary
defines 'convolute' as "Rolled or folded together with one part
over another; twisted; coiled." The rest of the post is pretty

fanciful, too. A trip to the library would do wonders.
73,
Tom Donaly, KA6RUH

2052. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 22:58:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <LIFwe.1413$0V3.746@newssvr13.news.prodigy.com>
Source record: 74117
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:

> On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Sometimes yes, sometimes no. If the reflected current arrives out
>>of phase with the forward current, then the final dissipation can
>>actually be *reduced* by the mismatch.
>
> *****
>
> Power is power. Phase is not a problem. Take the mafnitude of the
> transmitted power and teh magnitude of the reflected power. The
> results are phaseless. The magnitudes add linearly.
>
> QED
>
> james
>

Cecil was talking about current, not power. You can't add
power the way you can voltage and current. If you could, you
could build a very nice perpetual motion machine just by using the
reflections in a transmission line to add power so that the output
was greater than the input.
73,
Tom Donaly, KA6RUH

2053. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 23:04:41 UTC
From: Steveo <girlyman@girlymen.gays.org>
Message-ID: <exgf33en8km6d5z.290620051604@kirk>
Source record: 74118

i think w8ji can safely be ignored-permanently

"W8JI" <w8ji@contesting.com> wrote in message
news:1120062748.889327.298110@f14g2000cwb.googlegroups.com...
just happened upon an App. note written by Philips
Semiconductors (ECO6907) titled "Design of HF wideband power
transformers" which states for both 4:1 and 9:1 transmission
line transformers that they CAN be wound on a single core if
desired for certain conditions (see sections 6.3, 6.4 and 6.6).
http://www.semiconductors.phil&#65533;ips.com/acrobat_download/appli&#65533;cationnot...

73,
Larry, W0QE >>

Hi Larry,

Don't fall into the trap of swallowing out of context quotes by Trask.
That's an old tired game, and it only results in everyone chasing
their
tails to argue about nothing.

1.) I very specifically excluded primary-secondary type transformers
from the single core current balun statement.

2.) I very specifically was speaking of a dual transmission line 1:1
balun Sevik described using two 1:1 transmission line current baluns
on
one core.

If you can think of a way to build a transmission line balun that way
that is a current balun, please let us all know. No one has been able
to do it so far.

Calling a primary-secondary transformer a "transmission line" does not
count, so no "creative" ways to describe something following Lenz's
laws rather than TEM mode is necessary. Everyone already knows a
conventional primary secondary transformer will work.

73 Tom

2054. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 23:29:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c6bmq78l1uj40@corp.supernews.com>
Source record: 74119
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

The rig has no way of detecting any alleged "reflected power". It can't tell the difference between a feedline with a lot of "reflected power", a feedline with no "reflected power", and a plain resistor. It behaves exactly the same in all cases, provided only that the impedance that each provides to it is the same.

Anyone not convinced of this should put a couple or more dummy loads in series or parallel, make up a few lengths of transmission line of various impedances, and see for himself.

Roy Lewallen, W7EL

james wrote:
> On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Sometimes yes, sometimes no. If the reflected current arrives out
>>of phase with the forward current, then the final dissipation can
>>actually be *reduced* by the mismatch.
>
> *****
>
> Power is power. Phase is not a problem. Take the mafnitude of the
> transmitted power and teh magnitude of the reflected power. The
> results are phaseless. The magnitudes add linearly.
>
> QED
>
> james
>

2055. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 23:53:02 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <qvc6c1p1v84tvd79poa0jhc7211laiqqt9@4ax.com>
Source record: 74120
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 16:37:10 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote in <42c31581$1_2@spool9-west.superfeed.net>:

>Frank Gilliland wrote:
>>>Point is that they are usually calibrated for Z0=50 ohms
>>>and are in error when used in Z0 environments differing
>>>from Z0=50 ohms, e.g. Z0=75 ohms.
>>
>> The point is that the error is insignificant when the directional
>> coupler is much shorter than the wavelength.
>
>Nope, that's not the point at all. It is true that a 50 ohm
>SWR meter designed for HF may not work on 70 cm but the error
>I'm talking about is the calibration error in a 50 ohm SWR meter
>designed for HF and used on HF in, for instance, a Z0 = 450 ohm
>environment instead of its calibrated-for 50 ohm environment....

There lies our misperceptions; I was not referring to using an HF SWR
meter designed for coax and plugging it into 450 ohm ladder line.

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2056. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-29 23:55:33 UTC
From: james <george@washington.edu>
Message-ID: <hjd6c1l78be440mj49inr2l5no0p6ajh50@4ax.com>
Source record: 74121
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 22:58:51 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>james wrote:
>
>> On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
>> wrote:
>>
>>
>>>Sometimes yes, sometimes no. If the reflected current arrives out
>>>of phase with the forward current, then the final dissipation can
>>>actually be *reduced* by the mismatch.
>>
>> *****
>>
>> Power is power. Phase is not a problem. Take the mafnitude of the
>> transmitted power and teh magnitude of the reflected power. The
>> results are phaseless. The magnitudes add linearly.
>>
>> QED
>>
>> james
>>
>
>Cecil was talking about current, not power. You can't add
>power the way you can voltage and current. If you could, you
>could build a very nice perpetual motion machine just by using the
>reflections in a transmission line to add power so that the output
>was greater than the input.
>73,
>Tom Donaly, KA6RUH
******

Tom

The problem is that current is not reflected back from the load, power
is. Thus the you can add magnitudes of power.

james

2057. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:01:47 UTC
From: james <george@washington.edu>
Message-ID: <eod6c1pb1hcq6sp4i6ulsnfbp5u4jeva6b@4ax.com>
Source record: 74122
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 16:29:26 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>The rig has no way of detecting any alleged "reflected power". It can't
>tell the difference between a feedline with a lot of "reflected power",
>a feedline with no "reflected power", and a plain resistor. It behaves
>exactly the same in all cases, provided only that the impedance that
>each provides to it is the same.
>
*****

Agreed that a rig cannot detect the difference between forward and
reflected power. If the reflection coeffiecient of the source is zero
then final stage of a transmiter will look purely resistive to any
power reflected by the load. Thereby that refelcted power is
dissapated as heat. Other reflection coefficients at the source will
yield lesser amounts of reflected power from the load as heat.

james

>Anyone not convinced of this should put a couple or more dummy loads in
>series or parallel, make up a few lengths of transmission line of
>various impedances, and see for himself.
>
>Roy Lewallen, W7EL
>
>james wrote:
>> On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
>> wrote:
>>
>>
>>>Sometimes yes, sometimes no. If the reflected current arrives out
>>>of phase with the forward current, then the final dissipation can
>>>actually be *reduced* by the mismatch.
>>
>> *****
>>
>> Power is power. Phase is not a problem. Take the mafnitude of the
>> transmitted power and teh magnitude of the reflected power. The
>> results are phaseless. The magnitudes add linearly.
>>
>> QED
>>
>> james

>>

2058. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:10:53 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <13d6c1hcv8c00lq5eis4ssbi3omhn69ikj@4ax.com>
Source record: 74123
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On 29 Jun 2005 14:53:29 -0700, "K7ITM" <k7itm@aol.com> wrote in
<1120082009.184166.165960@f14g2000cwb.googlegroups.com>:

>Frank Gilliland wrote, among other things, "The point is that the error
>is insignificant when the directional coupler is much shorter than the
>wavelength."
>
>Certainly "directional couplers" for HF may be built at essentially
>zero length, and ideally would have exactly zero length, monitoring the
>current and voltage at a single point on a line. Then SWR or
>reflection coefficient magnitude or even complex reflection coefficient
>may be calculated under the assumption we know the desired reference
>impedance. But if the equipment combines the voltage and current
>samples in the wrong ratio, you will get the WRONG answer. Even if the
>coupler looks like a perfect 50 ohms impedance section of transmission
>line (with some attenuation), the error _in_measurement_output_ can be
>significant indeed. Just because the coupler looks like a 50 ohm line
>to the line it's hooked to doesn't mean it will read zero reflection
>when IT's presented with a 50 ohm load.

SWR is a ratio, not an absolute value. It doesn't matter if the meter
reads a forward power that's off by 1 or 1000 watts just as long as
the reflected power is in error by the same percent, which will be the
case unless you are using two different meters for forward and
reflected power. Calibrated or not, SWR is the same.

>And by the way, not everyone who measures and cares very much about SWR
>(or reflection coefficient) cares a whit about field strength. Not all
>loads are antennas.

That point might be relevant if this thread were cross-posted to
alt.heaters.induction or rec.dummy-loads.

>Indeed, as Reg says, we might do better in amateur applications to
>consider the SWR meter as an indicator of the degree to which we're
>presenting a transmitter with the desired load.

I agree 100%.

> That's really what
>we're using it for, most of the time.

Unfortunately, it's that "most of the time" part that starts threads
like this. Some radio operators mistakenly think SWR is a measure of
antenna efficiency.

> It may ALSO be interesting to
>know the field strength, but please be aware that a transmitter's
>distortion products may be significantly higher if it's presented the
>wrong load impedance, even though the power output may be increased.
>Field strength alone is not acceptable to me as a means to adjust an
>antenna load to a transmitter, or as a way to adjust the operating
>point of the transmitter.

True story. It's certainly better to use a tunable FSM if one is
available. And such meters are readily available -- any receiver with
a good S-meter.

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2059. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:12:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <PNGwe.35175$J12.11099@newssvr14.news.prodigy.com>
Source record: 74124
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> On Wed, 29 Jun 2005 22:58:51 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>james wrote:
>>
>>
>>>On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
>>>wrote:
>>>
>>>
>>>
>>>>Sometimes yes, sometimes no. If the reflected current arrives out
>>>>of phase with the forward current, then the final dissipation can
>>>>actually be *reduced* by the mismatch.
>>>
>>>******
>>>
>>>Power is power. Phase is not a problem. Take the mafnitude of the
>>>transmitted power and teh magnitude of the reflected power. The
>>>results are phaseless. The magnitudes add linearly.
>>>
>>>QED
>>>
>>>james
>>>
>>
>>Cecil was talking about current, not power. You can't add
>>power the way you can voltage and current. If you could, you
>>could build a very nice perpetual motion machine just by using the
>>reflections in a transmission line to add power so that the output
>>was greater than the input.
>>73,
>>Tom Donaly, KA6RUH
>
> ******
>
> Tom
>
> The problem is that current is not reflected back from the load, power
> is. Thus the you can add magnitudes of power.
>

>
> james

Nope. You need a course in electromagnetics. Who put all these
ideas into your head, anyway?
73,
Tom

2060. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:19:22 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <eUGwe.35176$J12.3979@newssvr14.news.prodigy.com>
Source record: 74025
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:

> On Wed, 29 Jun 2005 16:29:26 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>The rig has no way of detecting any alleged "reflected power". It can't
>>tell the difference between a feedline with a lot of "reflected power",
>>a feedline with no "reflected power", and a plain resistor. It behaves
>>exactly the same in all cases, provided only that the impedance that
>>each provides to it is the same.
>>
>
> *****
>
> Agreed that a rig cannot detect the difference between forward and
> reflected power. If the reflection coeffiecient of the source is zero
> then final stage of a transmiter will look purely resistive to any
> power reflected by the load. Thereby that refelcted power is
> dissapated as heat. Other reflection coefficients at the source will
> yield lesser amounts of reflected power from the load as heat.
>
> james
>
>
>>Anyone not convinced of this should put a couple or more dummy loads in
>>series or parallel, make up a few lengths of transmission line of
>>various impedances, and see for himself.
>>
>>Roy Lewallen, W7EL
>>
>>james wrote:
>>
>>>On Wed, 29 Jun 2005 16:42:49 -0500, Cecil Moore <w5dxp@hotmail.com>
>>>wrote:
>>>
>>>
>>>
>>>>Sometimes yes, sometimes no. If the reflected current arrives out
>>>>of phase with the forward current, then the final dissipation can
>>>>actually be *reduced* by the mismatch.
>>>
>>>******

>>>
>>>Power is power. Phase is not a problem. Take the mafnitude of the
>>>transmitted power and teh magnitude of the reflected power. The
>>>results are phaseless. The magnitudes add linearly.
>>>
>>>QED
>>>
>>>james
>>>
>
>

You need to read _Reflections II, Transmission Lines and Antennas_
by M. Walter Maxwell, W2DU. Even better, get a book on electromagnetics.
You might be able to puzzle some of it out although much of
the math might be too esoteric for you.
73,
Tom Donaly, KA6RUH

2061. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:22:48 UTC
From: james <george@washington.edu>
Message-ID: <b6e6c19jql9s3aloga2oqa0qs2l5la80n3@4ax.com>
Source record: 74026
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 22:45:03 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>james wrote:
>> On Wed, 29 Jun 2005 11:07:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>>
>>>>What is the reason a 2:1 SWR can cause such havoc?
>>>
>>>>How can I avoid this catastrophic condition?
>>>
>>>>I feed my dipoles with 450 Ohm ladder line, but the last 20 feet or so is 50
>>>>Ohm coax, I guess that makes it work ok. I haven't blown up my finals yet.
>>>
>>>>Lions and tigers and bears Oh my...
>>
>> *****
>>
>> Actually can happen if you push the finals to where there is
>> insufficeint margin to the maximum heat dissapation. Tubes are a bit
>> more forgiving. Transistor inadequately heatsinked and overdriven,
>> typical CB usage, often have little of no margin for heat dissapation.
>>
>> If the transmitter has a refelction coefficient of zero and the load
>> say .3, then that reflected power from the load is dissapated as heat
>> in the output circuits and any final transistors or tubes. Now if the
>> radio has a reflection coefficient other than zero that will lessen
>> the heat dissapation on the transimiiter. Now you get load and source
>> reflections convoluting within the transmission line.
>>
>> You ought to model a 400 Mhz square wave with source and load
>> refelctions coefficients other than zero. It can get ugly
>>
>>
>> james
>>
>
>
>Consider the MRF 140, a 150 Watt 2.0 - 150.0 Mhz N-Channel
>linear RF power fet. From the technical data sheet: "100% Tested
>For Load Mismatch At All Phase Angles With 30:1 VSWR." You'd have
>a tough time damaging this device with a mere 2:1 VSWR.

>How do load and source reflections convolute within the
>transmission line? That's a new one on me. My old dictionary
>defines 'convolute' as "Rolled or folded together with one part
>over another; twisted; coiled." The rest of the post is pretty
>fanciful, too. A trip to the library would do wonders.
>73,
>Tom Donaly, KA6RUH
******

In electrical engineering it is the instantaneous power density of two signals passing at the same spot from two directions. That is called Convolution. It also is a nice mathematical means of modeling SWR at any point on a transmisison line at a particular time.

Well if you knew CBers, they are not satidied getting 150 watts from a transistor rated for 150 watts. But in my first paragraph I thought I made it clear but evidently I did not. I guess I must strive to better explain myslef.

james

2062. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:25:23 UTC
From: james <george@washington.edu>
Message-ID: <vdf6c11sasep2ekvo8dk6gjc5364phsgll@4ax.com>
Source record: 74027
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 00:12:31 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Nope. You need a course in electromagnetics. Who put all these
>ideas into your head, anyway?
>73,
>Tom
Electromagnetics

james

2063. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:25:47 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <sle6c1l7ab62hogur4sf69r316jlobur6m@4ax.com>
Source record: 74028
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 22:45:03 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote in
<PvFwe.1053$j04.207@newssvr21.news.prodigy.com>:

<snip>
>..... A trip to the library would do wonders.
>73,
>Tom Donaly, KA6RUH

I keep trying to stress that fact, but some people persist under the
delusion that they can learn everything they need from the internet.

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2064. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:31:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e7f6c1t4tmhgb0a100bd73mehm7gt0c7e1@4ax.com>
Source record: 74029
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 00:22:48 GMT, james <george@washington.edu> wrote:

>In electrical engineering it is the instantaneous power density of two
>signals passing at the same spot from two directions. That is called
>Convolution.

Hi James,

No, it is called Superposition, and that is done only with voltage or current. What you are describing may be associated with the Fourier convolution of power series - an entirely different field (and not even additive).

73's
Richard Clark, KB7QHC

2065. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:37:03 UTC
From: james <george@washington.edu>
Message-ID: <kkf6c1lg5e8jfjb539l8t8oass64lcmhfm@4ax.com>
Source record: 74030
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 00:19:22 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>You need to read _Reflections II, Transmission Lines and Antennas_
>by M. Walter Maxwell, W2DU. Even better, get a book on electromagnetics.
>You might be able to puzzle some of it out although much of
>the math might be too esoteric for you.
>73,
>Tom Donaly, KA6RUH
*****

Whats wrong with stating that power is reflected by the load? Isn't
power delivered to the load from the source? Elementary electronics
states that power is voltage time current.

Currents in a transmission line are induced currents. They are induced
from the E and H fields of the TEM wave. I hope that you don't think
that current races up and down the coax millions a times per second?

james

2066. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:43:13 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <snf6c1d6dpqfjun11osmjnj41vfcs5uadc@4ax.com>
Source record: 74031
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 00:22:48 GMT, james <george@washington.edu> wrote
in <b6e6c19jql9s3aloga2oqa0qs2l5la80n3@4ax.com>:

>On Wed, 29 Jun 2005 22:45:03 GMT, "Tom Donaly"
><dtdonaly@sbcglobal.net> wrote:
>
>>james wrote:
>>> On Wed, 29 Jun 2005 11:07:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>>> wrote:
>>>
>>>
>>>>What is the reason a 2:1 SWR can cause such havoc?
>>>>
>>>>How can I avoid this catastrophic condition?
>>>>
>>>>I feed my dipoles with 450 Ohm ladder line, but the last 20 feet or so is 50
>>>>Ohm coax, I guess that makes it work ok. I haven't blown up my finals yet.
>>>>
>>>>Lions and tigers and bears Oh my...
>>>
>>> *****
>>>
>>> Actually can happen if you push the finals to where there is
>>> insufficeint margin to the maximum heat dissapation. Tubes are a bit
>>> more forgiving. Transistor inadequately heatsinked and overdriven,
>>> typical CB usage, often have little of no margin for heat dissapation.
>>>
>>> If the transmitter has a refelction coefficient of zero and the load
>>> say .3, then that reflected power from the load is dissapated as heat
>>> in the output circuits and any final transistors or tubes. Now if the
>>> radio has a reflection coefficient other than zero that will lessen
>>> the heat dissapation on the transimiiter. Now you get load and source
>>> reflections convoluting within the transmission line.
>>>
>>> You ought to model a 400 Mhz square wave with source and load
>>> refelctions coefficients other than zero. It can get ugly
>>>
>>>
>>> james
>>>
>>
>>
>>Consider the MRF 140, a 150 Watt 2.0 - 150.0 Mhz N-Channel

>>linear RF power fet. From the technical data sheet: "100% Tested
>>For Load Mismatch At All Phase Angles With 30:1 VSWR." You'd have
>>a tough time damaging this device with a mere 2:1 VSWR.
>>How do load and source reflections convolute within the
>>transmission line? That's a new one on me. My old dictionary
>>defines 'convolute' as "Rolled or folded together with one part
>>over another; twisted; coiled." The rest of the post is pretty
>>fanciful, too. A trip to the library would do wonders.
>>73,
>>Tom Donaly, KA6RUH
>******
>
>In electrical engineering it is the instantaneous power density of two
>signals passing at the same spot from two directions. That is called
>Convolution.

I'm an EE and I've NEVER heard the term used in reference to
electronics, let alone used to describe standing waves.

> It also is a nice mathematical means of modeling SWR at
>any point on a transmisison line at a particular time.

I know how to model standing waves, but how do you model a standing
wave ratio?

>Well if you knew CBers, they are not satidied getting 150 watts from
>a transistor rated for 150 watts. But in my first paragraph I thought
>I made it clear but evidently I did not. I guess I must strive to
>better explain myslef.

Agreed.

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2067. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 00:45:34 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <14g6c1teiq0lsngvkc856spqjuhk6mvaea@4ax.com>
Source record: 74032
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 00:25:23 GMT, james <george@washington.edu> wrote
in <vdf6c11sasep2ekvo8dk6gjc5364phsgll@4ax.com>:

>On Thu, 30 Jun 2005 00:12:31 GMT, "Tom Donaly"
><dtdonaly@sbcglobal.net> wrote:
>
>>Nope. You need a course in electromagnetics. Who put all these
>>ideas into your head, anyway?
>>73,
>>Tom
>Electromagnetics

Did "Electromagnetics" teach you that power = voltage * current?

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2068. Radials for a Vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:02:02 UTC
From: Gary
Message-ID: <qmg6c1t30ebsrastsm06rcqhnf7m131525@4ax.com>
Source record: 74034

I'm thinking of buying a used Hustler 6BTV vertical (80 thru 10 coverage) and was wondering about how many radials I'd need and how long they should be ? If I do get it, I'd be ground mounting the vertical and planting the radials about 1 - 2 inches deep in soil that's mainly clay.

Thanks in advance.

73 Gary

2069. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:02:06 UTC
From: james <george@washington.edu>
Message-ID: <u9h6c1dihs1as0jaamsqbd630n5bl9fbs7@4ax.com>
Source record: 74033
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 17:31:36 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 30 Jun 2005 00:22:48 GMT, james <george@washington.edu> wrote:
>
>>In electrical engineering it is the instantaneous power density of two
>>signals passing at the same spot from two directions. That is called
>>Convolution.
>
>Hi James,
>
>No, it is called Superposition, and that is done only with voltage or
>current. What you are describing may be associated with the Fourier
>convolution of power series - an entirely different field (and not
>even additive).
>
>73's
>Richard Clark, KB7QHC
*****

Okay maybe I am not expressing my self correctly and right now I don't
realy have the time or patience to look back through my old text
books. It has been several years since I have done a lot of RF work
and some things are not as fresh in my mind. It does seem like the
less you use the more you forget or have trouble explaining what you
think.

Most of my work lately has been away from RF.

james

2070. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:15:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c6hteod3em9f9@corp.supernews.com>
Source record: 74036
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
>
> Agreed that a rig cannot detect the difference between forward and
> reflected power. If the reflection coeffiecient of the source is zero
> then final stage of a transmiter will look purely resistive to any
> power reflected by the load. Thereby that refelcted power is
> dissapated as heat. Other reflection coefficients at the source will
> yield lesser amounts of reflected power from the load as heat.
>
> james

I've posted many, many times on this topic and have shown a number of cases where the load is perfectly matched but the power dissipated in the source resistor is less than or greater than the "reverse power", clearly demonstrating that this concept is incorrect. There are several examples at Food for thought.txt available at http://eznec.com/misc/food_for_thought/.

Because I've posted so much on the topic I won't do it all again. But I know at least one person on this newsgroup would be glad to have an opportunity to express his views once again. I'll leave this discussion to those who want to revisit it; I don't. But I do want to caution readers that this view of "reflected power" is demonstrably incorrect.

Roy Lewallen, W7EL

2071. Re: Radials for a Vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:27:54 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <ocGdncbtR_ef1l7fRVn-vA@comcast.com>
Source record: 74037

"Gary" <grynwbry@@@@Yahoo.com> wrote in message
news:qmg6c1t30ebsrastsm06rcqhnf7m131525@4ax.com...
> I'm thinking of buying a used Hustler 6BTV vertical (80 thru 10
> coverage) and was wondering about how many radials I'd need and how
> long they should be ? If I do get it, I'd be ground mounting the
> vertical and planting the radials about 1 - 2 inches deep in soil
> that's mainly clay.
>
> Thanks in advance.
>
> 73 Gary
>
You might want to think about hardware cloth - - half inch screen dipped in zinc - - virtually one continuous sheet, solderable and resistant to weather and moisture. It comes in a 36" width, and I bought about 100 ft of it for my ground-mounted 6-band Butternut. The results have been excellent. People use cars and trailers for their counterpoise - - but this makes a much bigger one, with a lot more capacitance to ground. You can then sod over it or put in plastic sheeting and pebbles - - whatever you like. The only thing you need to settle is to get your sprinklers arranged ahead of time so you don't have to trench through under the hardware cloth.

73, Chuck W6PKP

2072. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:30:39 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <3XHwe.35191$J12.4357@newssvr14.news.prodigy.com>
Source record: 74038
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Richard Clark wrote:
> On Thu, 30 Jun 2005 00:22:48 GMT, james <george@washington.edu> wrote:
>
>
>>In electrical engineering it is the instantaneous power density of two
>>signals passing at the same spot from two directions. That is called
>>Convolution.
>
>
> Hi James,
>
> No, it is called Superposition, and that is done only with voltage or
> current. What you are describing may be associated with the Fourier
> convolution of power series - an entirely different field (and not
> even additive).
>
> 73's
> Richard Clark, KB7QHC

Convolution is a mathematical stunt you can perform with
two functions: f(x)* g(x) = (integral from 0 to x) f(t)g(x-t) dt.
At least that's how it's explained in Schaum's Outline book
Differential Equations. It's pretty tough to see how it relates
to power in a transmission line. Maybe someone has a use for it
there.
73,
Tom Donaly, KA6RUH

2073. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:50:54 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <1dIwe.5942$ho.5388@bignews6.bellsouth.net>
Source record: 74039

Remember, the high gain antenna will have a narrow beam,
The phone companies have used passive repeaters with good success.

"Mark" <Mark@> wrote in message
news:0op0c1d8g1l9d4nku27v1nt8oroal2i1u1@4ax.com...
> On Sat, 25 Jun 2005 17:40:50 -0400, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
> >This may well be an application for a passive repeater.
> >2 yagis back to back
> >one aimed at the nearest tower
> >the other aimed at your house.
> >mount it high
>
> That sounds like a good idea, should I mount the antenna's at a 90o
> angle relative to each other, with the receiving antenna mounted to
> look in the vertical plane (I know where the base station is). And the
> transmitting antenna to give as much horizontal plane coverage as
> possible, angled down to the areas I wish to receive telephone
> coverage? Can I expect good results?

2074. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 01:55:40 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <47k6c1dhoomdmeqr85rviucapdebb9ie6o@4ax.com>
Source record: 74040
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 01:02:06 GMT, james <george@washington.edu> wrote:

>
>Most of my work lately has been away from RF.

Uh huh. And do you drive a Kenworth or a Volvo?

2075. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 02:06:14 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <8gk6c1pt7i62gnv22g9rdkh5e7tsq9l611@4ax.com>
Source record: 74041
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 14:07:26 -0700, Frank Gilliland
<wï¿½renut@NOSPAMï¿½cehouse.net> wrote:

>On Tue, 28 Jun 2005 23:17:15 -0500, Cecil Moore <w5dxp@hotmail.com>
>wrote in <42c221c5$1_2@spool9-west.superfeed.net>:
>
>>Frank Gilliland wrote:
>>> Impedance matching of an SWR meter is generally unimportant since most
>>> SWR meters used for HF have a directional coupler that is much shorter
>>> than the operating wavelength.
>>
>>Point is that they are usually calibrated for Z0=50 ohms
>>and are in error when used in Z0 environments differing
>>from Z0=50 ohms, e.g. Z0=75 ohms.
>
>
>The point is that the error is insignificant when the directional
>coupler is much shorter than the wavelength.

In a word, baloney. The error is independent of length. A zero length
bridge calibrated at 75 ohm is in error when measuring in a 50 ohm
system. Period.

>The error is even more
>insignificant when there are a host of variables and confounds between
>the SWR meter and the transmitted field that can (and frequently do)
>affect the objective -- field strength.

Often, field strength is of zero importance. What do you do when the
device under test isn't supposed to radiate? The simplest example of
this would be a CATV system, yet VSWR is *extremely* important in
cascaded networks.

>It's much simpler (and just
>plain logical) to measure the field strength directly instead of
>measuring an abstract value halfway towards the objective and relying
>on nothing more than speculation that the rest is working according as
>expected.

More baloney and it isn't even sliced.

2076. 1$$$$$$ MONEY FAST & SIMPLE @@@@@@@

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 02:25:27 UTC
From: joew@itctel.com
Message-ID: <1120098327.923899.213120@o13g2000cwo.googlegroups.com>
Source record: 74042

An easy way to earn and get rich quick
Posted By: joed
Date: thursday, 27 March 2005, at 5:20 p.m.
This is not a scam, I have done it myself!
Can you really earn so easily?
I thought it was impossible. Just read this. I don't even have to convince you that this is
not a scam, because it makes logical sense how you can earn money through paypal.
A little while back, I was browsing through a newsgroup, just like you are now and came
across an article similar to this that said you could make thousands dollars within weeks
with only an initial investment of $6.00! So I thought, "Yeah, right, this must be a scam",
but like most of us, I was curious, so I kept reading :
OPRAH WINFREY and an article published in the Wall Street Journal, here is some of it!!
Everyone has heard about "PayPal" (if you haven't you will soon) and, when I came
across this concept I knew it would work because, as a member of PayPal, I had already
experienced their efficiency and excellent standing. PayPal is the simplest method of making
and receiving payments online anyone has ever seen! Anyone with an email address can join, for FREE! Please read further before you go there...
You can complete this whole process in less than one hour and you will never forget the day
you decided to do so!!! Oh! Did I say FAST? By fast I mean 'the speed of the Internet-type
fast.' Everything is done on the Internet by E-mail. And, if you abide by the rules, it is
NOT considered SPAM, so it's perfectly legal!
Anyway, it said that you send $1.00 through paypal to each of the emails stated in the
article. You then place your own email address in the bottom of the list at No.6, and post
the article in at least 200 newsgroups. (There are thousands) No catch, that was it. So
after thinking it over, and talking to few people first, I thought about trying it. I
figured, what have I got to lose except $6.00, right? Like most of us I was a little

skeptical and a little worried about the legal aspects of it. I found
out that it follows
the same regulations as the mailed chain letters, which according to
the U.S. Post Office
(1-800-725-2161) is indeed legal! Then I invested the measly $6.00.
Well GUESS WHAT!!?.
Within 7 days, I started getting money in my PayPal account! I was
shocked and excited! I
figured it would end soon, but the money just kept coming in. In my
first week, I made about
$25.00.
By the end second week I had made a total over $1,100.00! In the third
week I had over
$9,000.00 and it's still growing. This is now my fourth week and I have
made a total of just
over $22,000.00 and it's still coming in rapidly. Its : Certainly worth
$6.00., I have spent
more than that on the lottery!! : Let me tell you how this works and
most importantly, why
it works? Also, make sure you print a copy of this article NOW, so you
can get the
information off of it as you need it.
REQUIREMENTS: You must have a verified PayPal account. If you do not
have an account you can
go to www.paypal.com and follow the instructions to set up a free
account. In order to place
the initial $6 into your account, you will have to verify your bank
account with PayPal
(which may take a few days). Paypal is 100% secure and is used my
millions of people world
wide.
STEP 1: Send, through PayPal, $1.00 to each email on the below list.
Make the subject of the
payment "Email List" and in the comments, write "PLEASE PUT ME ON YOUR
EMAIL LIST." What you
are doing is creating a service by this and best of all you are not
giving your address to
anyone you do not know.. THIS IS ABSOLUTELY LEGAL!
The email list:
1)arish_n...@rediffmail.com
2)sudip_d...@yahoo.com
3)hoito_tomari_jonno2...@yahoo.com
4)bigmoneygri...@yahoo.com
5)bos...@yahoo.com
6)joed...@itctel.com
STEP 2: Now take the 1st email off the list that you see above, move
the other addresses up
(6 becomes 5, 5 becomes 4, etc?.) and add YOUR email address (the one
used on the paypal
account) as number 6 on the list.

STEP 3: Change anything you need to, but try to keep this article as close to original as
possible. Now, post your amended article to at least 200 newsgroups and message boards. (I
think there are close to 32,000 groups) All you need is 200, but remember, the more you
post, the more money you make - as well as everyone else on the list!
---- DIRECTIONS----
HOW TO POST TO NEWSGROUPS, MESSAGE BOARD----------
Step 1) You do not need to re-type this entire letter to do your own posting. Simply put
your cursor at the beginning of this letter and drag your cursor to the bottom of this
document, and select 'copy' from the edit menu. This will copy the entire letter into the
computer memory.
Step 2) Open a blank 'notepad' file and place your cursor at the top of the blank page. From
the 'edit' menu select 'paste'. This will paste a copy of the letter

$$$$$$ MONEY FAST & SIMPLE @@@@@@@
into notepad so that
you can add your name to the list.
Step 3) save your new notepad file as a .txt file. If you want to do your postings in
different sittings, you'll always have this file to go back to.
Step 4) Use Netscape or Internet explorer and try searching for various newsgroups (on-line
forums, message boards, chat sites, discussions.) Just example you log on any search engine
like, yahoo.com,google.com, altavista.com,excite.com then you search with this subject
millionaire message board? or money making message board? or employment message board? or
money making discussions? or money making forum? or business message board? etc. You will
find thousand & thousand message board. Click one by one then you will find the option post
a new message.
Step 5) Visit these message boards and post this article as a new message by highlighting
the text of this letter and selecting paste from the edit menu. Fill in the Subject, this
will be the header that everyone sees as they scroll through the list of postings in a
particular group, click the post message button.
You're done with your first one!.
Please Be Honest and it will truely work for you: Congrats!

Reply

2077. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 02:42:53 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <3bm6c11l19tukieu0c96mvrn0hk9l64sqr@4ax.com>
Source record: 74043
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 19:06:14 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote in <8gk6c1pt7i62gnv22g9rdkh5e7tsq9l611@4ax.com>:

>On Wed, 29 Jun 2005 14:07:26 -0700, Frank Gilliland
><wï¿½renut@NOSPAMï¿½cehouse.net> wrote:
>
>>On Tue, 28 Jun 2005 23:17:15 -0500, Cecil Moore <w5dxp@hotmail.com>
>>wrote in <42c221c5$1_2@spool9-west.superfeed.net>:
>>
>>>Frank Gilliland wrote:
>>>> Impedance matching of an SWR meter is generally unimportant since most
>>>> SWR meters used for HF have a directional coupler that is much shorter
>>>> than the operating wavelength.
>>>
>>>Point is that they are usually calibrated for Z0=50 ohms
>>>and are in error when used in Z0 environments differing
>>>from Z0=50 ohms, e.g. Z0=75 ohms.
>>
>>
>>The point is that the error is insignificant when the directional
>>coupler is much shorter than the wavelength.
>
>In a word, baloney. The error is independent of length. A zero length
>bridge calibrated at 75 ohm is in error when measuring in a 50 ohm
>system. Period.

Prove it.

>>The error is even more
>>insignificant when there are a host of variables and confounds between
>>the SWR meter and the transmitted field that can (and frequently do)
>>affect the objective -- field strength.
>
>Often, field strength is of zero importance. What do you do when the
>device under test isn't supposed to radiate?

That device probably wouldn't make a very good radio, would it?

> The simplest example of
>this would be a CATV system, yet VSWR is *extremely* important in
>cascaded networks.

Thank you for making my point.

>>It's much simpler (and just
>>plain logical) to measure the field strength directly instead of
>>measuring an abstract value halfway towards the objective and relying
>>on nothing more than speculation that the rest is working according as
>>expected.
>
>More baloney and it isn't even sliced.

The word is "blarney". And although the syntax of my statement was
somewhat 'convoluted', the logic is sound -- you can dyno your engine
all day, but the only way to know for sure how fast you can get down
the quarter mile is to run the race.

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2078. FA: 1000 feet RG-223/U coax, mil spec. made in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:08:51 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <3mJwe.6284$Eo.4625@fed1read04>
Source record: 74044
Cross-posted to: alt.ham-radio,alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.swap

Please see:
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=36338&item=7527498668&rd=1&ssPageName=WDVW

web: www.aaarfproducts.com
email: sales@aaarfproducts.com
call: 949 481 3154
fax: 949 388 5448
or mail: AAA RF Products, 949 Calle Amanecer, San Clemente, CA 92673 USA

2079. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:10:48 UTC
From: Ray LewdAlien <w7al@esnec.com>
Message-ID: <wwireaaeprc36z4.290620052010@kirk>
Source record: 74045
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

worse than wtf?

is wgaf? or Who Gives A F***?

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11c3l6jmhjctl60@corp.supernews.com...
>I don't see the original posting here on rec.radio.amateur, but there
>are a few misconceptions in the followups which should be addressed.
>
> Lancer wrote:
>> On Tue, 28 Jun 2005 19:13:35 GMT, james <george@washington.edu>
>> wrote:
>>
>>
>>>On Tue, 28 Jun 2005 18:31:58 GMT, Lancer <lancer@rock..com> wrote:
>>>
>>>
>>>>To have the measured SWR change with coax length, means you have
>>>>current flowing on the outside of the coax. Your coax then becomes
>>>>part of the antenna, so changing its length is changing the
>>>>antenna
>>>>length. This would change the feedpoint impedance and the SWR.
>
> That's correct, except that coax loss will also cause the SWR to
> change with coax length. Loss will cause the SWR at the antenna
> (load) to always be greater than at the transmitter (source).
>
>>>>
>>>>Unless the line is carrying common mode currents that affect
>>>>antenna impedance, changing coax length won't change the SWR, even
>>>>if the
>>>>antenna isn't matched.
>
> Again correct except for overlooking the effect of coax loss.
>
> But there's a real problem in communicating this. If you hook a 50
> ohm SWR meter to the input of a 75 ohm, 300 ohm, or line of any
> impedance other than 50 ohms, the meter reading won't be the SWR on
> the transmission line. That can mislead people into thinking that
> the SWR is changing with line length when it actually isn't.
>
>>>
>>>>>>>>>
>>>

>>>BS
>>>Common mode currents on the shield of coaxial cables do not alter
>>>the
>>>feed impedance. Repeat ofter me. Common mode currents on the shield
>>>of
>>>coaxial cables do not alter the feed impedance.
>
> Why repeat it if it isn't true? The explanation given by Lancer was
> correct. If you change the length of the antenna, the feedpoint
> impedance will change. When you have common mode current flowing on
> the feedline, the feedline is part of the antenna; changing its
> length is changing the antenna's length.
>
>>>
>>>The feed impedance of an antenna is solely determined by its
>>>physical
>>>length and any load impedances within the antenna structure. Load
>>>impedances can be stray capacitance with ground via metal objects
>>>within the near field of the antenna or even a building.
>
> You have to realize that a radiating feedline (one carrying common
> mode current) IS part of the antenna structure.
>
>>>
>>>The "Magic" of an electrical halfwave transmission line is at a
>>>precise frequency, the reflection of the load to the transmistter
>>>is
>>>equal to the characteristic impedance of the transmission line
>>>irregardless of what impedance it is terminated with.
>
> This is true only of a lossless line. If the load impedance isn't
> far from the line's characteristic impedance (i.e., the line's SWR
> is low), a small amount of loss won't make much difference. However,
> if the line SWR is high, even a small amount of loss can make a
> major change in the impedance seen at the line's input. The effect
> is to skew the impedance toward the line's Z0.
>
>> Other lengths
>>>have the load impedance reflected back and transformed by the
>>>length
>>>of the coax. The coax then acts as a transformer. It will either
>>>step
>>>up or step down the impeadnace of the load depending on the load
>>>itself and the electrical length of the coax.
>
> It's a little more complicated than that. The line doesn't simply
> multiply or divide the impedance by a constant, like a
> transformer --
> except in the special case of a quarter electrical wavelength line
> or odd multiples thereof. In other cases, the line does transform

> the impedance, but in a complex way in which the resistance and
> reactance are transformed by different factors. And reactance can be
> present at a line's input even when the load is purely resistive. A
> Smith chart is a good visual aid in seeing what happens. Assuming a
> lossless line, the impedance traverses a circle around the origin.
> The radius of the circle corresponds to the line's SWR. With the
> chart, you can see all the combinations of R and X which a given
> line can produce with a given load by changing its length.
> Incidentally, loss causes the impedance to spiral inward toward the
> origin as the line gets longer, showing how loss skews the input
> impedance toward Z0.
>
>>>
>>>All a tuner does is electrically lengthen or shoten the coax by
>>>introducing a lumped LC constant that helps present a resistive
>>>load
>>>to the transmitter. The SWR at the feedline does not change. By
>>>placing various different lengths of coax inline, you do the same
>>>thing a tuner does, add a lumped LC constant.
>
> As can be seen from the Smith chart, you can produce only particular
> combinations of R and X by changing the length of a line which has a
> given load impedance. Unless you're unusually lucky or have planned
> things carefully, none of these combinations will result in 50 + j0
> ohms, the usual goal, at the line's input. In contrast, a tuner is
> able to adjust both R and X to produce, if designed right for the
> application, 50 + j0 for a wide range of load impedances.
>
> It requires at least two adjustable components to achieve an
> impedance match from an arbitrary load impedance, because there are
> two separate quantities, R and X or impedance magnitude and phase,
> which have to be adjusted. Changing the line length is only one
> adjustment, so it can't be guaranteed to provide a match. If you
> could also change the line's Z0, for example, or the length of a
> stub, you'd have two adjustments and you could guarantee a match
> providing you have enough adjustment range.
>
>>>
>>>james
>>
>>
>> So thats all my tuner does, lengthen or shorten the coax?
>>
>> Are you sure about that?
>
> Rest assured, that's not all it does.
>
> Roy Lewallen, W7EL
>

2080. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:19:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c365a4$1_1@spool9-west.superfeed.net>
Source record: 74046
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> Power is power. Phase is not a problem. Take the mafnitude of the
> transmitted power and teh magnitude of the reflected power. The
> results are phaseless. The magnitudes add linearly.

Strangely enough, the results are not phaseless. The equation
for reflected power at an impedance discontinuity is:

Pref = P3 + P4 - SQRT(P3*P4)cos(theta)

Where theta is the phase angle between V3 and V4, the
associated reflected interferring voltages.

Reference "Optics", by Hecht, Chapter 9 - Interference

The last term in the equation above is known as the "interference"
term. Unless you take the interference term into account, you
don't have a ghost of a chance of ascertaining where the power
goes.
--
73, Cecil http://www.qsl.net/w5dxp

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2081. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:22:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c36680$1_2@spool9-west.superfeed.net>
Source record: 74047
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

K7ITM wrote:
> Field strength alone is not acceptable to me as a means to adjust an
> antenna load to a transmitter, ...

Doesn't being located in the near field introduce
a measurement error?
--
73, Cecil http://www.qsl.net/w5dxp

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2082. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:32:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c368b0$1_1@spool9-west.superfeed.net>
Source record: 74048
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Tom Donaly wrote:
> Cecil was talking about current, not power. You can't add
> power the way you can voltage and current.

That's absolutely correct. When one adds powers, one must
include the interference term which takes care of conservation
of energy. The equation is:

Ptot = P1 + P2 + SQRT(P1*P2)cos(theta)

where theta is the phase angle between V1 (associated with
P1) and V2 (associated with P2). The last term is labeled
the "interference term" and is absolutely necessary when
adding powers. If the interference term is positive, the
interference is constructive. If the interference term is
negative, the interference is destructive.

The best reference on interference and the adding of powers
that I have found is Chapter 9 in "Optics", by Hecht.
--
73, Cecil http://www.qsl.net/w5dxp

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2083. Re: Radials for a Vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:37:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <gOJwe.1225$4m3.585@newssvr19.news.prodigy.com>
Source record: 74050

Gary,
The general 'generic' answer is as many as you can stand to
put in, and as long as you can make them. Usually, the length is a 1/4
wave (or sort of close) for the lowest frequency of use. Don't have
that much room? Then make them as long as possible. The more you put
down the 'better' it'll be. That's where the 'as many as you can stand'
comes in. At some point you'll be ready to quit, so quit...
'Doc

PS - The 'text book' answer? Not really, but probably the average one.

2084. Re: Top-loaded folded monopole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:38:00 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120102680.343085.26720@g44g2000cwa.googlegroups.com>
Source record: 74049

Dipole means that you have the center of the coax soldered normally to the wire/conduit/tubing that is upward and then the braid is soldered to the radial(s) which are either parallel with the ground, angled toward the ground, or even straight down as if you put a "T" out there and put conduit in (looking at the T as if it were an "E" without the top/bottom legs) and then that attached to a mast pole by the use of a larger "T" or even a 90' el that will fit the mast pole OD

2085. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:39:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c36a59$1_1@spool9-west.superfeed.net>
Source record: 74051
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:
> There lies our misperceptions; I was not referring to using an HF SWR
> meter designed for coax and plugging it into 450 ohm ladder line.

But I specifically stated above the Z0 environment was different
from 50 ohms. The same type of error happens when one uses a
50 ohm SWR meter in a 75 ohm coaxial line.
--
73, Cecil http://www.qsl.net/w5dxp

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2086. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:40:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c36ac6$1_1@spool9-west.superfeed.net>
Source record: 74052
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> The problem is that current is not reflected back from the load, power
> is. Thus the you can add magnitudes of power.

If power (ExH) is reflected then, of course current is reflected.
Powers can be added but you *must* include the interference term.
--
73, Cecil http://www.qsl.net/w5dxp

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2087. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 03:44:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c36bb7$1_2@spool9-west.superfeed.net>
Source record: 74053
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:
> Agreed that a rig cannot detect the difference between forward and
> reflected power. If the reflection coeffiecient of the source is zero
> then final stage of a transmiter will look purely resistive to any
> power reflected by the load. Thereby that refelcted power is
> dissapated as heat. Other reflection coefficients at the source will
> yield lesser amounts of reflected power from the load as heat.

This is true for a source equipped with a circulator and load but
most ham transmitters are not equipped with a circulator and load.
You must take the phase of the voltages or currents into account
in order to calculate the interference power term. Only then will
you be able to tell where the power goes.
--
73, Cecil http://www.qsl.net/w5dxp

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2088. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 04:00:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c36f4d$1_1@spool9-west.superfeed.net>
Source record: 74054
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Roy Lewallen wrote:
> But I do want to caution
> readers that this view of "reflected power" is demonstrably incorrect.

So is your concept of "sloshing" energy. Reflected energy
waves are demonstrably real. One can find out exactly where
the reflected power goes by taking the interference power
terms into account. Optics engineers figured it out a long
time ago.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2089. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 04:10:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c371ad$1_2@spool9-west.superfeed.net>
Source record: 74055
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:

> Wes Stewart <n7ws_@*yahoo.com> wrote:
>>In a word, baloney. The error is independent of length. A zero length
>>bridge calibrated at 75 ohm is in error when measuring in a 50 ohm
>>system. Period.
>
> Prove it.

A 75 ohm bridge is expecting the ratio of voltage to current
to be 75 for a matched system. In a 50 ohm matched system, the
ratio of voltage to current will be 50. Therefore, the 75 ohm
bridge won't be balanced. A 50 ohm bridge would be balanced.
--
73, Cecil http://www.qsl.net/w5dxp

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2090. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 04:18:57 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11c6slkr0keg466@corp.supernews.com>
Source record: 74056
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

james wrote:

snip

> *****
>
> Agreed that a rig cannot detect the difference between forward and
> reflected power. If the reflection coeffiecient of the source is zero
> then final stage of a transmiter will look purely resistive to any
> power reflected by the load. Thereby that refelcted power is
> dissapated as heat. Other reflection coefficients at the source will
> yield lesser amounts of reflected power from the load as heat.
>
> james

So if I have a perfect voltage source in series with a 50 ohm resistor, and I set the voltage source for 100Vrms (50W to the load, 50W to the source resistor) and I leave the output terminals open (100% reflected power) then the resistor will dissipate 100W? With no current flowing through it?

Wow. I gotta review my basic electronics.

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2091. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 04:28:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <76t6c19afu0m54sbj93690tnrfkpsokndk@4ax.com>
Source record: 74057
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 23:00:17 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Optics engineers figured it out a long time ago.
And you have consistently failed in its demonstration - so what?

2092. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 04:44:47 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120106687.314808.156490@g43g2000cwa.googlegroups.com>
Source record: 74058
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Depends on what you mean by error. Is it a linear system? If the near field strength increases with no change in the radiating structure itself (and propagation is stable, etc.), does the far field not increase by the same ratio? But of course, with a repositionable (rotatable) directional antenna, it's pretty hard to calibrate the FSM in a meaningful way since the antenna system changes (quite a lot, with respect to the FSM) as you rotate it, so you don't know from one time to the next that you have the RIGHT field strength. I'd (ideally) like to know that the transmitter is properly adjusted to output a clean signal, and that the antenna system presents the proper load to the transmitter, AND that the antenna system is radiating like I'd like it to. The "SWR meter" is one component that helps me, but with only one of those tasks. (And yes, it's fine with me if you care also about the SWR on your 450 ohm balanced line...there may also be good reason for wanting to know that.)

Cheers,
Tom

PS--Frank, if you look back in the archives from this group, you'll find directional couplers (of the sort that measure the line at a single point) explained in great detail with four-part harmony and the whole nine yards. Go study them and you may understand why calibration is important.

2093. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 04:56:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c37c60$1_1@spool9-west.superfeed.net>
Source record: 74059
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Roy Lewallen wrote:
> There are several
> examples at Food for thought.txt available at
> http://eznec.com/misc/food_for_thought/.

Regarding errors in the first food_for_thought:

A 100w source equipped with a circulator and load while
looking into an open line, will generate 100w and dissipate
100w in the circulator load. That 100w is definitely not free
power. It can be demonstrated to have made a round trip to
the open end of the feedline and then back to the circulator
load.

The error in your thinking is that the source would see an open
circuit when it is equipped with a circulator and load. It won't.
It will *always* see the Z0 of the feedline as its load (assuming
the circulator load equals Z0). That's the purpose of using
the circulator and load - to allow the source to see a fixed
load equal to Z0.
--
73, Cecil http://www.qsl.net/w5dxp

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2094. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 05:03:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c37e3a$1_1@spool9-west.superfeed.net>
Source record: 74060
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Optics engineers figured it out a long time ago.
>
> And you have consistently failed in its demonstration - so what?

I can lead you to water but I can't make you drink.
--
73, Cecil http://www.qsl.net/w5dxp

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2095. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 05:24:10 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <9ov6c159evqcisqsg5fdq1file0qbe3ooj@4ax.com>
Source record: 74061
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 22:39:10 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote in <42c36a59$1_1@spool9-west.superfeed.net>:

>Frank Gilliland wrote:
>> There lies our misperceptions; I was not referring to using an HF SWR
>> meter designed for coax and plugging it into 450 ohm ladder line.
>
>But I specifically stated above the Z0 environment was different
>from 50 ohms. The same type of error happens when one uses a
>50 ohm SWR meter in a 75 ohm coaxial line.

If that were true then the mere existence of standing waves could
render any measurements worthless. Regardless, I did the experiment a
long time ago -- take a 50 ohm SWR meter and plug it into a 75 ohm
line -- it gives you almost the same measurement (in fact, I didn't
see -any- difference at all). Any small error you might see is, as I
said before, insignificant, especially considering the reason you are
measuring SWR in the first place. The objective is simply to get the
reading as low as practially possible. If you feel the need to quibble
about a couple tenths of a point on a ratio then maybe you're spending
a little too much time playing with the calculator instead of the
antenna.

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2096. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 05:53:24 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <hm07c1daqgnt2j5kfr4jf5mnuhb9j2g9hs@4ax.com>
Source record: 74062
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 23:10:25 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote in <42c371ad$1_2@spool9-west.superfeed.net>:

>Frank Gilliland wrote:
>
>> Wes Stewart <n7ws_@*yahoo.com> wrote:
>>>In a word, baloney. The error is independent of length. A zero length
>>>bridge calibrated at 75 ohm is in error when measuring in a 50 ohm
>>>system. Period.
>>
>> Prove it.
>
>A 75 ohm bridge is expecting the ratio of voltage to current
>to be 75 for a matched system. In a 50 ohm matched system, the
>ratio of voltage to current will be 50. Therefore, the 75 ohm
>bridge won't be balanced. A 50 ohm bridge would be balanced.

The bridge is calibrated to the impedance of the directional coupler
(which is usually built to match the expected line impedance, but
cannot be "zero length" in the present state of reality). If the
impedance of the signal is different than what is expected by the
bridge then your power measurements will probably be wrong (to what
extent they are wrong may or may not be important). But if that's the
case then any error will be the same by percentage and sign for both
forward =AND= reflected power because the impedance of the signal is
the same for both forward and reflected power. IOW, the ratio is the
same -despite- the impedance.

If you don't believe me, try it yourself.

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2097. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 06:39:52 UTC
From: Owen <owen@no.where>
Message-ID: <4a47c11oql7odhd5dbjdf25qumj5uviauq@4ax.com>
Source record: 74063

On Wed, 29 Jun 2005 22:53:24 -0700, Frank Gilliland
<wï¿½renut@NOSPAMï¿½cehouse.net> wrote:

>cannot be "zero length" in the present state of reality). If the
>impedance of the signal is different than what is expected by the
>bridge then your power measurements will probably be wrong (to what
>extent they are wrong may or may not be important). But if that's the
>case then any error will be the same by percentage and sign for both
>forward =AND= reflected power because the impedance of the signal is
>the same for both forward and reflected power. IOW, the ratio is the
>same -despite- the impedance.

Lets make an assumption that we are talking about lossless lines. (If
you are not, then the reflectometer does not provide an accurate
indication of forward and reverse power.)

If you use an ideal 50 ohm reflectometer (that means it is a
negligibly short 50 ohm through line and it is nulled to show zero
reflected power when connected to a 50+j0 load) to measure conditions
in a line, the power flow at that point is the indicated Pf-Pr. If you
had placed an ideal 75 ohm instrument in that spot, the readings are
not necessarily in the same ratio (they are unlikely to be so), but
the difference between Pf and Pr will be the same.

The only other inference you can make from one instrument with regard
to the other will be if one of the instruments shows zero reflected
power, then you know the VSWR that the other instrument will indicate.

Real instruments aren't of zero length, but some types of design are
so close to it at low HF frequencies, you will not detect the error
that is introduced.

Owen
--

2098. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 06:47:07 UTC
From: Owen <owen@no.where>
Message-ID: <na57c198or8tfg1ekpj0hnefhs3pgmg1rh@4ax.com>
Source record: 74064

Updated:

On Wed, 29 Jun 2005 22:53:24 -0700, Frank Gilliland
<wï¿½renut@NOSPAMï¿½cehouse.net> wrote:

>cannot be "zero length" in the present state of reality). If the
>impedance of the signal is different than what is expected by the
>bridge then your power measurements will probably be wrong (to what
>extent they are wrong may or may not be important). But if that's the
>case then any error will be the same by percentage and sign for both
>forward =AND= reflected power because the impedance of the signal is
>the same for both forward and reflected power. IOW, the ratio is the
>same -despite- the impedance.

Lets make an assumption that we are talking about distortionless
lines. (If you are not, then the reflectometer does not provide an
accurate indication of forward and reverse power.)

If you use an ideal 50 ohm reflectometer (that means it is a
negligibly short 50 ohm through line and it is nulled to show zero
reflected power when connected to a 50+j0 load) to measure conditions
in a line, the power flow at that point is the indicated Pf-Pr. If you
had placed an ideal 75 ohm instrument in that spot, the readings are
not necessarily in the same ratio (they are unlikely to be so), but
the difference between Pf and Pr will be the same.

The only other inference you can make from one instrument with regard
to the other will be if one of the instruments shows zero reflected
power, then you know the VSWR that the other instrument will indicate.

Real instruments aren't of zero length, but some types of design are
so close to it at low HF frequencies, you will not detect the error
that is introduced.

Owen
--

2099. Re: Radials for a Vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 07:34:22 UTC
From: Gary
Message-ID: <h287c1tid4p92ur47psfmqdlb4v2s1gp6h@4ax.com>
Source record: 74065

On Wed, 29 Jun 2005 18:27:54 -0700, "Chuck Olson"
<chuckolson01@REMOVETHIScomcast.net> wrote:

>
>"Gary" <grynwbry@@@@Yahoo.com> wrote in message
>news:qmg6c1t30ebsrastsm06rcqhnf7m131525@4ax.com...
>> I'm thinking of buying a used Hustler 6BTV vertical (80 thru 10
>> coverage) and was wondering about how many radials I'd need and how
>> long they should be ? If I do get it, I'd be ground mounting the
>> vertical and planting the radials about 1 - 2 inches deep in soil
>> that's mainly clay.
>>
>> Thanks in advance.
>>
>> 73 Gary
>>
>You might want to think about hardware cloth - - half inch screen dipped in
>zinc - - virtually one continuous sheet, solderable and resistant to weather
>and moisture. It comes in a 36" width, and I bought about 100 ft of it for
>my ground-mounted 6-band Butternut. The results have been excellent. People
>use cars and trailers for their counterpoise - - but this makes a much
>bigger one, with a lot more capacitance to ground. You can then sod over it
>or put in plastic sheeting and pebbles - - whatever you like. The only thing
>you need to settle is to get your sprinklers arranged ahead of time so you
>don't have to trench through under the hardware cloth.
>
>73, Chuck W6PKP
>

Ok, thanks Chuck ... 73 Gary K8IQ

2100. Re: Radials for a Vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 07:35:21 UTC
From: Gary
Message-ID: <6487c1li398smo1o6p01ksjp2t6tbvelgg@4ax.com>
Source record: 74066

On Thu, 30 Jun 2005 03:37:48 GMT, 'Doc <w5lz@cwis.net> wrote:

>Gary,
> The general 'generic' answer is as many as you can stand to
>put in, and as long as you can make them. Usually, the length is a 1/4
>wave (or sort of close) for the lowest frequency of use. Don't have
>that much room? Then make them as long as possible. The more you put
>down the 'better' it'll be. That's where the 'as many as you can stand'
>comes in. At some point you'll be ready to quit, so quit...
> 'Doc
>
>PS - The 'text book' answer? Not really, but probably the average one.

Thanks Doc ! .... 73 Gary K8IQ

2101. Re: FA: 1000 feet RG-223/U coax, mil spec. made in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 09:46:22 UTC
From: pa0ary <pa0ary@home.nos-pam.nl>
Message-ID: <da0eva$h0p$1@news2.zwoll1.ov.home.nl>
Source record: 74067
Cross-posted to: alt.ham-radio,alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.swap

AAA RF Products wrote:
> Please see:
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=36338&item=7527498668&rd=1&ssPage
Name=WDVW
>
>
>
> web: www.aaarfproducts.com
> email: sales@aaarfproducts.com
> call: 949 481 3154
> fax: 949 388 5448
> or mail: AAA RF Products, 949 Calle Amanecer, San Clemente, CA 92673 USA
>
>

29 dollarcents per feet plus transport costs for old RG223 coax cable?
What's the price of similar brand new cable per feet?

--
73 de Ary, pa0ary

"The amateur is progressive.....He keeps his station abreast of science.
It is well-built and efficient.
His operating practice is above reproach." (As formulated by Paul M.
Segal, W9EAA in the year 1928)

2102. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 12:08:03 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1120133283.128078.50070@g14g2000cwa.googlegroups.com>
Source record: 74068
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

I'm not quite sure what you are trying to say Frank.

Frank Gilliland wrote:
> On Wed, 29 Jun 2005 23:10:25 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote in <42c371ad$1_2@spool9-west.superfeed.net>:

> The bridge is calibrated to the impedance of the directional coupler
> (which is usually built to match the expected line impedance, but
> cannot be "zero length" in the present state of reality).

The direction coupler samples voltage across and current through a given point. There is always a current transformer of some type and a voltage sample through some type of divider. The "voltages" representing E and I are summed before detection (conversion to dc).

The "directivity" comes because the current phase sample is reversed 180 degrees from the summing phase, causing voltages to subtract.

This means the directional coupler is calibrated for a certain ratio of voltage and current, so when they exist you have twice the voltage in the direction where E and I add, and zero voltage where they subtract.

If the
> impedance of the signal is different than what is expected by the
> bridge then your power measurements will probably be wrong (to what
> extent they are wrong may or may not be important). But if that's the
> case then any error will be the same by percentage and sign for both
> forward =AND= reflected power because the impedance of the signal is
> the same for both forward and reflected power. IOW, the ratio is the
> same -despite- the impedance.

?What does that mean?

If the directional coupler is calibrated at 50 ohms and you use it in a 75 ohm system you won't get a total reflected null even if the 75 ohm line has a 1:1 SWR. But if you subtract reflected power from forward power readings you will get the correct power, within linearity and calibration limits of the "meter system". This has nothing to do with standing waves. It has only to do with the relationship between current and voltage at the point where the directional coupler is inserted.

I'm not sure if you are saying that or not.

73 Tom

2103. Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 12:32:33 UTC
From: Dan Richardson <k6mhe>
Message-ID: <67p7c1ppcdm5piv42018h3qekfbt7bp339@4ax.com>
Source record: 74069

There has been considerable discussion on the antenna news group regarding ground systems for monopole antennas. Invariably, a reference is made to a study prepared by Brown, Lewis, and Epstien that was published in the proceedings of the IRE in 1937. Unfortunately, many amateurs do not live near a major library or university where they would be able to obtain a copy of this paper.

Therefore, I have placed on my web site a scanned copy of "Ground Systems As A Factor In Antenna Efficiency" by G.H. Brown, R.F. Lewis and J. Epstein which was publish by Institute of Radio Engineers in June 1937. This scanned copy is identical in format as a copy I obtained from the library.

Be advised that you need Adobe Reader for viewing. Additionally, this is a rather large file (about 3MB).

You may view this document at:

http://users.adelphia.net/~k6mhe/BLE.html

73,
Danny, K6MHE

2104. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 12:36:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c3e841$1_2@spool9-west.superfeed.net>
Source record: 74070
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>But I specifically stated above the Z0 environment was different
>>from 50 ohms. The same type of error happens when one uses a
>>50 ohm SWR meter in a 75 ohm coaxial line.
>
> If that were true then the mere existence of standing waves could
> render any measurements worthless. Regardless, I did the experiment a
> long time ago -- take a 50 ohm SWR meter and plug it into a 75 ohm
> line -- it gives you almost the same measurement (in fact, I didn't
> see -any- difference at all).

Please run it again in the following configuration:

Xmtr--1/4WL 75 ohm line--SWR meter--1/4WL 75 ohm line--50 ohm load

The SWR meter will read 2.25:1 when the actual SWR is 1.5:1

Xmtr--1/2WL 75 ohm line--SWR meter--1/2WL 75 ohm line--50 ohm load

The SWR meter will read 1:1 when the actual SWR is 1.5:1

> Any small error you might see is, as I
> said before, insignificant, especially considering the reason you are
> measuring SWR in the first place.

A 50% error in SWR reading is NOT insignificant.

> The objective is simply to get the
> reading as low as practially possible. If you feel the need to quibble
> about a couple tenths of a point on a ratio then maybe you're spending
> a little too much time playing with the calculator instead of the
> antenna.

A 50% error in SWR is NOT a couple tenths of a point.
--
73, Cecil http://www.qsl.net/w5dxp

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2105. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 12:41:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c3e97e$1_1@spool9-west.superfeed.net>
Source record: 74071
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>A 75 ohm bridge is expecting the ratio of voltage to current
>>to be 75 for a matched system. In a 50 ohm matched system, the
>>ratio of voltage to current will be 50. Therefore, the 75 ohm
>>bridge won't be balanced. A 50 ohm bridge would be balanced.
>
> The bridge is calibrated to the impedance of the directional coupler
> (which is usually built to match the expected line impedance, but
> cannot be "zero length" in the present state of reality). If the
> impedance of the signal is different than what is expected by the
> bridge then your power measurements will probably be wrong (to what
> extent they are wrong may or may not be important). But if that's the
> case then any error will be the same by percentage and sign for both
> forward =AND= reflected power because the impedance of the signal is
> the same for both forward and reflected power. IOW, the ratio is the
> same -despite- the impedance.

The error is NOT the same percentage. In a matched 50 ohm system,
the 75 ohm bridge reflected power reading will be off by an
infinite percentage, i.e. division by zero.

> If you don't believe me, try it yourself.

I have tried it and you are wrong. Maybe you should try it.
--
73, Cecil http://www.qsl.net/w5dxp

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2106. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 12:45:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c3ea5c$1_1@spool9-west.superfeed.net>
Source record: 74072

Owen wrote:
> Real instruments aren't of zero length, but some types of design are
> so close to it at low HF frequencies, you will not detect the error
> that is introduced.

The error that we are talking about has nothing to do with
the length of the directional coupler.

The error that we are talking about has everything to do
with an infinite error in the measurement of reflected power.
Infinite errors are hard to sweep under the rug.
--
73, Cecil http://www.qsl.net/w5dxp

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2107. Re: FA: 1000 feet RG-223/U coax, mil spec. made in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 12:51:21 UTC
From: DougSlug <dougslug@hotmail.com>
Message-ID: <dVRwe.4223$SQ1.4084@fe09.lga>
Source record: 74073
Cross-posted to: alt.ham-radio,alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.swap

One reference point:

Mouser Electronics sells 1000' of Alpha 9223 for US$1844 excluding shipping.
Belden 9223 (1000') there goes for $670. Seems like the $290 price is
pretty good.

- Doug

"pa0ary" <pa0ary@home.nos-pam.nl> wrote in message
news:da0eva$h0p$1@news2.zwoll1.ov.home.nl...
> AAA RF Products wrote:
>> Please see:
>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=36338&item=7527498668&rd=1&ssPag
eName=WDVW
>>
>>
>>
>> web: www.aaarfproducts.com
>> email: sales@aaarfproducts.com
>> call: 949 481 3154
>> fax: 949 388 5448
>> or mail: AAA RF Products, 949 Calle Amanecer, San Clemente, CA 92673 USA
>>
>>
>
> 29 dollarcents per feet plus transport costs for old RG223 coax cable?
> What's the price of similar brand new cable per feet?
>
> --
> 73 de Ary, pa0ary
>
> "The amateur is progressive.....He keeps his station abreast of science.
> It is well-built and efficient.
> His operating practice is above reproach." (As formulated by Paul M.
> Segal, W9EAA in the year 1928)

2108. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 13:42:08 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11c7tl59qsm5jbf@corp.supernews.com>
Source record: 74074
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Much noise has been radiated. I speculate that a reminder about what linearity means might get things back on track. In a linear network (lumped or distributed) superposition (of linear signals) produces correct results.

The last statement works in both directions. (The degree to which a network is linear is the same as the degree to which superposition is valid.) (If one supplies a large enough signal to any network, it will become non-linear - as in letting-out-the-smoke-put-in-at-the-factory.)

The catch in all of the above is that superposition only applies to linear signals and power (however indicated) is not a linear signal. Power, which could be complex power S = V*I* (the phasor voltage time the conjugate of the phasor current) or the magnitude of S (apparent power) or the real part of S ("real" power), simply does not obey superposition even in a network that is linear.

Bottom line: assuming the use of networks (lumped or distributed) that are essentially linear, one is only allowed to combine phasor voltages or phasor currents (but not their product nor the square of such linear signals). Once combined, the resultant voltage and the resultant current may be used to find a measure of power. (The "combined" mentioned must be a linear, additive process.)

It seems to me that Roy, and others, have plowed this ground many times.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

"Roy Lewallen" <w7el@eznec.com> wrote in message
<snip>
>
> I've posted many, many times on this topic and have shown a number of
> cases where the load is perfectly matched but the power dissipated in
> the source resistor is less than or greater than the "reverse power",
> clearly demonstrating that this concept is incorrect. There are several
> examples at Food for thought.txt available at
> http://eznec.com/misc/food_for_thought/.
>
> Because I've posted so much on the topic I won't do it all again. But I
> know at least one person on this newsgroup would be glad to have an
> opportunity to express his views once again. I'll leave this discussion
> to those who want to revisit it; I don't. But I do want to caution

> readers that this view of "reflected power" is demonstrably incorrect.
>
> Roy Lewallen, W7EL

2109. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 13:50:51 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <mns7c1du3qbvd1bous73iag6j7rgn515k0@4ax.com>
Source record: 73975
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Wed, 29 Jun 2005 19:42:53 -0700, Frank Gilliland
<wï¿½renut@NOSPAMï¿½cehouse.net> wrote:

[snipped in the interest of brevity]

>>>The error is even more
>>>insignificant when there are a host of variables and confounds between
>>>the SWR meter and the transmitted field that can (and frequently do)
>>>affect the objective -- field strength.
>>
>>Often, field strength is of zero importance. What do you do when the
>>device under test isn't supposed to radiate?
>
>
>That device probably wouldn't make a very good radio, would it?

My "SWR Meter" is one of these:

http://users.adelphia.net/~n2pk/VNA/VNAarch.html

I have < 1 mW to radiate. What kind of FSM should I use?

>
>
>> The simplest example of
>>this would be a CATV system, yet VSWR is *extremely* important in
>>cascaded networks.
>
>
>Thank you for making my point.

Not even you have made your point.

>
>
>>>It's much simpler (and just
>>>plain logical) to measure the field strength directly instead of
>>>measuring an abstract value halfway towards the objective and relying
>>>on nothing more than speculation that the rest is working according as
>>>expected.
>>
>>More baloney and it isn't even sliced.
>
>
>The word is "blarney".

My Webster's says:

baloney n (bologna) : pretentious nonsense : BUNKUM --- often used as
a generalized expression of disagreement....

I could not be more accurate.

>And although the syntax of my statement was
>somewhat 'convoluted',

A ray of hope

>the logic is sound

smashed

>-- you can dyno your engine
>all day, but the only way to know for sure how fast you can get down
>the quarter mile is to run the race.

Uh huh. By this convoluted "logic" I guess you would avoid any dyno
testing at all and just go do hit-and-miss tuning at the drag strip.

2110. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 14:23:43 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <TfTwe.22091$B_3.3770@fe05.lga>
Source record: 73976
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Reading the mail appearing in this thread is more fun than watching Saturday Night Live!

Walt, W2DU

2111. Re: FA: 1000 feet RG-223/U coax, mil spec. made in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 14:29:29 UTC
From: pa0ary <pa0ary@home.nos-pam.nl>
Message-ID: <da0vi5$24r$1@news2.zwoll1.ov.home.nl>
Source record: 73977
Cross-posted to: alt.ham-radio,alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.swap

DougSlug wrote:
> One reference point:
>
> Mouser Electronics sells 1000' of Alpha 9223 for US$1844 excluding shipping.
> Belden 9223 (1000') there goes for $670. Seems like the $290 price is
> pretty good.
>
> - Doug
>
>
> "pa0ary" <pa0ary@home.nos-pam.nl> wrote in message
> news:da0eva$h0p$1@news2.zwoll1.ov.home.nl...
>
>>AAA RF Products wrote:
>>
>>>Please see:
>>>http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=36338&item=7527498668&rd=1&ssPag
eName=WDVW
>>>
>>>
>>>
>>>web: www.aaarfproducts.com
>>>email: sales@aaarfproducts.com
>>>call: 949 481 3154
>>>fax: 949 388 5448
>>>or mail: AAA RF Products, 949 Calle Amanecer, San Clemente, CA 92673 USA
>>>
>>>
>>
>>29 dollarcents per feet plus transport costs for old RG223 coax cable?
>>What's the price of similar brand new cable per feet?
>>
>>--
>>73 de Ary, pa0ary
>>
>>"The amateur is progressive.....He keeps his station abreast of science.
>>It is well-built and efficient.
>>His operating practice is above reproach." (As formulated by Paul M.
>>Segal, W9EAA in the year 1928)
>
>
>

So for a radioham, what makes this a better cable, than for example
Aircell 7 cable?

--
73 de Ary, pa0ary

2112. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 14:41:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c40597$1_1@spool9-west.superfeed.net>
Source record: 73978
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

J. Mc Laughlin wrote:
> Bottom line: assuming the use of networks (lumped or distributed) that
> are essentially linear, one is only allowed to combine phasor voltages or
> phasor currents (but not their product nor the square of such linear
> signals).

Power can certainly be combined, just not superposed. Here is
the irradiance equation from _Optics_, by Hecht.

Itot = I1 + I2 + Sqrt(I1*I2)cos(theta)

Irradiance is power/unit-area. The last term is known as the
"interference" term. Hecht provides separate chapters for
interference and superposition, the best treatment of those
two subjects of which I am aware.

Here is the transmission line forward power equation from Dr.
Best's QST transmission line article.

Ptot = P1 + P2 + Sqrt(P1*P2)cos(theta)

It is virtually identical to the irradiance equation above.
The last term is known to be the "interference" term and
for a Z0-matched system, THETA EQUALS ZERO, so for a Z0-
matched system, a complete analysis can be done using only
the forward and reflected power magnitudes. This is something
I and others have been saying for years and it has been
called "gobbledegook" (sic) by Roy (and worse by others) even
though Roy admits that he doesn't care to understand where the
power goes.

> It seems to me that Roy, and others, have plowed this ground many times.

Yes, and they are still not 100% correct. Roy has said:
'I personally don't have a compulsion to understand where
this power "goes".' Too bad he doesn't have that compulsion
because, with a small amount of mental effort, he surely would
have figured it out before me - if by no other means, simply by
referencing the chapter on EM wave interference in _Optics_.
--
73, Cecil, http://www.qsl.net/w5dxp

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2113. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 15:09:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4012f$42c40c4c$97d55b49$28481@ALLTEL.NET>
Source record: 73979

Thank you Sir!

"Dan Richardson arrl net>" <k6mhe<atdot> wrote in message
news:67p7c1ppcdm5piv42018h3qekfbt7bp339@4ax.com...
> There has been considerable discussion on the antenna news group
> regarding ground systems for monopole antennas.

2114. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 15:41:58 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120146118.249168.323730@g44g2000cwa.googlegroups.com>
Source record: 73980
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank wrote, "Prove it."

OK, here I am at the track (the bench). I have an SWR meter that I've verified with my HP8653 to behave like a short section of 50 ohm line at the frequency of interest. I put a load on its output that I've also verified to be 50 ohms at the frequency of interest. I've applied power to the load through the SWR meter. The indicated SWR is 1.23:1.

I took the SWR meter apart, and located a particular resistor. I changed its value slightly. I re-verified that the meter still looks like a short section of 50 ohm line. I re-ran the experiment of applying power through the meter to the load. The indicated SWR is now 1.05:1.

Yes, I really have done that!

This particular meter is built, as very many of them are, to sample current and voltage at a point of essentially zero length on the line. The current sample (through a current transformer: line center passes through a toroid; secondary is several turns, loaded by that calibration resistor) is converted to a voltage by dropping it through a resistance, and by changing that resistance, I can change the relative amount the current contributes to the measurement. In other words, if the voltage sample is v(samp)=k*v(line), I want to adjust the current sampling so v(i(samp)) = k*Zo*i(line), where Zo is the impedance to which the meter is calibrated to measure SWR. In some meters, there is a means to adjust the voltage sampling ratio easily with a variable trimmer capacitor. Either way works. The adjustment DOES have a TINY effect on the impedance the meter presents to the line it's in, but that is very minor, compared with the range of adjustment of the impedance calibration value.

Yes, I really have adjusted a meter which uses the variable capacitor, too.

Cheers,
Tom

2115. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:05:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ci58c11ikj6p41cm4c6cpjor0lvngabhvj@4ax.com>
Source record: 73982
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 09:41:05 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Power can certainly be combined, just not superposed. Here is
>the irradiance equation from _Optics_, by Hecht.
>Itot = I1 + I2 + Sqrt(I1*I2)cos(theta)
According to this formula, for two laser beams of 100W each, without
any phase difference, we can illuminate a target with
Itot = 100 + 100+ Sqrt(100*100)cos(0)
Itot = 300W

Every CBer's dream....

Hecht should sue you for copyright Unfair Use.

2116. "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:05:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c4197b$1_1@spool9-west.superfeed.net>
Source record: 73981

The complete text referenced here can be accessed at:

http://eznec.com/misc/food_for_thought/

The first one is "Forward and reverse power" and is much
easier to read if it is copied-and-pasted into Word.

The first comment is just a nit: "(the current isn't
transformed by the half wavelength line either.)"

A 1/2 wavelength of transmission line reverses the
phase of the current, certainly a 180 degree
"transformation".

The main point centers around this false statement:
"While the nature of the voltage and current waves when
encountering an impedance discontinuity is well understood,
we're lacking a model of what happens to this "reverse power"
we've calculated."

Absolutely false! We are not lacking a model. We have time-
tested models that people with closed minds simply refuse to
consider. One such model is the s-parameter analysis presented
in HP's App Note 95-1, available on the web. Quoting: "Another
advantage of s-parameters springs from the simple relationship
between the variables a1, a2, b1, and b2, and various *POWER
WAVES*. ... s-parameters are simply related to power gain and
mismatch loss, quantities which are often of more interest
than the corresponding voltage functions." (emphasis mine)

The model is there. Concrete brains refuse to take a look
and instead call it "gobbledegook" (sic).

There's another model that agrees 100% with an s-parameter
analysis and it is from the field of optics, covered in
detail in _Optics_, by Hecht. Non-glare glass works the same
way as a 1/4WL matching section in a transmission line.
Again the model is there, just ignored by gurus on this
newsgroup which leads to demonstrably wrong conclusions
on their parts.

What happens to the energy in EM light waves
has been known and understood for many decades and cannot
be understood without an understanding of the laws of physics
governing interference between EM waves. Likewise, what happens
to the energy in EM RF waves cannot be understood without an
understanding of those same laws of physics.

There are many posters to r.r.a.a who have no clue about the
laws of physics governing interference between EM waves. That
ignorance is the entire problem with this discussion. Solution:
Alleviate the ignorance.

Quoting again from Roy's web page:
'ANY MODEL PRESENTED TO ACCOUNT FOR WHAT HAPPENS TO "FORWARD" AND
"REVERSE" POWER AT TRANSMISSION LINE ENDS HAD BETTER GIVE RESULTS THAT
AGREE WITH THE ABOVE TABLE.'

And, of course, the two above power/energy models agree exactly with
Roy's table but that doesn't seem to matter one iota. They are still
"gobbledegook" (still sic).
--
73, Cecil, http://www.qsl.net/w5dxp

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2117. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:08:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a7a80$42c419af$97d55b49$32646@ALLTEL.NET>
Source record: 73983
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

SWR=Strewn With Rumor

"Walter Maxwell" <walt@w2du.com> wrote in message
news:TfTwe.22091$B_3.3770@fe05.lga...
> Reading the mail appearing in this thread is more fun than watching
Saturday
> Night Live!
>
> Walt, W2DU
>
>

2118. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:09:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c41a6c$1_2@spool9-west.superfeed.net>
Source record: 73984
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

K7ITM wrote:
> Yes, I really have adjusted a meter which uses the variable capacitor,
> too.

In the old Heathkit SWR meter were instructions to
install either two 50 ohm resistors for a 50 ohm SWR
meter or two 75 ohm resistors for a 75 ohm SWR meter.
We used a lot of RG-11 back in those days.
--
73, Cecil, http://www.qsl.net/w5dxp

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2119. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:13:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3d68c1dhinm8sjf75mvfhvft062r1n3uoc@4ax.com>
Source record: 73986

On Thu, 30 Jun 2005 11:05:57 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
> Non-glare glass works the same
>way as a 1/4WL matching section in a transmission line.
One trivial example that you thoroughly bumbled through every mistake
possible, arriving at no answer before abandoning.

2120. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:14:01 UTC
From: james <george@washington.edu>
Message-ID: <q068c150cf74psmmk0i5dkull7g0t3kdtm@4ax.com>
Source record: 73985
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 01:30:39 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>
>Convolution is a mathematical stunt you can perform with
>two functions: f(x)* g(x) = (integral from 0 to x) f(t)g(x-t) dt.
>At least that's how it's explained in Schaum's Outline book
>_Differential Equations_. It's pretty tough to see how it relates
>to power in a transmission line. Maybe someone has a use for it
>there.
>73,
>Tom Donaly, KA6RUH
****

Yes Tom

Convultion was the wrong term to use. I made a mistake because i type
as i think and on occasion hit send before i reread what i have
written.

I still contend that a sinusoidal wave travelling down a coax is
comprised of perpendicular(orthogonal) E and H fields. The these
vector fields that induce sinusodial current and voltage potential
vectors in and between the shield and center conductors as the wave
travels. Both the source and reflected waves are comprised of two
vector fields, E and H. Granted this is true only when the load
reflection coefficient is not zero. In that case of zero, then there
is no reflected power.

It is possible to derive from the vector current and vector voltage a
magnitude of those vectors and thus a produce two scalar quantities
that can be pluged into Ohm's Law and derive an instantaineous power
at a given time and position on the coax. That both source and
reflected sinusoidal current and voltage can have derived scalar
values. These values can be directly added.

This all started from an SWR question. I contend that the
instantaineous power at any given time and position of the coax can be
expressed as the sum of the magnitudes or scalar quantities of the
source and reflected powers. If you are wanting just the magnitudes of
the power, then this should work.

james

2121. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:18:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c41c73$1_2@spool9-west.superfeed.net>
Source record: 73987
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Richard Clark wrote:

> On Thu, 30 Jun 2005 09:41:05 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>Power can certainly be combined, just not superposed. Here is
>>the irradiance equation from _Optics_, by Hecht.
>>Itot = I1 + I2 + Sqrt(I1*I2)cos(theta)
>
> According to this formula, for two laser beams of 100W each, without
> any phase difference, we can illuminate a target with
> Itot = 100 + 100+ Sqrt(100*100)cos(0)
> Itot = 300W

Sorry, I made a mistake in the equation. Please forgive
my omission. Here's the correct equation:

Itot = I1 + I2 + 2*Sqrt(I1*I2)cos(theta)

So if theta equals zero, Itot would be 400w, not 300w.

This is the power of superposition of coherent waves. When
you superpose two 100w coherent laser beams, the resultant
power is indeed 400w and must be supplied by the sources
or supplied by destructive interference from somewhere else.
This is all explained in _Optics_, by Hecht. Hows about
reading it so I won't have to explain superposition to you?
--
73, Cecil, http://www.qsl.net/w5dxp

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2122. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:22:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c41d74$1_2@spool9-west.superfeed.net>
Source record: 73988
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Cecil Moore wrote:
> Itot = I1 + I2 + Sqrt(I1*I2)cos(theta)

Sorry, should be:
Itot = I1 + I2 +2*SQRT(I1*I2)cos(theta)

> Ptot = P1 + P2 + Sqrt(P1*P2)cos(theta)

Sorry should be:
Ptot = P1 + P2 + 2*Sqrt(P1*P2)cos(theta)
--
73, Cecil, http://www.qsl.net/w5dxp

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2123. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 16:43:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c42241$1_2@spool9-west.superfeed.net>
Source record: 73989

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>Non-glare glass works the same
>>way as a 1/4WL matching section in a transmission line.
>
> One trivial example that you thoroughly bumbled through every mistake
> possible, arriving at no answer before abandoning.

It was an example for Jim Kelley to respond to.
He declined to discuss it, nobody else (including you)
responded with any technical content, so the thread
was abandoned. If you have anything technical to
contribute, feel free to fire it up again.

That happens a lot on this newsgroup. When someone
realizes that he is about to be proven wrong in
public, he simply goes away - human nature.
--
73, Cecil, http://www.qsl.net/w5dxp

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2124. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 17:04:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ACVwe.1321$j04.785@newssvr21.news.prodigy.com>
Source record: 73990

Cecil Moore wrote:
> Richard Clark wrote:
>
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>
>>> Non-glare glass works the same
>>> way as a 1/4WL matching section in a transmission line.
>>
>>
>> One trivial example that you thoroughly bumbled through every mistake
>> possible, arriving at no answer before abandoning.
>
>
> It was an example for Jim Kelley to respond to.
> He declined to discuss it, nobody else (including you)
> responded with any technical content, so the thread
> was abandoned. If you have anything technical to
> contribute, feel free to fire it up again.
>
> That happens a lot on this newsgroup. When someone
> realizes that he is about to be proven wrong in
> public, he simply goes away - human nature.

Cecil, you never actually prove anyone wrong,
you just get excited and irrational whenever
anyone disagrees with you. You're confusing the
fear of being proven wrong with just giving
up in disgust at your silly antics.
73,
Tom Donaly, KA6RUH

2125. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 17:14:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c42991$1_2@spool9-west.superfeed.net>
Source record: 73991

Tom Donaly wrote:
> You're confusing the
> fear of being proven wrong with just giving
> up in disgust at your silly antics.

More of the same personal stuff. How about some
technical content for a change?
--
73, Cecil, http://www.qsl.net/w5dxp

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2126. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 17:41:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kjb8c1142itj87jhfc793svcugvabo7ohe@4ax.com>
Source record: 73992
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 11:18:37 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Sorry, I made a mistake in the equation.
...
>Hows about reading it so I won't have to explain superposition to you?
Certainly no one stands any chance of understanding your explanations
given the continuing goof-ups.

2127. wireless headphones

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 17:49:39 UTC
From: Bob <cdumas1@columbus.rr.com>
Message-ID: <TgWwe.29046$IL3.14685@tornado.ohiordc.rr.com>
Source record: 73993

Is there a way to increase the range of a sennheiser wireless headphones
modle rs45?

2128. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 17:53:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tmb8c1hibc9t5u6ssmcmso2ahpeuhl25j2@4ax.com>
Source record: 73994
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 11:18:37 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>When you superpose two 100w coherent laser beams, the resultant
>power is indeed 400w
Yowza! You, with W's help, can roll your Social Security over into
investments in the CB amplifier Market.
>and must be supplied by the sources
[Hecht rolling his eyes] So, this means that Hecht's formula only
works for steady state? :-)
If both are 100W pulses, and the lasers are off before the target are
pulse illuminated -um-
1.) 100W
2.) 200W
3.) 400W
4.) no hundred W
>or supplied by destructive interference from somewhere else.
Maybe two more magic lasers?
>This is all explained in _Optics_, by Hecht.
Somehow, I don't think so.

How many errors can our readers count?
For N = number of words in orginal posting
errors = N!

Such is the problem of Xerox research.

2129. Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 17:57:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c43383$1_1@spool9-west.superfeed.net>
Source record: 73995

It would be interesting to find out who, among the
experts on this group, cannot solve this problem
for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
Vref2, Iref2 including magnitudes and phase
angles.

Given: a Z0-match at an impedance discontinuity in
a transmission line. Source is unknown. Load is
unknown. Lengths of transmission lines are unknown.
Reference phase: Vfwd1 is incident upon the Z0-match
at a reference phase angle of zero degrees.

---50 ohm feedline---+---200 ohm feedline---
Pfwd1=100w--> Pfwd2=156.25w-->
<--Pref1=0w <--Pref2=56.25w

Contrary to what some people assert, is it possible
to calculate the magnitudes and phases of the
above voltages and currents knowing only the
Z0's and the forward and reflected powers?
--
73, Cecil, http://www.qsl.net/w5dxp

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2130. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:03:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mhc8c1972lru7mhkgku0pjrle9jj00f3kb@4ax.com>
Source record: 73996

On Thu, 30 Jun 2005 12:14:36 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>More of the same personal stuff. How about some
>technical content for a change?
RE:
http://www.qsl.net/w5dxp/weblaser.GIF
(which I am sure you will soon hustle off in embarrassment)

For an angle of incidence of 30ï¿½

How much power is reflected from Surface A (first incidence)?

How much power is reflected from Surface B (first incidence)?

How much power is transmitted through all interfaces?

:-)

2131. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:04:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a0d8c1t1d148l6n9lak8e40g9cbd2h5odd@4ax.com>
Source record: 73997
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 12:08:05 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
>SWR=Strewn With Rumor
SWR = Strife Without Regret

2132. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:08:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c43649$1_1@spool9-west.superfeed.net>
Source record: 73998
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Richard Clark wrote:
> Certainly no one stands any chance of understanding your explanations
> given the continuing goof-ups.

Richard, I cannot recall you and I ever disagreeing upon
a technical subject. Your objections are just personal
pot shots.
--
73, Cecil, http://www.qsl.net/w5dxp

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2133. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:11:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ibd8c1poc551tlf9fc2e4gus8qt2k854gb@4ax.com>
Source record: 73999
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 13:08:52 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Richard, I cannot recall you and I ever disagreeing upon
>a technical subject.
Convenient memory.

2134. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:20:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mid8c19jufae4m00bs39t0dc1tuktr6k80@4ax.com>
Source record: 74000

On Thu, 30 Jun 2005 11:43:24 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>That happens a lot on this newsgroup. When someone
>realizes that he is about to be proven wrong in
>public, he simply goes away - human nature.
No doubt this is a set up for abandoning my other question
in this thread
Message-ID: <mhc8c1972lru7mhkgku0pjrle9jj00f3kb@4ax.com>

2135. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:24:55 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87slyzr9c8.fsf@qmc.ph.msstate.edu>
Source record: 74002

>When you superpose two 100w coherent laser beams, the resultant
>power is indeed 400w

This is correct if the two beams are coherent and have the
same polarization. Very hard to do at optical frequencies, much
easier at lower frequencies.

Tor
N4OGW

2136. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:28:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c43ade$1_1@spool9-west.superfeed.net>
Source record: 74001
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>When you superpose two 100w coherent laser beams, the resultant
>>power is indeed 400w
>
> Yowza! You, with W's help, can roll your Social Security over into
> investments in the CB amplifier Market.

Note the
following extremely important qualification. The extra power
must come from somewhere, either from the two sources or from
destructive interference. So says Hecht.

When you phasor add 100v to 100v, what V^2/Z0 do you get?

>>and must be supplied by the sources or or supplied by
>>destructive interference from somewhere else.
>
> [Hecht rolling his eyes] So, this means that Hecht's formula only
> works for steady state? :-)

Yep, irradiance is a quantity averaged over time. It is
steady-state by definition, an accumulated effect.

> If both are 100W pulses, and the lasers are off before the target are
> pulse illuminated -um-
> 1.) 100W
> 2.) 200W
> 3.) 400W
> 4.) no hundred W

You will get interference rings of 400w/unit-area and
rings of 0w/unit-area all averaging out to 200w total.
All this is covered in _Optics_. Please spare us your
ignorance and read the book.

If the sources are incapable of supplying the extra power,
For every P1+P2+2*SQRT(P1*P2), i.e. constructive interference,
there is a P1+P2-2*SQRT(P1*P2), i.e. destructive interference.
--
73, Cecil, http://www.qsl.net/w5dxp

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2137. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:39:21 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120156761.806077.158370@g49g2000cwa.googlegroups.com>
Source record: 74003
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Earlier today, I wrote, "...HP8653..." Ooops. Belay that. It's
HP8753E.

2138. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:41:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hle8c195eu6h3n8qfijkad8e3d5psbut99@4ax.com>
Source record: 74004
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 13:28:24 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>You will get interference rings
[Hecht rolling his eyes] for a target that is smaller than a
wavelength?
Must be another failure of Hecht (or Hecht pupil).
> of 400w/unit-area and
>rings of 0w/unit-area all averaging out to 200w total.
Which, of course, cannot be found in the formula:
Itot = I1 + I2 + 2*Sqrt(I1*I2)cos(theta)
nor its correction:
Itot = I1 + I2 +2*SQRT(I1*I2)cos(theta)
>If the sources are incapable of supplying the extra power,
Which, in the end was a non sequitur.
>For every P1+P2+2*SQRT(P1*P2), i.e. constructive interference,
Which, of course, cannot be found in the formula:
Itot = I1 + I2 + 2*Sqrt(I1*I2)cos(theta)
nor its correction:
Itot = I1 + I2 +2*SQRT(I1*I2)cos(theta)
>there is a P1+P2-2*SQRT(P1*P2), i.e. destructive interference.
Which, of course, cannot be found in the formula:
Itot = I1 + I2 + 2*Sqrt(I1*I2)cos(theta)
nor its correction:
Itot = I1 + I2 +2*SQRT(I1*I2)cos(theta)

When combined with the adhominem (which, of course, reveals another
inaccuracy, one of assignment):
>Please spare us your ignorance and read the book.
is possibly the best advice (once the assignment is corrected), given
the continuing goof-ups.

2139. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:43:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c43e57$1_1@spool9-west.superfeed.net>
Source record: 74005

Richard Clark wrote:

> On Thu, 30 Jun 2005 12:14:36 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>More of the same personal stuff. How about some
>>technical content for a change?
>
> RE:
> http://www.qsl.net/w5dxp/weblaser.GIF
> (which I am sure you will soon hustle off in embarrassment)
>
> For an angle of incidence of 30ï¿½

The angle of incidence is always 90 degrees. It is drawn that
way because it cannot be drawn in one dimension. This is typical
of physics textbook drawings. An angle of incidence of 30 degrees
is irrelevant to this particular example.

> How much power is reflected from Surface A (first incidence)?

The reflectance is 0.01, so 1%. First incidence 0.01 watts

> How much power is reflected from Surface B (first incidence)?

The reflectance is 0.01, so 1%. First incidence is 0.0099 watts
Steady-state after re-reflection is 0.01010101 watts

> How much power is transmitted through all interfaces?

One watt net to the "load".
The steady-state forward power in the thin film is 1.010101
watts of which 0.010101 is a steady-state internal reflection
from surface B.
--
73, Cecil, http://www.qsl.net/w5dxp

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2140. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:45:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c43ecf$1_1@spool9-west.superfeed.net>
Source record: 74006

tclay@qmc.ph.msstate.edu wrote:

>>When you superpose two 100w coherent laser beams, the resultant
>>power is indeed 400w
>
> This is correct if the two beams are coherent and have the
> same polarization. Very hard to do at optical frequencies, much
> easier at lower frequencies.

As in coherent RF waves confined to a transmission line, eh?
--
73, Cecil, http://www.qsl.net/w5dxp

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2141. Re: wireless headphones

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:51:56 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2834$42c43f4e$97d55b49$11428@ALLTEL.NET>
Source record: 74007

Yes

"Bob" <cdumas1@columbus.rr.com> wrote in message
news:TgWwe.29046$IL3.14685@tornado.ohiordc.rr.com...
> Is there a way to increase the range of a sennheiser wireless headphones
> modle rs45?
>
>

2142. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 18:56:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u7f8c1t82hrasucf4p94ditr90uvf4icpv@4ax.com>
Source record: 74008

On 30 Jun 2005 13:24:55 -0500, tclay@qmc.ph.msstate.edu wrote:

>>When you superpose two 100w coherent laser beams, the resultant
>>power is indeed 400w
>
>This is correct if the two beams are coherent and have the
>same polarization. Very hard to do at optical frequencies, much
>easier at lower frequencies.

Hi Tor,

We've seen the math pencil-whipped both ways now to cover all the
available answers. The devil's in the details that are not found in:
>Itot = I1 + I2 + 2*Sqrt(I1*I2)cos(theta)
not to mention the glaring mistakes of the first posting of this
formula.

This is like quoting Einstein's E = MCï¿½ (anyone with a Xerox can do
that) and not knowing how much energy it takes to get 100 joules of
green illumination out of a bare lightbulb.

73's
Richard Clark, KB7QHC

2143. Re: Radials for a Vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 19:35:25 UTC
From: Gary
Message-ID: <cai8c1lrbhqbqgdttc4c7pv4646puihfdk@4ax.com>
Source record: 74009

On Thu, 30 Jun 2005 14:24:52 GMT, Jim Higgins <me7@privacy.net> wrote:

>On Wed, 29 Jun 2005 21:02:02 -0400, in
><qmg6c1t30ebsrastsm06rcqhnf7m131525@4ax.com>, Gary
><grynwbry@@@@Yahoo.com> wrote:
>
>>I'm thinking of buying a used Hustler 6BTV vertical (80 thru 10
>>coverage) and was wondering about how many radials I'd need and how
>>long they should be ? If I do get it, I'd be ground mounting the
>>vertical and planting the radials about 1 - 2 inches deep in soil
>>that's mainly clay.
>
>5BTV here, ground mounted. I found that 4 radials cut for 40M
>and buried as you paln to do gave a marked improvement on all
>bands. More and longer if you can. You'll need to readjust the
>antenna for best SWR after installing radials.

Thanks for the info Jim. 73 Gary

2144. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 19:57:15 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87mzp7r52c.fsf@qmc.ph.msstate.edu>
Source record: 74010

>>>When you superpose two 100w coherent laser beams, the resultant
>>>power is indeed 400w
>>
>>This is correct if the two beams are coherent and have the
>>same polarization. Very hard to do at optical frequencies, much
>>easier at lower frequencies.
>
>Hi Tor,
>
>We've seen the math pencil-whipped both ways now to cover all the
>available answers. The devil's in the details that are not found in:
>>Itot = I1 + I2 + 2*Sqrt(I1*I2)cos(theta)
>not to mention the glaring mistakes of the first posting of this
>>formula.

So? Superposition works. With a yagi antenna, through superposition you get an EM wave which has larger intensity in certain directions than for a single dipole with the same power. Someone far away can't tell the difference between switching to a yagi and turning on a linear.

What the formula doesn't say is that in any real system, the wave must have a finite extent (not be a infinite plane wave). Then there must be destructive interference in some directions. So there isn't a problem with conservation of energy.

Tor
N4OGW

2145. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 20:01:00 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87irzvr4w3.fsf@qmc.ph.msstate.edu>
Source record: 74011

>>When you superpose two 100w coherent laser beams, the resultant
>> power is indeed 400w
> This is correct if the two beams are coherent and have the
> same polarization. Very hard to do at optical frequencies, much
> easier at lower frequencies.

>As in coherent RF waves confined to a transmission line, eh?

That's nothing new. Why do they call them "waveguides" :)? Jackson has a chapter with all the hairy details.

Tor
N4OGW

2146. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 20:18:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c454a0$1_2@spool9-west.superfeed.net>
Source record: 74012

tclay@qmc.ph.msstate.edu wrote:

>>>When you superpose two 100w coherent laser beams, the resultant
>>>power is indeed 400w
>>
>>This is correct if the two beams are coherent and have the
>>same polarization. Very hard to do at optical frequencies, much
>>easier at lower frequencies.
>
>>As in coherent RF waves confined to a transmission line, eh?
>
> That's nothing new.

Then why are some of the "experts" on this newsgroup
protesting it so much? Some don't seem to comprehend
the energy situation associated with superposition of
EM fields.
--
73, Cecil, http://www.qsl.net/w5dxp

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2147. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 20:25:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d7g8c1ps0fdg4vnth9n0cfnc45s1userqr@4ax.com>
Source record: 74013

On Thu, 30 Jun 2005 13:43:13 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>An angle of incidence of 30 degrees
>is irrelevant to this particular example.
Changing the question to suit the answer, Hmm? As if it mattered!

>> How much power is reflected from Surface A (first incidence)?
>The reflectance is 0.01, so 1%. First incidence 0.01 watts
depending upon the polarization rï¿½ = 1.583% and r|| = 0.5485%
Splitting the difference (1.066%)
0.0107W
or
0.9893W @ 24ï¿½ available at the next interface
>> How much power is reflected from Surface B (first incidence)?
>The reflectance is 0.01, so 1%. First incidence is 0.0099 watts
depending upon the polarization rï¿½ = 1.3381% and r|| = 0.7099%
Splitting the difference (1.024%)
0.0101W
or
0.9792W @ 19ï¿½ available at the next interface
>> How much power is transmitted through all interfaces?
>One watt net to the "load".
Already provided as 0.9792W

****

Since you couldn't answer the original question, let's explore how
accurate your answer to your own question was:

>> How much power is reflected from Surface A (first incidence)?
>The reflectance is 0.01, so 1%. First incidence 0.01 watts
depending upon the polarization rï¿½ = 0.9999% and r|| = 0.9999%
Splitting the difference (0.9999%)
0.0100W
or
0.9900W @ 0ï¿½ available at the next interface
>> How much power is reflected from Surface B (first incidence)?
>The reflectance is 0.01, so 1%. First incidence is 0.0099 watts
depending upon the polarization rï¿½ = 0.9998% and r|| = 0.9998%
Splitting the difference (0.9998%)
0.0099W
or
0.9801W @ 0ï¿½ available at the next interface
>> How much power is transmitted through all interfaces?
>One watt net to the "load".

Already provided as 0.9801W

But, hey, what's 2% error in a conservation of energy equation? You can prove anything (especially your absolute proofs) if you simply discard precision. Pons and Fleishman proved cold fusion by throwing away fewer digits than you.

Well, for 1W of light and presuming cancellation (you cannot achieve full cancellation); this leaves 100ï¿½W of light reflected from a non-reflecting layer - which is quite bright.

So, energy is conserved, and there is no such thing as complete cancellation.

By the way, the math is available from:
Hecht, Eugene, Optics, 2nd Ed, Addison Wesley, 1987
or perhaps you should invest in:
Hecht, Eugene, Optics, Schaum's Outline Series, McGraw-Hill ,1975

2148. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 20:36:33 UTC
From: Owen <owen@no.where>
Message-ID: <msk8c1d8gtt2fj5gen1v60qnq2512l2d31@4ax.com>
Source record: 74014

On Thu, 30 Jun 2005 06:47:07 GMT, Owen <owen@no.where> wrote:

>The only other inference you can make from one instrument with regard
>to the other will be if one of the instruments shows zero reflected
>power, then you know the VSWR that the other instrument will indicate.

As Cecil has hinted (42c43383$1_1@spool9-west.superfeed.net), you can also infer that the impedance at the point where you have two sets of Pf,Pr readings is that the impedance (R, X) is one of two values (which can be visualised as the intersection of two circles on a Smith Chart), one only in the cases VSWR1*VSWR2=Zo1/Zo2 (or the inverse) (which can be visualised as the kissing of two circles on a Smith Chart). The latter includes the case above where one or other instruments indicates VSWR=1, but is more exact because one of the circles is infinitely small.

These cases are not reliably of practical value, the conversion of error in the measurements made with each instrument, into error in the estimated R and X at the point could be huge.

So, I "correct" my statement to "The only other inference that you can reasonably reliably make from one instrument with regard to the other will be if one of the instruments shows zero reflected power, then you know R and X, and the VSWR that the other instrument should indicate.

Thanks Cecil.

Owen
--

2149. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 20:47:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c45b6d$1_1@spool9-west.superfeed.net>
Source record: 74015

Richard Clark wrote:
> But, hey, what's 2% error in a conservation of energy equation?

The error is yours. During steady-state, the forward power
in the thin film is 1.0101 watts. 1% of that is 0.0101 watts.
1.0101 - 0.0101 = one watt delivered to the "load". 100%
accuracy is guaranteed because it is a mental conceptual
exercise. To summarize:

Forward power in air is one watt.
Reflected power in air is zero watts.

Forward power in the thin-film is 1.010101010101010101 watts.
Reflected power in the thin-film is 0.10101010101010101 watts.

Power delivered through Surface B is exactly one watt, exactly
the output of the laser. Exactly the difference between the
steady-state forward and reflected power in the thin-film.

> Well, for 1W of light and presuming cancellation (you cannot achieve
> full cancellation)

That's the great thing about a mental conceptual example. Full
cancellation is guaranteed.

> So, energy is conserved, and there is no such thing as complete
> cancellation.

True for real world stuff. False for mental conceptual examples
like the one being discussed.
--
73, Cecil, http://www.qsl.net/w5dxp

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2150. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 20:52:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c45c9d$1_1@spool9-west.superfeed.net>
Source record: 74016

Cecil Moore wrote:
> Forward power in the thin-film is 1.010101010101010101 watts.
> Reflected power in the thin-film is 0.10101010101010101 watts.

Darn, missed a zero. Should be 0.010101010101010101 watts.
--
73, Cecil, http://www.qsl.net/w5dxp

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2151. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:00:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lom8c1t557o38rfne57jrpihjiggprmggn@4ax.com>
Source record: 74017

On Thu, 30 Jun 2005 15:47:19 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> So, energy is conserved, and there is no such thing as complete
>> cancellation.
>True for real world stuff. False for mental conceptual examples
>like the one being discussed.

Hi Tor,

So, do you see by this example what I describe as the devil's in the details? Absolute proof of complete cancellation using referenced math, which is then abstracted to another field to prove imponderables (mental conceptual examples).

And what purpose is served through this prostitution of citations? That thin films completely cancel reflections? - they do not. That optical interfaces exhibit complete transmission? - they do not. What makes the proofs of these unproven phenomenon necessary such as to dismiss the correct answers? Dare we follow the thread of a suspect theory to arrive at other, equally flawed steps along the way?

73's
Richard Clark, KB7QHC

2152. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:07:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vnn8c15c354br08jr3jv99e3orphlnhot9@4ax.com>
Source record: 74018

On Thu, 30 Jun 2005 15:52:23 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Darn, missed a zero. Should be 0.0101010101010101 watts.
How could it possible matter?

2153. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:11:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c46115$1_2@spool9-west.superfeed.net>
Source record: 74019

Richard Clark wrote:
> And what purpose is served through this prostitution of citations?

Well Richard, since you are being so picky, I am
going to have to insist that you prove that you
exist. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2154. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:14:11 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42c460a3$0$32198$39cecf19@news.twtelecom.net>
Source record: 74020
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Walter Maxwell wrote:
> Reading the mail appearing in this thread is more fun than watching Saturday
> Night Live!
>
> Walt, W2DU
>
>

Some of the people involved appear to be listening from inside Faraday
Cages!

tom
K0TAR

2155. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:39:22 UTC
From: Frank Gilliland <w&#65533;renut@NOSPAM&#65533;cehouse.net>
Message-ID: <7ep8c1t5qeua75jhra7vivotnb7e6pl121@4ax.com>
Source record: 74021
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

On Thu, 30 Jun 2005 07:36:21 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote in <42c3e841$1_2@spool9-west.superfeed.net>:

>Frank Gilliland wrote:
>
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>>But I specifically stated above the Z0 environment was different
>>>from 50 ohms. The same type of error happens when one uses a
>>>50 ohm SWR meter in a 75 ohm coaxial line.
>>
>> If that were true then the mere existence of standing waves could
>> render any measurements worthless. Regardless, I did the experiment a
>> long time ago -- take a 50 ohm SWR meter and plug it into a 75 ohm
>> line -- it gives you almost the same measurement (in fact, I didn't
>> see -any- difference at all).
>
>Please run it again in the following configuration:
>
>Xmtr--1/4WL 75 ohm line--SWR meter--1/4WL 75 ohm line--50 ohm load
>
>The SWR meter will read 2.25:1 when the actual SWR is 1.5:1
>
>Xmtr--1/2WL 75 ohm line--SWR meter--1/2WL 75 ohm line--50 ohm load
>
>The SWR meter will read 1:1 when the actual SWR is 1.5:1

I'm not going to argue this -- either you can play with theory and
speculate about the results, or you can do the experiment yourself,
observe the empirical evidence, and -then- use theory to explain the
results. When you get around to doing the latter give me a holler in
rrcb since I'm done cross posting on this topic.

And BTW, the best location for the directional coupler is at the
feedpoint of the antenna. Barring that, the next best place is at the
transmitter. Regardless of it's location, you should -never- leave the
coupler floating with the coax or you will end up with results like
what you describe above.

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2156. 3-M impedance bridge?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:44:23 UTC
From: Gary Cavie <m0jjh@despammed.com>
Message-ID: <MPG.1d2e780e5d97a93298969a@news.individual.net>
Source record: 74022

Hi,

Does anybody have any experience with the above, as discussed in The Antenna Experimenter's Handbook, by Peter Dodd G3LDO?

I'm planning to build a version, with a 4-channel A-D to take the measurements, and display the results on the PC. A further stage of development will be to add a DDS as the signal source, giving me a PC-based antenna analyser.

Assuming I go down this route, what do people think about using the voltage derived from input power (Ea if you know the circuit) as the reference for the A-D, giving me a proportional figure for the other 4 measurements without having to scale in software? More to the point, has anybody actually played around with this setup, and would like to share tips?

Thanks

Gary, M0JJH

2157. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:46:54 UTC
From: Charles Strong <strong618@suscom.net>
Message-ID: <1ZqdnWI-e-nT9VnfRVn-iA@suscom.com>
Source record: 74023

Thank you, Thank you, Thank you.

Charlie

2158. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:55:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c46b3d$1_1@spool9-west.superfeed.net>
Source record: 74024
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Frank Gilliland wrote:
> Regardless of it's location, you should -never- leave the
> coupler floating with the coax or you will end up with results like
> what you describe above.

The results above obey the laws of physics. What laws do your
results obey?
--
73, Cecil http://www.qsl.net/w5dxp

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2159. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 21:57:02 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20050630175702.405$o0@newsreader.com>
Source record: 73925
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

Cecil Moore <w5dxp@hotmail.com> wrote:
> Frank Gilliland wrote:
> > Regardless of it's location, you should -never- leave the
> > coupler floating with the coax or you will end up with results like
> > what you describe above.
>
> The results above obey the laws of physics. What laws do your
> results obey?
>
You guys are just itchin' for a visit from the coax length police. :D

2160. Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 22:45:08 UTC
From: Owen <owen@no.where>
Message-ID: <scq8c1hj21c4a8ngr1ek05chinkurob2c9@4ax.com>
Source record: 73926

I am trying to reconcile the following in respect of for practical low loss RF transmission lines:

In the RLGC model for Zo and gamma, it is generally accepted a good approximation is that R=c1*f**0.5, G=c2*f, and L and C are constant.

If the term (G+j*2*pi*f*C) can be rearranged as (2*pi*f*C(G/(2*pi*f*C)+j)), and substituting c2*f for G, written as (2*pi*f*C(c2/(2*pi*C)+j)).

If we regard G to be principally the loss in the dielectric , then c2/(2*pi*C) should give us the dielectric loss factor, D, 1/Q, tan(delta), dissipation factor, power factor, whatever you want to call it.

alpha= 0.5*R/NomZo+0.5*G.NomZo
It also seems generally accepted that Matched Line Loss (MLL) can be modeled well by the expression MLL=k1*f**0.5+k2*f.

(Remember that alpha= 0.5*R/NomZo+0.5*G.NomZo)

It follows then that c2=k2/(10*log(e)*Ro), and that (G+j*2*pi*f*C)= 2*pi*f*C(k2/(10*log(e)*Ro)/(2*pi*C)+j) which implies that D is k2/(10*log(e)*Ro)/(2*pi*C).

Problem is, that whilst PE has D somewhere about 2e-5 up to 1GHz, the loss model for RG58CU (PE dielectric) indicates D 2e-3 much much less than would be expected from D of the PE dielectric alone.

Any thoughts. Is there an inconsistency between the explanation that G is principally due to D of the dielectric material, or I have I messed the maths up?

Owen
--

2161. Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 22:46:39 UTC
From: Owen <owen@no.where>
Message-ID: <ght8c1hh0j3no2lqbi1vnaqr9dsk41ae8e@4ax.com>
Source record: 73927

I am trying to reconcile the following in respect of for practical low loss RF transmission lines:

In the RLGC model for Zo and gamma, it is generally accepted a good approximation is that R=c1*f**0.5, G=c2*f, and L and C are constant.

If the term (G+j*2*pi*f*C) can be rearranged as (2*pi*f*C(G/(2*pi*f*C)+j)), and substituting c2*f for G, written as (2*pi*f*C(c2/(2*pi*C)+j)).

If we regard G to be principally the loss in the dielectric , then c2/(2*pi*C) should give us the dielectric loss factor, D, 1/Q, tan(delta), dissipation factor, power factor, whatever you want to call it.

alpha= 0.5*R/NomZo+0.5*G.NomZo
It also seems generally accepted that Matched Line Loss (MLL) can be modeled well by the expression MLL=k1*f**0.5+k2*f.

(Remember that alpha= 0.5*R/NomZo+0.5*G.NomZo)

It follows then that c2=k2/(10*log(e)*Ro), and that (G+j*2*pi*f*C)= 2*pi*f*C(k2/(10*log(e)*Ro)/(2*pi*C)+j) which implies that D is k2/(10*log(e)*Ro)/(2*pi*C).

Problem is, that whilst PE has D somewhere about 2e-5 up to 1GHz, the loss model for RG58CU (PE dielectric) indicates D of 2e-3, much much worse than would be expected from D of the PE dielectric alone.

Any thoughts. Is there an inconsistency between the explanation that G is principally due to D of the dielectric material, or I have I messed the maths up?

Owen
--

2162. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-06-30 23:36:51 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <rm%we.13532$2S.2872@fe03.lga>
Source record: 73928
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

"Tom Ring" <news0002@taring.org> wrote in message
news:42c460a3$0$32198$39cecf19@news.twtelecom.net...
> Walter Maxwell wrote:
>> Reading the mail appearing in this thread is more fun than watching Saturday
>> Night Live!
>>
>> Walt, W2DU
>
> Some of the people involved appear to be listening from inside Faraday Cages!
>
> tom
> K0TAR

Faraday used the cages after the monkeys were through with them. The monkeys
left them so fouled up that EM waves couldn't penetrate the walls.

Walt, W2DU

2163. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 00:16:44 UTC
From: Owen <owen@no.where>
Message-ID: <4o29c1t14v38kgd5e9b7sftu7b17bodvu8@4ax.com>
Source record: 73929

On Thu, 30 Jun 2005 22:46:39 GMT, Owen <owen@no.where> wrote:

>alpha= 0.5*R/NomZo+0.5*G.NomZo
>It also seems generally accepted that Matched Line Loss (MLL) can be
>modeled well by the expression MLL=k1*f**0.5+k2*f.
>
>(Remember that alpha= 0.5*R/NomZo+0.5*G.NomZo)

Sorry, I mixed the notation using . for multiply operator instead of
*.

the first quoted line should have been deleted, and the second should
read:

(Remember that alpha= 0.5*R/NomZo+0.5*G*NomZo)

--

2164. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 00:36:13 UTC
From: HF706 <HF706@yahoo.com>
Message-ID: <1120178173.488687.160210@f14g2000cwb.googlegroups.com>
Source record: 73930

Dan:

I cannot thank you enough for taking the time to scan and post this article. It is almost impossible to find articles that old that are still legible. This is an example of the spirit of HAM radio.

Have a great 4th of July holiday.

73, Lew

2165. Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 00:51:10 UTC
From: Mark <kj7bs@cox.net>
Message-ID: <Cs0xe.14415$ro.8260@fed1read02>
Source record: 73931

Here is an additional question.

I have to mount my 40/80 vertical in a place where it can be hidden by trees, which means against the back fence in my yard. I can only put radials to cover 180 degrees. I assume my signal will radiate best in that direction. What kind of radiation will I get toward the side of the antenna without the radials?

Mark, KJ7BS

2166. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 00:58:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <880e6$42c4952f$97d55b49$8221@ALLTEL.NET>
Source record: 73932

RF
"Mark" <kj7bs@cox.net> wrote in message
news:Cs0xe.14415$ro.8260@fed1read02...
> Here is an additional question.
>
> I have to mount my 40/80 vertical in a place where it can be hidden by
> trees, which means against the back fence in my yard. I can only put
> radials to cover 180 degrees. I assume my signal will radiate best in
that
> direction. What kind of radiation will I get toward the side of the
antenna
> without the radials?
>
> Mark, KJ7BS
>
>

2167. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 01:05:29 UTC
From: richardharrison@webtv.net
Message-ID: <14306-42C496D9-252@storefull-3253.bay.webtv.net>
Source record: 73933

Cecil. W5DXP wrote:
"A 1/2-wavelength of transmission line reverses the phase of the
current, certainly a 180 degree "transformation"."

Yes. One of the baluns in the ARRL Antenna Book uses an extra180-degrees
of 75-ohm coax to drive an element in a 300-ohm balanced antenna from an
unbalanced 75-ohm aource.

Best regards, Richard Harrison, KB5WZI

2168. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 01:42:08 UTC
From: Larry Benko <lbenko@comcast.net>
Message-ID: <5LKdndjiyKqwAInfRVn-hw@comcast.com>
Source record: 73934

Mark,

This month's edition of QEX (July/Aug. 2005) has an article addressing your question with a simulation matching your question exactly. Bottom line: put as many radials as long as possible in your yard and don't worry about it. The simulation with 60 1/4 wavelength radials in a 180 degree arc only resulted in a 1.67dB difference in signal strengths from the radial direction to the no radial direction.

73,
Larry, W0QE

Mark wrote:
> Here is an additional question.
>
> I have to mount my 40/80 vertical in a place where it can be hidden by
> trees, which means against the back fence in my yard. I can only put
> radials to cover 180 degrees. I assume my signal will radiate best in that
> direction. What kind of radiation will I get toward the side of the antenna
> without the radials?
>
> Mark, KJ7BS
>
>

2169. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 01:43:53 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42c49fda$0$32206$39cecf19@news.twtelecom.net>
Source record: 73935

Richard Harrison wrote:

> Yes. One of the baluns in the ARRL Antenna Book uses an extra180-degrees
> of 75-ohm coax to drive an element in a 300-ohm balanced antenna from an
> unbalanced 75-ohm aource.
>
> Best regards, Richard Harrison, KB5WZI
>

A standard in the VHF and up world; it is used in the T-match.

Question - has anyone ever done any analysis or testing of what happens
to a T-match when run off the center frequency of the balun?

tom
K0TAR

2170. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 02:05:47 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <iu89c1t55ch95n4e0t49ek908akmr37erk@4ax.com>
Source record: 73936

On Thu, 30 Jun 2005 20:43:53 -0500, Tom Ring <news0002@taring.org>
wrote:

>Richard Harrison wrote:
>
>> Yes. One of the baluns in the ARRL Antenna Book uses an extra180-degrees
>> of 75-ohm coax to drive an element in a 300-ohm balanced antenna from an
>> unbalanced 75-ohm aource.
>>
>> Best regards, Richard Harrison, KB5WZI
>>
>
>A standard in the VHF and up world; it is used in the T-match.
>
>Question - has anyone ever done any analysis or testing of what happens
>to a T-match when run off the center frequency of the balun?

Your question is not clear. Are you asking about tee-match performance
or balun performance?

There has been an examination of the balun performance.

"The Half-Wave Balun: theory and application", J Nagle, K4KJ, ham
radio magazine, Sept 1980 pp 32-35

2171. Re: "Food for thought: Forward and reverse power" comments

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 02:20:39 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42c4a877$0$22200$39cecf19@news.twtelecom.net>
Source record: 73937

Wes Stewart wrote:

>>A standard in the VHF and up world; it is used in the T-match.
>>
>>Question - has anyone ever done any analysis or testing of what happens
>>to a T-match when run off the center frequency of the balun?
>
>
> Your question is not clear. Are you asking about tee-match performance
> or balun performance?
>
> There has been an examination of the balun performance.
>
> "The Half-Wave Balun: theory and application", J Nagle, K4KJ, ham
> radio magazine, Sept 1980 pp 32-35
>
>

Sorry, I thought it was clear. The T-match, which has the balun as a
part. The balun was mentioned as the reference point for the center
frequency.

tom
K0TAR

2172. Re: wireless headphones

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 02:27:17 UTC
From: Jeff Maass <jmaass@columbus.rr.com>
Message-ID: <9S1xe.27411$7X1.11841@tornado.ohiordc.rr.com>
Source record: 73938

Stand on top of a tower.

"Bob" <cdumas1@columbus.rr.com> wrote in message
news:TgWwe.29046$IL3.14685@tornado.ohiordc.rr.com...
> Is there a way to increase the range of a sennheiser wireless headphones
> modle rs45?
>
>

2173. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 04:07:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11c9gbor38jn1da@corp.supernews.com>
Source record: 73939

I saw this apparent discrepancy many years ago, and wondered the same thing. I've come to believe that the extra loss is due to the braided shield, not some unknown additional dielectric loss. There's very little quantitative information about that loss mechanism, but from time to time I've come across comments that it can be substantial.

Roy Lewallen, W7EL

Owen wrote:
> I am trying to reconcile the following in respect of for practical low
> loss RF transmission lines:
>
> In the RLGC model for Zo and gamma, it is generally accepted a good
> approximation is that R=c1*f**0.5, G=c2*f, and L and C are constant.
>
> If the term (G+j*2*pi*f*C) can be rearranged as
> (2*pi*f*C(G/(2*pi*f*C)+j)), and substituting c2*f for G, written as
> (2*pi*f*C(c2/(2*pi*C)+j)).
>
> If we regard G to be principally the loss in the dielectric , then
> c2/(2*pi*C) should give us the dielectric loss factor, D, 1/Q,
> tan(delta), dissipation factor, power factor, whatever you want to
> call it.
>
> alpha= 0.5*R/NomZo+0.5*G.NomZo
> It also seems generally accepted that Matched Line Loss (MLL) can be
> modeled well by the expression MLL=k1*f**0.5+k2*f.
>
> (Remember that alpha= 0.5*R/NomZo+0.5*G.NomZo)
>
> It follows then that c2=k2/(10*log(e)*Ro), and that (G+j*2*pi*f*C)=
> 2*pi*f*C(k2/(10*log(e)*Ro)/(2*pi*C)+j) which implies that D is
> k2/(10*log(e)*Ro)/(2*pi*C).
>
> Problem is, that whilst PE has D somewhere about 2e-5 up to 1GHz, the
> loss model for RG58CU (PE dielectric) indicates D of 2e-3, much much
> worse than would be expected from D of the PE dielectric alone.
>
> Any thoughts. Is there an inconsistency between the explanation that G
> is principally due to D of the dielectric material, or I have I messed
> the maths up?
>
> Owen
> --

2174. Re: wireless headphones

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 04:14:03 UTC
From: Bob <cdumas1@columbus.rr.com>
Message-ID: <fq3xe.34376$pU.11815@tornado.ohiordc.rr.com>
Source record: 73940

```
thanks alot
"Jeff Maass" <jmaass@columbus.rr.com> wrote in message
news:9S1xe.27411$7X1.11841@tornado.ohiordc.rr.com...
>
> Stand on top of a tower.
>
>
> "Bob" <cdumas1@columbus.rr.com> wrote in message
> news:TgWwe.29046$IL3.14685@tornado.ohiordc.rr.com...
>> Is there a way to increase the range of a sennheiser wireless headphones
>> modle rs45?
>>
>>
>
>
```

2175. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 04:30:00 UTC
From: Owen <owen@no.where>
Message-ID: <dug9c1tvsn6rc4gr2m5e83pdd8aikkjdh5@4ax.com>
Source record: 73941

On Thu, 30 Jun 2005 21:07:20 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I saw this apparent discrepancy many years ago, and wondered the same
>thing. I've come to believe that the extra loss is due to the braided
>shield, not some unknown additional dielectric loss. There's very little
>quantitative information about that loss mechanism, but from time to
>time I've come across comments that it can be substantial.

Roy,

I thought about the effects of through braid loss. I guess any loss
that increases proportionately to f will be captured in the loss model
and allocated against k2.

Below are k2 factors for a few cables of interest. The first three use
PE dielectic, and there is a big difference between RG58 and RG213
where the dimesions of the dielectric are quite different. A small
difference between RG213 and RG214 with similar dielectric size, but
214 has double braiding, suggesting that braid loss / leakage may one
of the factors.

Belden 8262 (RG58C/U) 2.95e-10
Belden 8267 (RG213) 8.23e-11
Belden 8268 (RG214) 7.17e-11

The next bunch don't use braid, but use a corrugated solid outer
conductor. Not a dramatic change in k2 considering how much larger
6-50 is compared to 4-50.

LDF4-50 6.15e-12
LDF6-50 4.60e-12

Could the distribution of the electric field intensity in the
dielectric be a factor, will the dielectric exposed to the highest
field intensity dissipate the most power?

Owen

--

2176. Re: SWR - wtf?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 04:30:33 UTC
From: Scott in Baltimore <scott_unit_69@yapoo.com>
Message-ID: <42C4C6E9.DBDB776D@yapoo.com>
Source record: 73942
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

> >But I specifically stated above the Z0 environment was different
> >from 50 ohms. The same type of error happens when one uses a
> >50 ohm SWR meter in a 75 ohm coaxial line.
>
> If that were true then the mere existence of standing waves could
> render any measurements worthless. Regardless, I did the experiment a
> long time ago -- take a 50 ohm SWR meter and plug it into a 75 ohm
> line -- it gives you almost the same measurement (in fact, I didn't
> see -any- difference at all). Any small error you might see is, as I
> said before, insignificant, especially considering the reason you are
> measuring SWR in the first place. The objective is simply to get the
> reading as low as practially possible. If you feel the need to quibble
> about a couple tenths of a point on a ratio then maybe you're spending
> a little too much time playing with the calculator instead of the
> antenna.

I'm running RG-6 out to my 2 meter antenna. I put my cheap RS HF meter inline to see what I'd read. I got my expected 1.5:1. Wattage read 1/2 of what the radio is rated for. It gets out and I'm not worried about it.

2177. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 04:37:12 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <YL3xe.5009$RC6.1256@newssvr33.news.prodigy.com>
Source record: 73943

Mark,
Good question! There will be ~some~ gain/loss of signal in
various directions. Probably won't be much gain or loss,
just depends on 'other' things (how near the fence, fence made
of wood/metal, and other mysterious things). Wouldn't worry
too much about it, and if it really bothers you, sneak a radial
or two under the fence for a ways. Hide it well and don't get
caught running stuff in your neighbor's yard!
'Doc

2178. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 04:54:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <da2iabmvd1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73944

"Owen"
> Any thoughts. Is there an inconsistency between the explanation that
G
> is principally due to D of the dielectric material, or I have I
messed
> the maths up?
>
> Owen
==========

From where did you obtain D 2e-3 for RG 58 ? That's the most likely source of the discrepancy.

Also the highest grade polyethylene is unlikely to be used for the manufacture of RG58.

The only way to investigate is to lay 100 feet on the ground, in the form of a circle, and measure attenuation vs frequency between the ends from 1 MHz to 1 GHz.

Reg

2179. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 05:14:36 UTC
From: Owen <owen@no.where>
Message-ID: <nuj9c1ta9imfgdg6df0921l56k0382tgmi@4ax.com>
Source record: 73945

On Fri, 1 Jul 2005 04:54:35 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Owen"
>> Any thoughts. Is there an inconsistency between the explanation that
>G
>> is principally due to D of the dielectric material, or I have I
>messed
>> the maths up?
>>
>> Owen
>==================================
>
>From where did you obtain D 2e-3 for RG 58 ? That's the most likely
>source of the discrepancy.
>
>Also the highest grade polyethylene is unlikely to be used for the
>manufacture of RG58.
>
>The only way to investigate is to lay 100 feet on the ground, in the
>form of a circle, and measure attenuation vs frequency between the
>ends from 1 MHz to 1 GHz.

I took the figures published by Belden for their 8262 cable at
frequencies from 1MHx to 1Gz (9 points) and did a polynomial
regression to MLL=k1*f**0.5+k2*f, then substituted k2 into the
expression described in my original post.

I didn't measure the losses, and I recognise that Belden might have
smoothed their results by an intermediate regression, but I figure
that they are not going to exaggerate the effect of k2 unnecessarily.

Owen

--

2180. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 05:47:21 UTC
From: luke <Luke@theforce.com>
Message-ID: <42C4D8E7.8E99D9B2@theforce.com>
Source record: 73946

hi james,

Save your money, you can build this one for under $ 10,
even less if you have some 1/2 " pvc and #12 thhn wire
in the shop !

http://www.cebik.com/moxon/6m.html

Moxon for 6m, use it vertical for FM/Repeaters
or horizontal for ssb and cw.

Smaller then a 2 element yagi but almost the same gain !

73 luke

"James F. Mayer" wrote:

> What is a good commercially available antenna for 6 meters. I have an
> RT-70A/GRC that I'm getting ready to power up in a couple of weeks. Would
> my discone suffice?

2181. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 06:32:54 UTC
From: Mark <kj7bs@cox.net>
Message-ID: <vs5xe.14480$ro.12687@fed1read02>
Source record: 73947

Thanks for the input. I will check out the QEX article.

The fence is block and my "neighbor's yard" is a horse exercise pasture.
The horse farm behind me breeds and trains race horses.

Mark, KJ7BS

"'Doc" <w5lz@cwis.net> wrote in message
news:YL3xe.5009$RC6.1256@newssvr33.news.prodigy.com...
> Mark,
> Good question! There will be ~some~ gain/loss of signal in
> various directions. Probably won't be much gain or loss,
> just depends on 'other' things (how near the fence, fence made
> of wood/metal, and other mysterious things). Wouldn't worry
> too much about it, and if it really bothers you, sneak a radial
> or two under the fence for a ways. Hide it well and don't get
> caught running stuff in your neighbor's yard!
> 'Doc

2182. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 07:08:06 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120201685.960902.270000@g43g2000cwa.googlegroups.com>
Source record: 73948

My reference suggests that D for PE is 2e-4, but even at that, the copper loss would be ten times the dielectric loss out to 2GHz, if I figured it right. It could be difficult to accurately determine your k2 with such a small contribution from the dielectric. But there are likely other mechanisms at work...

Roy mentioned the braid. I recall reading a nice article by, I believe, an engineer with Andrew talking about various loss mechanisms in coax due to things like braid and stranded inner conductor and surface smoothness. The article went well beyond the usual theoretical discussion that assumes smooth conductors and perfectly uniform construction. I wish I could locate it again! I thought it was in "RF Design" magazine, but never could find it again there, so perhaps it was in "Electronic Design" or "EDN".

One mechanism to consider is the effects of a non-constant Zo as a function of distance along the line. There are undoubtedly small variations in the manufacturing process. Over a length of line that's many wavelengths long, even small variations make a noticable difference. It's not a dissipative mechanism, per se, but will show up as line attenuation if you put the line on a network analyzer. Small, flexible lines that are guaranteed to a close tolerance on impedance are quite expensive.

I don't claim to have any definitive answers for this one, but hope my comments give you some ideas where to look.

Cheers,
Tom

2183. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 08:34:53 UTC
From: jcooper874@webtv.net
Message-ID: <512-42C5002D-397@storefull-3274.bay.webtv.net>
Source record: 73949

i bet the moxon will make a good tv antenna

2184. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 09:25:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ca30a2op8obba@corp.supernews.com>
Source record: 73950

Owen wrote:
>
> I took the figures published by Belden for their 8262 cable at
> frequencies from 1MHx to 1Gz (9 points) and did a polynomial
> regression to MLL=k1*f**0.5+k2*f, then substituted k2 into the
> expression described in my original post.
>
> I didn't measure the losses, and I recognise that Belden might have
> smoothed their results by an intermediate regression, but I figure
> that they are not going to exaggerate the effect of k2 unnecessarily.

I didn't realize that was the source of your loss figures. Reg is right, you have to measure it. Another thing I found long ago is that the published specs don't match reality. I recall finding Belden to be conservative with loss, but that sure isn't the case with some others. I just had occasion to very carefully measure the loss of some Davis RF "Bury-Flex" which they specify as having 2.9 dB/100' at 400 MHz. It was 4.1 dB/100' at 400 MHz and extrapolated very nicely to at least 3.5 MHz with a square root rule. (It has a solid aluminum shield under the copper.) So there's some real specsmanship going on out there.

Roy Lewallen, W7EL

2185. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 09:29:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ca37rthiqui46@corp.supernews.com>
Source record: 73951

One other thing I did long ago was to check some semi-rigid lines with solid shield and center conductor and PTFE dielectric, against theoretical calculations. As I recall, the agreement was pretty good -- much better than the garden variety coax.

And by the way, you'll see a noticeable difference in loss between RG-58, which has a solid copper center conductor, and RG-58A which is tinned -- as you'd expect.

Roy Lewallen, W7EL

K7ITM wrote:
> My reference suggests that D for PE is 2e-4, but even at that, the
> copper loss would be ten times the dielectric loss out to 2GHz, if I
> figured it right. It could be difficult to accurately determine your
> k2 with such a small contribution from the dielectric. But there are
> likely other mechanisms at work...
>
> Roy mentioned the braid. I recall reading a nice article by, I
> believe, an engineer with Andrew talking about various loss mechanisms
> in coax due to things like braid and stranded inner conductor and
> surface smoothness. The article went well beyond the usual theoretical
> discussion that assumes smooth conductors and perfectly uniform
> construction. I wish I could locate it again! I thought it was in "RF
> Design" magazine, but never could find it again there, so perhaps it
> was in "Electronic Design" or "EDN".
>
> One mechanism to consider is the effects of a non-constant Zo as a
> function of distance along the line. There are undoubtedly small
> variations in the manufacturing process. Over a length of line that's
> many wavelengths long, even small variations make a noticable
> difference. It's not a dissipative mechanism, per se, but will show up
> as line attenuation if you put the line on a network analyzer. Small,
> flexible lines that are guaranteed to a close tolerance on impedance
> are quite expensive.
>
> I don't claim to have any definitive answers for this one, but hope my
> comments give you some ideas where to look.
>
> Cheers,
> Tom
>

2186. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 09:35:24 UTC
From: Ian White GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <0yJ9yqMc5QxCFAvS@ifwtech.co.uk>
Source record: 73952

Mark wrote:
>Thanks for the input. I will check out the QEX article.
>
>The fence is block and my "neighbor's yard" is a horse exercise
>pasture. The horse farm behind me breeds and trains race horses.
>
A friend has just buried a large amount of chicken-wire under the surface of his wife's new horse-schooling area, so it can double as his antenna testing range.

You might at least be able to persuade your neighbor to let you slot in a few radials with a spade.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2187. Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 10:26:27 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <42c5265f@news.iconz.co.nz>
Source record: 73953

Hi All,

I have just built a 20m dipole as a temp antenna for home.
I will be driving it with a TS-830 transceiver, which uses valves in the final stage.
I know that I can only use it close to the cut frequency, but want to build a small tuner to allow me to go off the cut slightly.
I only want the tuner to be used on 20m, so I do not need any coil tapings for switching bands, so maybe a couple of caps will do the job.

Look forward to any replies.

Regards

Kevin, ZL1KFM.

2188. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 10:44:08 UTC
From: Jim <K4SQR@juno.com>
Message-ID: <1120214648.430664.131670@g47g2000cwa.googlegroups.com>
Source record: 73954

Kevin,
Since the 830s uses valves (tubes on this end) no tuner is necessary.
Simply adjust plate and load or tune and load if moving more than 50
Khz.
I never required a tuner with my TS-820S.
Regards,
Jim, K4SQR

Kevin & Natalia wrote:
> Hi All,
>
> I have just built a 20m dipole as a temp antenna for home.
> I will be driving it with a TS-830 transceiver, which uses valves in the
> final stage.
> I know that I can only use it close to the cut frequency, but want to build
> a small tuner to allow me to go off the cut slightly.
> I only want the tuner to be used on 20m, so I do not need any coil tapings
> for switching bands, so maybe a couple of caps will do the job.
>
> Look forward to any replies.
>
> Regards
>
> Kevin, ZL1KFM.

2189. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 11:48:19 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42c52cb7.5297136@news.crosslink.net>
Source record: 73955

On Thu, 30 Jun 2005 12:57:02 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>It would be interesting to find out who, among the
>experts on this group, cannot solve this problem
>for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
>Vref2, Iref2 including magnitudes and phase
>angles.
>
>Given: a Z0-match at an impedance discontinuity in
>a transmission line. Source is unknown. Load is
>unknown. Lengths of transmission lines are unknown.
>Reference phase: Vfwd1 is incident upon the Z0-match
>at a reference phase angle of zero degrees.
>
>---50 ohm feedline---+---200 ohm feedline---
> Pfwd1=100w--> Pfwd2=156.25w-->
> <--Pref1=0w <--Pref2=56.25w
>
>Contrary to what some people assert, is it possible
>to calculate the magnitudes and phases of the
>above voltages and currents knowing only the
>Z0's and the forward and reflected powers?

You probably won't find many people who would even recognize how to
approach the problem.

But there will be 10X that many who feel free to tell you why they
think the whole thing is nonsense. What do you suppose that syndrome
should be called - "burying one's head in the sand?"

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2190. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 12:20:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c53602$1_1@spool9-west.superfeed.net>
Source record: 73956

Kevin & Natalia wrote:
> Hi All,
>
> I have just built a 20m dipole as a temp antenna for home.
> I will be driving it with a TS-830 transceiver, which uses valves in the
> final stage.
> I know that I can only use it close to the cut frequency, but want to build
> a small tuner to allow me to go off the cut slightly.
> I only want the tuner to be used on 20m, so I do not need any coil tapings
> for switching bands, so maybe a couple of caps will do the job.
>
> Look forward to any replies. Regards Kevin, ZL1KFM.

Hi Kevin, feed it with 450 ohm ladder-line. Make the ladder-line
length an integer number of 1/2 wavelengths. Then you can tune
your antenna system to resonance without a tuner by adding one
foot of ladder-line for lower frequency operation and subtracting
one foot for higher frequency operation. Varying the length of
the ladder-line by 0, 1, or 2 feet should cover the entire 20m
band. My resonant frequencies are 0' = 14.34 MHz; 1' = 14.2 MHz;
2' = 14.1 MHz. Of course, it doesn't have to be in one foot
increments. 35 cm increments might be better. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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2191. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 12:35:37 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <tMaxe.13917$zp6.8315@trnddc08>
Source record: 73957

"Kevin & Natalia" <sparc_man@hotmail.com> wrote in message
news:42c5265f@news.iconz.co.nz...
> Hi All,
>
> I have just built a 20m dipole as a temp antenna for home.
> I will be driving it with a TS-830 transceiver, which uses valves in the
> final stage.
> I know that I can only use it close to the cut frequency, but want to
build
> a small tuner to allow me to go off the cut slightly.
> I only want the tuner to be used on 20m, so I do not need any coil tapings
> for switching bands, so maybe a couple of caps will do the job.
>
> Look forward to any replies.
>
> Regards
>
> Kevin, ZL1KFM.
>
> Hi Kevin,
The 830 already has a tuner built into it- the Pi network output circuit.
When you go through the tune/load procedure you are marching the 830's
output to the load. To put another tuner on the output would be redundant.

Dale W4OP

2192. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 12:45:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c53be5$1_1@spool9-west.superfeed.net>
Source record: 73958

W9DMK (Robert Lay) wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>It would be interesting to find out who, among the
>>experts on this group, cannot solve this problem
>>for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
>>Vref2, Iref2 including magnitudes and phase
>>angles.
>>
>>Given: a Z0-match at an impedance discontinuity in
>>a transmission line. Source is unknown. Load is
>>unknown. Lengths of transmission lines are unknown.
>>Reference phase: Vfwd1 is incident upon the Z0-match
>>at a reference phase angle of zero degrees.
>>
>>---50 ohm feedline---+---200 ohm feedline---
>> Pfwd1=100w--> Pfwd2=156.25w-->
>> <--Pref1=0w <--Pref2=56.25w
>>
>>Contrary to what some people assert, is it possible
>>to calculate the magnitudes and phases of the
>>above voltages and currents knowing only the
>>Z0's and the forward and reflected powers?
>
> You probably won't find many people who would even recognize how to
> approach the problem.

The ones who assert that it is impossible can't even afford to
try. If they can't solve it, they look ignorant. If they solve
it, they lose the argument about it being impossible to solve.

Incidentally, I made it easier than necessary. Pfwd2 doesn't
have to be given. The joules/sec into a lossless impedance
discontinuity have to equal the joules/sec out so if three
of the above four joules/sec values are known, the fourth
can be calculated.

> But there will be 10X that many who feel free to tell you why they
> think the whole thing is nonsense. What do you suppose that syndrome
> should be called - "burying one's head in the sand?"

How about "burying one's head where the sun don't shine"? :-)
(Sorry, the devil made me say that.)

I find it interesting that the people who say they don't
care where the energy goes respond with a gut feeling and

ad hominem attack when anyone mentions the subject. If
physicists can track a single photon, surely we hams can
track the energy in EM waves.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2193. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 13:08:46 UTC
From: Dan Richardson <k6mhe>
Message-ID: <jufac1dp0hbu92406ltgm2lol6ppaikhad@4ax.com>
Source record: 73959

On Fri, 1 Jul 2005 22:26:27 +1200, "Kevin & Natalia"
<sparc_man@hotmail.com> wrote:

>Hi All,
>
>I have just built a 20m dipole as a temp antenna for home.
>I will be driving it with a TS-830 transceiver, which uses valves in the
>final stage.
>I know that I can only use it close to the cut frequency, but want to build
>a small tuner to allow me to go off the cut slightly.
>I only want the tuner to be used on 20m, so I do not need any coil tapings
>for switching bands, so maybe a couple of caps will do the job.
>
>Look forward to any replies.
>
>Regards
>
>Kevin, ZL1KFM.
>

The pi-network tuning range of the TS-850 (I had owned one at one
time) is capable of tuning the entire 20-meter band on your setup.
Don't worry about it.

73,
Danny, K6MHE

2194. Mosley Pro57A Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 14:23:11 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <oakac159fbo2fd17aksoh6ukm8u32j3v6o@4ax.com>
Source record: 73960

Mosley Pro 57A HF Beam, 5 Band 20-10 Meters 8.5 dbd 20-12M, 9.4 dbd on 10M, w/ 24 Ft. Boom. Ready for pickup, on the ground. $ 50.00/ OBO Pickup Southeast Virginia. k4wys@cox.net

2195. FS/Pickup Rohn 25G

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 14:26:14 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <1gkac1pi8hq9e321j7lovqtdrqs7rapv1r@4ax.com>
Source record: 73961

60 Ft. Rohn 25G Tower (5-10 FT. sections & 1-9 Ft. Top section w/ AS25 Rotor Plate) very good condition NO RUST. [Plus a 48" Section for concrete base install] All is on the ground ready for pickup. $250.00 Pickup Southeast Virginia k4wys@cox.net

2196. Rohn House Bracket

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 14:28:11 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <okkac11ap7j5ldhcstsbh41mm93p948gmn@4ax.com>
Source record: 73962

HB25GA House Bracket for Rohn 25G tower (ready for pickup) $ 25.00
Pickup Southeast Virginia. k4wys@cox.net

2197. Re: FS/Pickup Rohn 25G

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 15:18:41 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c55fe8$1_2@spool9-west.superfeed.net>
Source record: 73963

Sonny Hood wrote:
> 60 Ft. Rohn 25G Tower (5-10 FT. sections & 1-9 Ft. Top section w/ AS25
> Rotor Plate) very good condition NO RUST. [Plus a 48" Section for
> concrete base install] All is on the ground ready for pickup.
> $250.00 Pickup Southeast Virginia k4wys@cox.net

30 ft. Rohn 25G free for pickup one mile from I45 off
TX Hwy 21 in Madisonville, TX. Email if interested.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2198. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 15:24:28 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8da9d$42c5602f$97d55b49$8400@ALLTEL.NET>
Source record: 73964

Bet it won't, unless your only interested in 1 channel or are in an area of
vary strong signals where it dosn't matter what you use.

<jcooper874@webtv.net> wrote in message
news:512-42C5002D-397@storefull-3274.bay.webtv.net...
> i bet the moxon will make a good tv antenna
>

2199. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 15:36:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8900a$42c59cef$97d55b49$22714@ALLTEL.NET>
Source record: 73967

How about just a couple of relays? If you have some 300 ohm or 450 ohm feedline available, I can give you a simple solution. E-mail me at w4jle@w4jle.com

"Kevin & Natalia" <sparc_man@hotmail.com> wrote in message news:42c5265f@news.iconz.co.nz...
> Hi All,
>
> I have just built a 20m dipole as a temp antenna for home.
> I will be driving it with a TS-830 transceiver, which uses valves in the
> final stage.
> I know that I can only use it close to the cut frequency, but want to build
> a small tuner to allow me to go off the cut slightly.
> I only want the tuner to be used on 20m, so I do not need any coil tapings
> for switching bands, so maybe a couple of caps will do the job.
>
> Look forward to any replies.
>
> Regards
>
> Kevin, ZL1KFM.
>
>

2200. Re: Correct cable for 920Mhz Mobile, Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 16:28:10 UTC
From: Bob Dixon <dixon.8@osu.edu>
Message-ID: <dixon.8-69FA77.12280901072005@charm.magnus.acs.ohio-state.edu>
Source record: 73965

Could you provide any references to the successful use of passive
repeaters? I tried it once and it was a flop.

Bob W8ERD

In article <1dIwe.5942$ho.5388@bignews6.bellsouth.net>,
"Hal Rosser" <hmrosser@bellsouth.net> wrote:

> Remember, the high gain antenna will have a narrow beam,
> The phone companies have used passive repeaters with good success.
>
>
> "Mark" <Mark@> wrote in message
> news:0op0c1d8g1l9d4nku27v1nt8oroal2i1u1@4ax.com...
> > On Sat, 25 Jun 2005 17:40:50 -0400, "Hal Rosser"
> > <hmrosser@bellsouth.net> wrote:
> >
> > >This may well be an application for a passive repeater.
> > >2 yagis back to back
> > >one aimed at the nearest tower
> > >the other aimed at your house.
> > >mount it high
> >
> > That sounds like a good idea, should I mount the antenna's at a 90o
> > angle relative to each other, with the receiving antenna mounted to
> > look in the vertical plane (I know where the base station is). And the
> > transmitting antenna to give as much horizontal plane coverage as
> > possible, angled down to the areas I wish to receive telephone
> > coverage? Can I expect good results?

2201. Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 19:26:56 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <el5bc1hseukbfhdrgn1mjf5hlnp5feojue@4ax.com>
Source record: 73966

I have a Cushcraft A3 beam on a crank up/tilt over tower. When I tilt it over, it still requires a ladder to work on it due to the length of the elements.

What I would like to do is to be able to rotate it as though I were trying for vertical polarization before or during the tilt over process. That would bring the antenna to a "flat" attitude for maintenance and storm protection.

Any thoughts? The usual old fashioned Ham parameters apply: Little cost as possible, build as much as I can my self, etc......

BTW, I have several good TV rotators I might use, but none with a hole all the way through!

de W8CCW

2202. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 20:16:47 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Swhxe.3456$iv3.2526@fe02.lga>
Source record: 73968

(I have tried unsuccessfully to make the tabular data in the msg below come out correctly. I apologize for that and hope you can interpret the data successfully. Walt,W2DU)

Thanks to Richard Harrison, he has supplied us with the renowned Brown, Lewis and Epstein paper, reporting the voluminous and enlightening experimental data concerning the length and number of ground radials required in approaching the condition of perfect ground underneath a vertical radiator. This paper has long been well known and highly respected in the communications engineering community, and since 1938 has become the standard for engineering the radial systems for AM BC stations Worldwide. The FCC requirement for radials in US BC stations is based on data in the BLE paper.

The tragedy here is that BLE paper has gone practically unknown in the amateur community, as witnessed by so many continual questions and incorrect answers concerning the length and number of radials required to achieve the desired performance of our vertical radiators.

So let me present a short, but definitive abstract of the pertinent numbers taken from the paper, that answer some of the pertinent questions correctly.

As a reference on which to base the radiated field strength, the industry standard has traditionally used millivolts per meter to describe field strength. Specifically, the field strength of 194.5 millivolts per meter at one mile, radiated from a quarter-wavelength radiator over perfect ground with 1000 watts input, is the industry standard. In other words, this field strength is the maximum attainable under ideal conditions. The data below, obtained directly from measurements made at 3 MHz by Brown, Lewis and Epstein in 1937, provide definitive answers to those who ask how many radials of what length are necessary to provide a suitable ground plane. When comparing the fields strengths below, remember that 194.5 mv/meter is the field strength obtained with perfect lossless ground.

Number of Field Strength Loss in dB Relative

Radials in mv/meter to Perfect Ground

Length Length

0.4 wl 1/4 wl 1/8 wl 0.4 wl 1/4 wl 1/8 wl

113 192 180 152 0.112 0.673 2.14

60 185 176 150 0.435 0.868 2.26

30 174 162 150 0.967 1.59 2.26

15 158 153 1.81 2.08

2 126 120 118 3.77 4.19 4.39

When reviewing these data, please keep in mind that as the field strength approaches 194.5 mv/meter the effective ground is approaching perfect ground, which means that the conductivity of the ground in which the radials are planted is irrelevant, only the ground external to the radial system is relevant with respect to conductivity.

It should also be kept in mind that the energy in the EM fields surrounding the vertical radiator diminishes with distance from the radiator. Thus the displacement currents entering the ground diminish proportionately with distance. Consequently, there is a distance from the radiator after which the currents become too small to be significant to the conservation of power radiated. This fact determines the maximum length of the radials necessary to reach the point where the law of diminishing returns prevails. The measurements reported in the BLE paper show this distance to be between 0.4 and 0.5 wavelengths. As noted above, this distance is relative to the amount of energy in the displacement currents at this distance from the radiator, and is in no way relevant to any resonant length of the radial. It is well known that radials buried in the ground lose all sense of resonance.

Walt, W2DU

2203. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 20:33:52 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1120250032.104926.109260@g14g2000cwa.googlegroups.com>
Source record: 73970

Hi Cecil,

I've just been ignoring it till now, to see what sort of raging
arguments would start. But is it supposed to be difficult??

Cheers,
Tom

2204. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 20:34:08 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <7Nhxe.3458$iv3.990@fe02.lga>
Source record: 73969

I have read Al Christman's QEX article, and though he mentions radial systems used in AM BC stations, I doubt if he's read Brown, Lewis and Epstein, else I also doubt if he would have made some of the statements that appear in the article

The Brown, Lewis and Epstein paper is a must read for anyone contemplating the installation of radials for a vertical radiator. Fortunately, Richard Harrison has supplied the paper in the thread below 'Brown Lewis and Epstein'.

My post below has also been added to the above mentioned thread. However, I apologize for the problem in making the tabular data come out right--I tried, but was unsuccessful, so I hope you can interpret the data to be useful to you. Now to the mail I posted in the above mentioned thread. Walt,W2DU

Thanks to Richard Harrison, he has supplied us with the renowned Brown, Lewis and Epstein paper, reporting the voluminous and enlightening experimental data concerning the length and number of ground radials required in approaching the condition of perfect ground underneath a vertical radiator. This paper has long been well known and highly respected in the communications engineering community, and since 1938 has become the standard for engineering the radial systems for AM BC stations Worldwide. The FCC requirement for radials in US BC stations is based on data in the BLE paper.

The tragedy here is that BLE paper has gone practically unknown in the amateur community, as witnessed by so many continual questions and incorrect answers concerning the length and number of radials required to achieve the desired performance of our vertical radiators.

So let me present a short, but definitive abstract of the pertinent numbers taken from the paper, that answer some of the pertinent questions correctly.

As a reference on which to base the radiated field strength, the industry standard has traditionally used millivolts per meter to describe field strength. Specifically, the field strength of 194.5 millivolts per meter at one mile, radiated from a quarter-wavelength radiator over perfect ground with 1000 watts input, is the industry standard. In other words, this field strength is the maximum attainable under ideal conditions. The data below, obtained directly from measurements made at 3 MHz by Brown, Lewis and Epstein in 1937, provide definitive answers to those who ask how many radials of what length are necessary to provide a suitable ground plane. When comparing the fields strengths below, remember that 194.5 mv/meter is the field strength obtained with perfect lossless ground.

Number of Field Strength Loss in dB Relative

Radials in mv/meter to Perfect Ground

Length Length

0.4 wl 1/4 wl 1/8 wl 0.4 wl 1/4 wl 1/8 wl

113 192 180 152 0.112 0.673 2.14

60 185 176 150 0.435 0.868 2.26

30 174 162 150 0.967 1.59 2.26

15 158 153 1.81 2.08

2 126 120 118 3.77 4.19 4.39

When reviewing these data, please keep in mind that as the field strength approaches 194.5 mv/meter the effective ground is approaching perfect ground, which means that the conductivity of the ground in which the radials are planted is irrelevant, only the ground external to the radial system is relevant with respect to conductivity.

It should also be kept in mind that the energy in the EM fields surrounding the vertical radiator diminishes with distance from the radiator. Thus the displacement currents entering the ground diminish proportionately with distance. Consequently, there is a distance from the radiator after which the currents become too small to be significant to the conservation of power radiated. This fact determines the maximum length of the radials necessary to reach the point where the law of diminishing returns prevails. The measurements reported in the BLE paper show this distance to be between 0.4 and 0.5 wavelengths. As noted above, this distance is relative to the amount of energy in the displacement currents at this distance from the radiator, and is in no way relevant to any resonant length of the radial. It is well known that radials buried in the ground lose all sense of resonance.

Walt, W2DU

2205. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 20:56:32 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <96ixe.3460$iv3.274@fe02.lga>
Source record: 73972

Man, O, Man, do I have some apologizing to do to Danny Richardson, K6JHE. Danny is the one who supplied the data on the Brown, Lewis and Epstein paper, not Richard Harrison.

I'm sorry, Danny, it was a senior moment at age 86 that's responsible.

Walt, W2DU

2206. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 20:57:19 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <S6ixe.3461$iv3.806@fe02.lga>
Source record: 73971

Man, O, Man, do I have some apologizing to do to Danny Richardson, K6JHE. Danny is the one who supplied the data on the Brown, Lewis and Epstein paper, not Richard Harrison.

I'm sorry, Danny, it was a senior moment at age 86 that's responsible.

Walt, W2DU

2207. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:09:23 UTC
From: KD5NWA <kd5nwa@Cox.net>
Message-ID: <1120252163.424289.107840@g47g2000cwa.googlegroups.com>
Source record: 73973

The article calls all of the devices transformers, not "conventional transformers" including the phase inverter that is a TLT.

2208. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:12:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET>
Source record: 73974

Walt, while this would be wonderful information if I were broadcasting during the day on 75 meters, how is it applicable to those of us who don't care about groundwave?

"Walter Maxwell" <walt@w2du.com> wrote in message news:Swhxe.3456$iv3.2526@fe02.lga...
> (I have tried unsuccessfully to make the tabular data in the msg below come out

2209. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:32:27 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <JEixe.22429$B_3.22179@fe05.lga>
Source record: 73825

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET...
> Walt, while this would be wonderful information if I were broadcasting
> during the day on 75 meters, how is it applicable to those of us who don't
> care about groundwave?

Well, Fred, it's because it has everything to do with how much of your xmtr power is heating the ground vs how much is being radiated at whatever frequency you're using. We're not even talking about ground wave, it's how much power is radiated, period.

Walt

2210. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:33:28 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <KEixe.22430$B_3.12462@fe05.lga>
Source record: 73826

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET...
> Walt, while this would be wonderful information if I were broadcasting
> during the day on 75 meters, how is it applicable to those of us who don't
> care about groundwave?

Well, Fred, it's because it has everything to do with how much of your xmtr power is heating the ground vs how much is being radiated at whatever frequency you're using. We're not even talking about ground wave, it's how much power is radiated, period.

Walt

2211. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:33:41 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <WEixe.22431$B_3.9409@fe05.lga>
Source record: 73828

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET...
> Walt, while this would be wonderful information if I were broadcasting
> during the day on 75 meters, how is it applicable to those of us who don't
> care about groundwave?

Well, Fred, it's because it has everything to do with how much of your xmtr power is heating the ground vs how much is being radiated at whatever frequency you're using. We're not even talking about ground wave, it's how much power is radiated, period.

Walt

2212. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:33:56 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <9Fixe.22432$B_3.4024@fe05.lga>
Source record: 73827

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET...
> Walt, while this would be wonderful information if I were broadcasting
> during the day on 75 meters, how is it applicable to those of us who don't
> care about groundwave?

Well, Fred, it's because it has everything to do with how much of your xmtr power is heating the ground vs how much is being radiated at whatever frequency you're using. We're not even talking about ground wave, it's how much power is radiated, period.

Walt

2213. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:35:13 UTC
From: Dan Richardson <k6mhe>
Message-ID: <ildbc19sfjmoteo30nl80kscu3kdvdv999@4ax.com>
Source record: 73829

On Fri, 1 Jul 2005 16:57:19 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Man, O, Man, do I have some apologizing to do to Danny Richardson, K6JHE. Danny
>is the one who supplied the data on the Brown, Lewis and Epstein paper, not
>Richard Harrison.
>
>I'm sorry, Danny, it was a senior moment at age 86 that's responsible.
>
>Walt, W2DU
>
Not a problem Walt. Now had I never made any errors..... <G>

Very 73 my friend,

Danny,
K6MHE

2214. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:37:03 UTC
From: Dan Richardson <k6mhe>
Message-ID: <epdbc1tfp2s6aphut4jssj84q6codbhksd@4ax.com>
Source record: 73830

On Fri, 1 Jul 2005 17:12:44 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Walt, while this would be wonderful information if I were broadcasting
>during the day on 75 meters, how is it applicable to those of us who don't
>care about groundwave?
>
I think you may have miss the point Fred... Its about antenna
efficiency.

Danny,
K6MHE

2215. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:39:40 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <AKixe.22433$B_3.5888@fe05.lga>
Source record: 73831

"Walter Maxwell" <walt@w2du.com> wrote in message
news:S6ixe.3461$iv3.806@fe02.lga...
> Man, O, Man, do I have some apologizing to do to Danny Richardson, K6JHE.
> Danny is the one who supplied the data on the Brown, Lewis and Epstein paper,
> not Richard Harrison.
>
> I'm sorry, Danny, it was a senior moment at age 86 that's responsible.
>
> Walt, W2DU

Dang, I can't seem to get anything right today. Can't even spell Danny's call
sign correctly. Repeat after me, it's K6MHE, it's K6MHE, it's K6MHE.

Walt, W2DU

>
>

2216. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:41:12 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <%Lixe.22434$B_3.15145@fe05.lga>
Source record: 73832

Sorry about the multiple postings above. My moronic computer told me each time that the msg could not be sent, so I kept trying.

Walt, W2DU

2217. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 21:44:57 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <xPixe.22435$B_3.12305@fe05.lga>
Source record: 73833

"Walter Maxwell" <walt@w2du.com> wrote in message
news:96ixe.3460$iv3.274@fe02.lga...
> Man, O, Man, do I have some apologizing to do to Danny Richardson, K6JHE.
> Danny is the one who supplied the data on the Brown, Lewis and Epstein paper,
> not Richard Harrison.
>
> I'm sorry, Danny, it was a senior moment at age 86 that's responsible.
>
> Walt, W2DU
Dang, I can't seem to get anything right today. Can't even spell Danny's call
sign correctly. Repeat after me, it's K6MHE, it's K6MHE, it's K6MHE.

Walt, W2DU

2218. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 22:01:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11cbf9t914nd90c@corp.supernews.com>
Source record: 73834

Maybe this will help clarify it. . .

As Walt and Danny said, this is all about efficiency -- the fraction of your applied power that gets used heating the ground. So the ground wave and sky wave are reduced by the same fraction. Just look at those dB values in the right hand column of Walt's summary, and they'll apply to 75 meter sky wave as well as to ground wave.

They won't be exact, of course, since they depend on both ground characteristics (to quite a fair depth) and frequency. But they're as good a set of working values as you'll find.

Roy Lewallen, W7EL

Dan Richardson <k6mhe<at>arrl wrote:
> On Fri, 1 Jul 2005 17:12:44 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>Walt, while this would be wonderful information if I were broadcasting
>>during the day on 75 meters, how is it applicable to those of us who don't
>>care about groundwave?
>>
>
> I think you may have miss the point Fred... Its about antenna
> efficiency.
>
> Danny,
> K6MHE
>

2219. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 22:12:58 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42c5c04a_4@newsfeed.slurp.net>
Source record: 73835

"Walter Maxwell" wrote:
> When reviewing these data, please keep in mind that as the field strength
> approaches 194.5 mv/meter the effective ground is approaching perfect
> ground, which means that the conductivity of the ground in which the
> radials are planted is irrelevant, only the ground external to the radial
> system is relevant with respect to conductivity.

BL&E measured the groundwave field strength generated by a 200 milliwatt carrier 0.3 miles from a vertical radiator. This value was converted to equivalent field for 1 kW of radiated power at a distance of 1 mile. With this technique, and with 113 each 0.412-wave radials, they found that their measured/converted field was less than 0.1124 dB below the theoretical value for it over a perfect ground plane. These results demonstrate that the consideration of ground conductivity during this study over this short path was unnecessary (REG, please note).

> It should also be kept in mind that the energy in the EM fields
> surrounding the vertical radiator diminishes with distance from the
> radiator. Thus the displacement currents entering the ground diminish
> proportionately with distance. Consequently, there is a distance from the
> radiator after which the currents become too small to be significant to
> the conservation of power radiated. This fact determines the maximum
> length of the radials necessary to reach the point where the law of
> diminishing returns prevails. The measurements reported in the BLE paper
> show this distance to be between 0.4 and 0.5 wavelengths.

And that was for 113 radials. If only a few radials are used, BL&E report that it is pointless to extend them that far.

RF

2220. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 23:18:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c5d056$1_1@spool9-west.superfeed.net>
Source record: 73836

K7ITM wrote:
> I've just been ignoring it till now, to see what sort of raging
> arguments would start. But is it supposed to be difficult??

According to some experts on this newsgroup, a pure
energy analysis is "gobbledegook" (sic) at best and
impossible at worst. One should avoid an energy (power)
analysis at all costs and deal only with voltages and
currents until the very end of the analysis. It is
ridiculous to try to track the energy inside a transmission
line and any attempt to do so is stupid and doomed to failure
because reflected waves of energy don't really exist. Standing
waves have an independent existence all their own and do not
require a forward traveling energy wave and a rearward traveling
energy wave. The extra energy stored in a transmission line with
reflections just "sloshes" around presumably from side to side.
I could continue but hopefully, you get the idea.

Incidentally, Walter Maxwell doesn't seem to have had any trouble
at all tracking energy (power) in _Reflections_I & II.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2221. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 23:24:51 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <bZmdnafeclxZTVjfRVn-2w@comcast.com>
Source record: 73837
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Charlie" <charlie@earthlink.com> wrote in message
news:11c0kb4s0hdg1d9@news.supernews.com...
>
> Our insurance man has added the structure to our list of covered items in
> our policy so evidently it was OK for coverage.
>
Unfortunately, your local agent will have little or no input into any damage
or property loss claim that you may make -- that is the adjusters and claim
reps --
a whole another breed of cat (and not the domestic kind).
If you get into personal injury or loss of life - it gets complicated very
quickly. Fortunate that you don't have close neighbors.

gb

2222. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 23:38:00 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <wtkxe.32$x82.19@fe03.lga>
Source record: 73838

"Richard Fry" <rfry@adams.net> wrote in message
news:42c5c04a_4@newsfeed.slurp.net...
> "Walter Maxwell" wrote:
>> When reviewing these data, please keep in mind that as the field strength
>> approaches 194.5 mv/meter the effective ground is approaching perfect ground,
>> which means that the conductivity of the ground in which the radials are
>> planted is irrelevant, only the ground external to the radial system is
>> relevant with respect to conductivity.
>
> BL&E measured the groundwave field strength generated by a 200 milliwatt
> carrier 0.3 miles from a vertical radiator. This value was converted to
> equivalent field for 1 kW of radiated power at a distance of 1 mile. With
> this technique, and with 113 each 0.412-wave radials, they found that their
> measured/converted field was less than 0.1124 dB below the theoretical value
> for it over a perfect ground plane. These results demonstrate that the
> consideration of ground conductivity during this study over this short path
> was unnecessary (REG, please note).
>
>> It should also be kept in mind that the energy in the EM fields surrounding
>> the vertical radiator diminishes with distance from the radiator. Thus the
>> displacement currents entering the ground diminish proportionately with
>> distance. Consequently, there is a distance from the radiator after which the
>> currents become too small to be significant to the conservation of power
>> radiated. This fact determines the maximum length of the radials necessary to
>> reach the point where the law of diminishing returns prevails. The
>> measurements reported in the BLE paper show this distance to be between 0.4
>> and 0.5 wavelengths.
>
> And that was for 113 radials. If only a few radials are used, BL&E report
> that it is pointless to extend them that far.
>
> RF

Correct on both counts, Richard, thanks for reminding Reg, I forgot to. Did I mention that I had the privilege of working at Brown's RCA antenna lab along side Epstein for several years? Bob Lewis had left RCA when I arrived, but I knew him later as a ham, W2EBS.

Walt, W2DU

2223. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-01 23:56:35 UTC
From: Owen <owen@no.where>
Message-ID: <s3lbc1lfa1ncse37sa9id8c33405lvajuq@4ax.com>
Source record: 73839

On Fri, 01 Jul 2005 02:29:31 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>One other thing I did long ago was to check some semi-rigid lines with
>solid shield and center conductor and PTFE dielectric, against
>theoretical calculations. As I recall, the agreement was pretty good --
>much better than the garden variety coax.
>

Ok, that is one of the reasons that I looked at how k2 changed with
size of the LDF series.

I have just had a look at LMR200 wrt LMR1700. (They have an aluminium
tape +braid outer.) I do not know the value of D for the closed cell
foam dielectric that they use. The k2 factor (and therefore G) of the
larger cable is about 50% of the smaller cable, though there is nearly
a 1100% increase in diameter. It seems that of the few cables that I
have looked at that ones with better shielding result in less
variation in k2 (and G) with change in diameter (for Zo and
dielectric remaining constant). That suggests that shielding and loss
effectiveness of the outer conductor is to some extent reflected in G
(proportional to f).

Tom, the D figure I quoted for PE was from the ITT Radio Engineers
Handbook.

G seems not to be solely or principally dependendent on D of the
dielectric in a general sense. It may be with very good lines, but it
doesn't seem to be so with single braided PE insulated coax. It is
clear that using D (even at 2e-4) to calculate G in an RLGC model of
R58C/U will not give a very good fit to published attenuation
characteristics.

Regarding using the published specs, I am trying to glean as much as
is reasonable from the published specs. I note and agree with your
comment Roy about the quality or accuracy of some specs.

Thanks all for the thoughts on possible contributions to G.

Owen
--

2224. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 00:17:42 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <VbWdnUxeUpeBQFjfRVn-2Q@comcast.com>
Source record: 73840
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

> Unfortunately, your local agent will have little or no input into any damage
> or property loss claim that you may make -- that is the adjusters and claim
> reps --
> a whole another breed of cat (and not the domestic kind).
> If you get into personal injury or loss of life - it gets complicated very
> quickly. Fortunate that you don't have close neighbors.
>
> gb

Yep underwriters are more than willing to add things to make more bucks.

Getting the claim later is an all together another proposition.

2225. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 00:56:27 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4bb90$42c5e63d$97d55b49$11166@ALLTEL.NET>
Source record: 73841

So as I understand it, as I add more radials, my field strength should
increase regardless of the elevation angle. Assuming I make all measurements
at the same point.

"Walter Maxwell" <walt@w2du.com> wrote in message
news:JEixe.22429$B_3.22179@fe05.lga...
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET...
> > Walt, while this would be wonderful information if I were broadcasting
> > during the day on 75 meters, how is it applicable to those of us who
don't
> > care about groundwave?
>
> Well, Fred, it's because it has everything to do with how much of your
xmtr
> power is heating the ground vs how much is being radiated at whatever
frequency
> you're using. We're not even talking about ground wave, it's how much
power is
> radiated, period.
>
> Walt
>
>

2226. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 01:00:20 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120266020.568584.245570@o13g2000cwo.googlegroups.com>
Source record: 73842

The BUX Communications Company is a really good company to work with. They will tell you what you can or cannot accomplish. They have in the site listed below instructions on building J-Poles, a single horizontal beam, then just a plain jain omnidirectional vertical plane antenna and other wire antennas.

Go to it!!!

Let me know what you end up doing. thecowboyace at yahoo.com

http://www.packetradio.com/antennaHandbook.htm#6mjpole
http://www.packetradio.com/windom.htm
http://www.packetradio.com/g5rv.htm

2227. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 01:18:05 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <gXIxe.109285$x96.97420@attbi_s72>
Source record: 73843

"KD5NWA" <kd5nwa@Cox.net> wrote in message
news:1120252163.424289.107840@g47g2000cwa.googlegroups.com...
> The article calls all of the devices transformers, not "conventional
> transformers" including the phase inverter that is a TLT.

Actually, if you'll take a read of part 2 of the application note ECO6907,
(ECO7213, which I referenced) It specifically states that part 1 was devoted
entirely to the design of *transmission line transformers*, which had the
advantage of the widest possible bandwidth, but several disadvantages as
well. Therefore, part 2 considers the possibility of applying a
conventional transformer if those constraints were undesireable.

Sheeeeeeeeesh!
W4ZCB

2228. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 01:22:07 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120267327.261174.88120@f14g2000cwb.googlegroups.com>
Source record: 73844

Also ......
Go to http://www.packetradio.com/antennaHandbook.htm and then -
Do a Ctrl-F for 146.5MHz; TV Twin-Lead J-Pole for a real quickie. Now
this is for 146.5MHz so you'll need to get your calculator out to
figure out what it will be for 6 meter work

2229. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 01:44:12 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42c5f1cc_4@newsfeed.slurp.net>
Source record: 73845

"Walter Maxwell"
> Correct on both counts, Richard, thanks for reminding Reg, I forgot to.
> Did I mention that I had the privilege of working at Brown's RCA antenna
> lab along side Epstein for several years? Bob Lewis had left RCA when I
> arrived, but I knew him later as a ham, W2EBS.

That would have been a privilege. When with RCA I worked a bit with Matti Siukola, Oded Ben-Dov, Nick Nikolayuk and others at the RCA broadcast antenna design center and test range at Gibbsboro, NJ . Great facility in those days.

RF

2230. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 01:46:46 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <emmxe.22473$B_3.5145@fe05.lga>
Source record: 73846

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4bb90$42c5e63d$97d55b49$11166@ALLTEL.NET...
> So as I understand it, as I add more radials, my field strength should
> increase regardless of the elevation angle. Assuming I make all measurements
> at the same point.
>
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:JEixe.22429$B_3.22179@fe05.lga...
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:4bac3$42c5b1d0$97d55b49$8639@ALLTEL.NET...
>> > Walt, while this would be wonderful information if I were broadcasting
>> > during the day on 75 meters, how is it applicable to those of us who
> don't
>> > care about groundwave?
>>
>> Well, Fred, it's because it has everything to do with how much of your
> xmtr
>> power is heating the ground vs how much is being radiated at whatever
> frequency
>> you're using. We're not even talking about ground wave, it's how much
> power is
>> radiated, period.
>>
>> Walt
>>
Fred, the radials affect only the efficiency of the radiator--power lost in the ground resistance vs power radiated. The take off, or elevation angle is determined by the ground conductivity external to the radial system, the poorer the ground the less power will radiate at low elevation angles. In other words, the better the ground conductivity external to the radial system the lower the elevation angle of the maximum radiation. If the conductivity was perfect at an infinite distance away from the radiator the elevation angle of the maximum radiation lobe would be zero degrees.

Walt, W2DU

2231. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 02:03:55 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <fCmxe.38178$J12.4641@newssvr14.news.prodigy.com>
Source record: 73847

Might not do even that good- try to sweep the frequency with a
antenna modeling program, (atleast for an analog station)! Doubt
it would have the requesit 6 mHz bandwidth with this antenna!!

Fred W4JLE wrote:
> Bet it won't, unless your only interested in 1 channel or are in an area of
> vary strong signals where it dosn't matter what you use.
>
> <jcooper874@webtv.net> wrote in message
> news:512-42C5002D-397@storefull-3274.bay.webtv.net...
>
>>i bet the moxon will make a good tv antenna
>>
>
>
>

2232. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 02:05:21 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <BDmxe.12863$hK3.9918@newsread3.news.pas.earthlink.net>
Source record: 73848

>
> 2. That it is not a true transmission line transformer, because your
> transmission-line windings are not being fed with opposite polarities
> across the *same* end?
>

Ian,
I wanted to give a more thorough reply to your question earlier, but at
the time a spontaneous reply did not seem to be sufficient. So, I have put
together an extensive tutorial on the subject of the theory, synthesis, and
practical considerations in the design of transmission line transformers
that is a result of over two decades of designing these things as a hands-on
hardware designer:

http://www.home.earthlink.net/~christrask/TraskTLTTutorial.pdf

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Senior Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"Ian White GM3SEK" <g3sek@ifwtech.co.uk> wrote in message
news:wV5GouJgO7vCFAMG@ifwtech.co.uk...
> Chris Trask wrote:
> >
> > It's not a matter of whether I disagree with him or not. It's a
matter
> >of him standing on a cybersoapbox and declaring to the world in numerous
> >ways that such a thing cannot work and that only his analysis of how it
can
> >and cannot work is valid. He can't deny that he claimed that it was
> >impossible, so now he has to prove that the solution cannot possibly work

> >the way that he knows that it cannot work. Whatever.
> >
>
> Please skip the personal rhetoric, and tell us how you respond to his
> two main technical points about your transformer:
>
> 1. That it is simply a 2:1 transformer with an isolated primary and
> secondary?
>
> 2. That it is not a true transmission line transformer, because your
> transmission-line windings are not being fed with opposite polarities
> across the *same* end?
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

2233. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 02:16:04 UTC
From: richardharrison@webtv.net
Message-ID: <6043-42C5F8E4-101@storefull-3258.bay.webtv.net>
Source record: 73849

I only wish I had contributed B, L, and E`s findings on antenna radials. My information has always come 2nd hand from its reprinting by Ed Laport in "Radio Antenna Engineering. Ed has formulas to use in choosing your ground system. I can`t find my copy of Ed`s excellent book at the moment. Laport, like Walter, W2DU, is an RCA alumnus and has associated with the famous pioneers. K6JHE did us a favor by posting the original data.

Common sense says that earth closest to a vertical tower gets most of the capacitive current between the tower and the earth. It is important that density of the ground radials be high close to the tower to reduce current in the lossy soil.

I think there is more to it.

The area of a circle around a tower is (pi)(r)(r), where r=distance from the tower. Area grows as the square of the distance from the tower. Assume a unit depth for the earth crust, and cross-section becomes equal to the surface area.

The resistance of a conductor is its resistive coefficient times its length divided by its cross-sectional area.

Total resistance seen by a ground wave traveling away from a tower is an inverse function of the distance from the tower`s highly conducting ground system. The farther from the tower you get, the more cross-aection there is, so the less resistance there is in the earth. This must be in textbooks, but I don`t recall seeing it. I once asked what a-c resistance to use for the earth at 60 Hz, 50 some years ago, in a student problem and was told to use 25 ohms, no matter what the distance through earth was. That`s when I noodled out the above explanation for the earth`s resistance. It should work at r-f too except for skin effect which if I recall causes an increase in resistance proportional to the square root of the frequency. The skin thickness is proportional to the reciprocal of the square root of the frequency.

The point is that high conductivity is only needed very close to the tower for the ground wave. For a sky wave, you need high conductivity at the reflection point for a vertically polarized wave.

Best regards, Richard Harrison, KB5WZI

2234. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 02:57:41 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120273060.866823.186010@g47g2000cwa.googlegroups.com>
Source record: 73850

I don't know exactly what you is a doin' but if you have Quatro, Excel Spreadsheet, Lotus 123 and all of them other spreadsheet programs just plug in the knowns and you'll get it figured out.

That's all, Folks!

2235. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:03:17 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120273397.616570.229180@f14g2000cwb.googlegroups.com>
Source record: 73851

Joh, email me at thecowboyace@yahoo.com. I hate that name but it was
what a gal did to me when she set my computer up for me on the internet
and a site deal and some other crud and I'm sorta tied into that.
Cliff G.

2236. Schematic drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:19:00 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120274340.009367.249520@g44g2000cwa.googlegroups.com>
Source record: 73852

Where can one find a diluted, to a small degree, schematic drawings
related to radios/electronics?

I am on the almost side of having to watch every penny because of being
a disabled vet and having to pay a small amount of change in child
support - not griping one iota on paying child support - they be my
children but the judge sorta tapped me on the hard side. But better
days will come and better days will go and the good days always come!
Take care God Bless
Cliff
Blue Dawg
Goat

2237. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:21:07 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120274467.397201.292410@f14g2000cwb.googlegroups.com>
Source record: 73853

I wish that I could really interpret the antenna modeling programs. I just can't seem, at the present, to get a fundamental grip on it. It will come.

2238. Antenna Modelling - State of the art ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:28:21 UTC
From: wilfam@technet2000.com.au
Message-ID: <1120274901.016516.268150@g14g2000cwa.googlegroups.com>
Source record: 73854
Cross-posted to: rec.radio.amateur.antenna,sci.physics.electromag

Hi,

I'd like to ask 3 questions:

1. Is this the main NEC users forum ? I recently tried the NEC mailing list but is didn't seem to be operational.

2. Which modelling programs are considered state of the art in terms of wire antenna modelling ? Is it NEC 4 ?

3. We have been using wire grids to model antennas on structures. When I mentioned this to a non antenna modelling colleague he thought that using a wire grid "could't be right". Now, wire grids provide a representation of a solid surface. These types of questions can be challenging and deserve an answer.

So, which modelling programs are considered state of the art in terms of modelling the infuence of structures on antenna performance ?

Thanks,

Michael.

2239. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:28:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11cc2fe3ni9nrfd@corp.supernews.com>
Source record: 73855

Richard Harrison wrote:
> . . .
> It should work at r-f too except
> for skin effect which if I recall causes an increase in resistance
> proportional to the square root of the frequency. The skin thickness is
> proportional to the reciprocal of the square root of the frequency. . .

That's an approximation which is true only for a good conductor. A poor conductor like ground acts like a conductor only up to a particular frequency, above which it acts like a dielectric in which the skin depth stays constant with frequency. Of course, there isn't an abrupt change, but the characteristic transitions from one to the other much like the frequency response of a highpass filter transitions from a fixed rising characteristic to flatten at the break frequency.
Here are the transition frequencies for some common types of ground, where the first number in parentheses is the conductivity in S/m, the second is the relative permittivity (dielectric constant):

Very good (0.0303, 20): 27.2 MHz
Average (0.005, 13): 6.9 MHz
Poor (0.002, 13): 2.8 MHz

For many purposes involving electromagnetics including determining skin depth, the ground acts like a conductor below the transition frequency and like a dielectric above it.

For example, here's the skin depth in feet for average soil at various frequencies:

Freq MHz Skin Depth Ft

0.5 34.2
1 25.1
3.5 15.9
7 13.8
10 13.2
30 12.6
100 12.6

A very good treatment of this can be found in Kraus' _Electromagnetics_.

Roy Lewallen, W7EL

2240. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:32:23 UTC
From: Jer <listme@listme.dsbl.org>
Message-ID: <bVnxe.4858$3o4.4427@tornado.socal.rr.com>
Source record: 73856

Why don't you just change it, its easy enough?

Jer

"Blue Dawg" <thecowboyace@yahoo.com> wrote in message
news:1120273397.616570.229180@f14g2000cwb.googlegroups.com...
> Joh, email me at thecowboyace@yahoo.com. I hate that name but it was
> what a gal did to me when she set my computer up for me on the internet
> and a site deal and some other crud and I'm sorta tied into that.
> Cliff G.
>

2241. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:47:38 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <u7oxe.110875$tt5.26681@edtnps90>
Source record: 73857

"Blue Dawg" <thecowboyace@yahoo.com> wrote in message
news:1120273060.866823.186010@g47g2000cwa.googlegroups.com...
>I don't know exactly what you is a doin' but if you have Quatro, Excel
> Spreadsheet, Lotus 123 and all of them other spreadsheet programs just
> plug in the knowns and you'll get it figured out.
>
> That's all, Folks!

Cecil, How about a clue. Can we describe the discontinuity as a two port [S] matrix? The squared magnitude of the "s" parameters does relate to power in a two port network -- am I on the right track? I took your hint, in a previous posting, and downloaded HP's 95-1. I thought I had a copy, but it seems to have evaporated. Also noted your Pfwd2 = 156.25 W, and Pref2 = 56.25 W. Is this type of reading not just a peculiarity of thru-line wattmeters. I realize you can compute mag Gamma sub p, and hence gamma sub v. Why doesn't somebody make a MathCAD NG? It would get rid of all this ugly math.

Regards,

Frank

2242. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 03:56:25 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <mo3cc1pfr97fsofi5l69qti7cv84dis2p3@4ax.com>
Source record: 73858

On Fri, 01 Jul 2005 04:30:00 GMT, Owen <owen@no.where> wrote:

>On Thu, 30 Jun 2005 21:07:20 -0700, Roy Lewallen <w7el@eznec.com>
>wrote:
>
>>I saw this apparent discrepancy many years ago, and wondered the same
>>thing. I've come to believe that the extra loss is due to the braided
>>shield, not some unknown additional dielectric loss. There's very little
>>quantitative information about that loss mechanism, but from time to
>>time I've come across comments that it can be substantial.
>
>Roy,
>
>I thought about the effects of through braid loss. I guess any loss
>that increases proportionately to f will be captured in the loss model
>and allocated against k2.
>
>Below are k2 factors for a few cables of interest. The first three use
>PE dielectic, and there is a big difference between RG58 and RG213
>where the dimesions of the dielectric are quite different. A small
>difference between RG213 and RG214 with similar dielectric size, but
>214 has double braiding, suggesting that braid loss / leakage may one
>of the factors.
>
>Belden 8262 (RG58C/U) 2.95e-10
>Belden 8267 (RG213) 8.23e-11
>Belden 8268 (RG214) 7.17e-11
>
>The next bunch don't use braid, but use a corrugated solid outer
>conductor. Not a dramatic change in k2 considering how much larger
>6-50 is compared to 4-50.
>
>LDF4-50 6.15e-12
>LDF6-50 4.60e-12
>
>Could the distribution of the electric field intensity in the
>dielectric be a factor, will the dielectric exposed to the highest
>field intensity dissipate the most power?

I'm a little late on this as my news service just hiccupped.

Without wading throught the ASCII math, a couple of thoughts.

1. As Tom said, most references give the D of poly as 0.0002,
although the "Handbook of Coaxial Microwave Measurements" by General

Radio gives it as 0.0003.

2. Again, without having followed the derivation, I find the k2 values to be different from those given by the handiwork of Dan, AC6LA, in his XLZIZL.xls workbook or his TLdetails program. Dan used published attenuation values and Excel regression analysis to determine the values of k1 and k2. See:

http://www.qsl.net/ac6la/bestfit.html

3. Also, General Radio says, "alpha(diel) does not depend at all on the dimensions of the line..." This suggests that there should be no difference in k2 between LDF4-50 and LDF6-50. Dan's numbers show that to be the case.

4. Any loss that doesn't follow the sqrt(f) rule (radiation, wire-to-wire resistance of braid?, etc) as you suggest falls into the k2 term.

5. High-quality, high-frequency (microwave) flex cables do away with braid, or at least solder fill it, and use tape-wound shields.

2243. Re: Antenna Modelling - State of the art ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 04:00:25 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <tjoxe.110878$tt5.14944@edtnps90>
Source record: 73859
Cross-posted to: rec.radio.amateur.antenna,sci.physics.electromag

<wilfam@technet2000.com.au> wrote in message
news:1120274901.016516.268150@g14g2000cwa.googlegroups.com...
> Hi,
>
> I'd like to ask 3 questions:
>
> 1. Is this the main NEC users forum ? I recently tried the NEC mailing
> list but is didn't seem to be operational.
>
> 2. Which modelling programs are considered state of the art in terms of
> wire antenna modelling ? Is it NEC 4 ?
>
> 3. We have been using wire grids to model antennas on structures. When
> I mentioned this to a non antenna modelling colleague he thought that
> using a wire grid "could't be right". Now, wire grids provide a
> representation of a solid surface. These types of questions can be
> challenging and deserve an answer.
>
> So, which modelling programs are considered state of the art in terms
> of modelling the infuence of structures on antenna performance ?
>
> Thanks,
>
> Michael.

1. Some people here are familiar with NEC, though most seem to use EZNEC.
The NEC mailing list is at http://www.robomod.net/

2. I would sure like to get NEC 4, but it is a bit expensive.

3. Wire grid models can adequately describe solid surfaces, providing NEC's
guidelines for such models are followed.

4.As for state of the art there are at least two FEM programs available.
One is HFSS from www.ansoft.com

Regards,

Frank

2244. MOBILE ANTENNA MAGNETS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 04:15:30 UTC
From: notmeman <aintme@aol.com>
Message-ID: <s25cc1h92766dfnkut4krgts31ici6ul92@4ax.com>
Source record: 73860

Any suggestions where I can get some strong, preferably machined for
standard screws and covered to protct paint finish, like the ones that
are one 3,4, 5 magnet mobile mounts?

Please relpy direct to me...

k0dan at arrl dot net

thanks and 73

dan

2245. Re: MOBILE ANTENNA MAGNETS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 05:21:07 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <8upxe.25264$Xv.13407@bignews4.bellsouth.net>
Source record: 73861

Usually you can find a bunch of old cb mag-mount antennas at hamfests and at
many flea markets
HTH
didahdah dididididah didahdahdit dadah didahdahdah

"notmeman" <aintme@aol.com> wrote in message
news:s25cc1h92766dfnkut4krgts31ici6ul92@4ax.com...
> Any suggestions where I can get some strong, preferably machined for
> standard screws and covered to protct paint finish, like the ones that
> are one 3,4, 5 magnet mobile mounts?
>
> Please relpy direct to me...
>
> k0dan at arrl dot net
>
> thanks and 73
>
> dan

2246. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 05:31:02 UTC
From: Owen <owen@no.where>
Message-ID: <cf8cc1djtflklmhmflaer99na066kajj3k@4ax.com>
Source record: 73862

On Fri, 01 Jul 2005 20:56:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>Without wading throught the ASCII math, a couple of thoughts.

I see someone else grizzling about the "ugly maths". Oh well...

>
>1. As Tom said, most references give the D of poly as 0.0002,
>although the "Handbook of Coaxial Microwave Measurements" by General
>Radio gives it as 0.0003.

Ok, as I posted in another msg, my figure came from the ITT Ref Hbk,
and even at 2e-4, it comes short of being the entire explanation of G
derived from published loss figures. I accept that the ITT book is
much lower than others.

Just Googling, I see Reg's site shows 2e-5,
>
>2. Again, without having followed the derivation, I find the k2
>values to be different from those given by the handiwork of Dan,
>AC6LA, in his XLZIZL.xls workbook or his TLdetails program. Dan used
>published attenuation values and Excel regression analysis to
>determine the values of k1 and k2. See:
>

Dans k2 figures are based on units of MHz and feet, mine are Hz and
metres, and when you allow for the units base, they reconcile to
within 1%.

>http://www.qsl.net/ac6la/bestfit.html
>
>3. Also, General Radio says, "alpha(diel) does not depend at all on
>the dimensions of the line..." This suggests that there should be no
>difference in k2 between LDF4-50 and LDF6-50.

I believe that is true, my derivation is that k2=9.09e-8 * D /vf (for
units of Hz and metres). So, the "leakage" loss depends on D and 1/vf
(or permittivity**0.5), and dimensions don't enter the equation.

What sent me down this track is trying to reconcile this with the
published specs which claim more loss than is explained by the
dielectric.

> Dan's numbers show that
>to be the case.

Dan's figure (in my ZLZIZL) is, like mine, a little lower (25%) for
the larger line. It is the observation that it varies that suggests
there is more to it than D alone.

>
>4. Any loss that doesn't follow the sqrt(f) rule (radiation,
>wire-to-wire resistance of braid?, etc) as you suggest falls into the
>k2 term.
>
>5. High-quality, high-frequency (microwave) flex cables do away with
>braid, or at least solder fill it, and use tape-wound shields.

Yes, see my other post regarding the LMR cables which, like the LDF
series, show much less variation in k2 with cable size than moving
from RG58C/U to RG213.

Thanks for the thinking Wes, Owen

--

2247. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 05:36:49 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <SIpxe.25293$Xv.15971@bignews4.bellsouth.net>
Source record: 73863

But can you solve this:
A frog is in the bottom of a 10-foot well can jump 3 ft, but every time he jumps 3 ft, he slides back down 2 feet.
How many clothespins does the frog need to hang up 10 towels on the clothesline, if the boat can attain a forward speed of 10 mph as he crosses a river which is running at 5 mph, and the SWR on his analyzer is 1.1 to 1 and the voltage drop across the frog's legs is 150 ohms, then what would the tax on a cup of tea cost in China when the frog gets to the top of the well.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c43383$1_1@spool9-west.superfeed.net...
> It would be interesting to find out who, among the
> experts on this group, cannot solve this problem
> for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
> Vref2, Iref2 including magnitudes and phase
> angles.
>
> Given: a Z0-match at an impedance discontinuity in
> a transmission line. Source is unknown. Load is
> unknown. Lengths of transmission lines are unknown.
> Reference phase: Vfwd1 is incident upon the Z0-match
> at a reference phase angle of zero degrees.
>
> ---50 ohm feedline---+---200 ohm feedline---
> Pfwd1=100w--> Pfwd2=156.25w-->
> <--Pref1=0w <--Pref2=56.25w
>
> Contrary to what some people assert, is it possible
> to calculate the magnitudes and phases of the
> above voltages and currents knowing only the
> Z0's and the forward and reflected powers?
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
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News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
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2248. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 05:37:40 UTC
From: dutchman2u <DUTCH@ELP.RR.COM>
Message-ID: <1120282660.698288.202470@o13g2000cwo.googlegroups.com>
Source record: 73864

What size is your boom . you could use a U-100 aliance rotor they have a 1"5/8 hole throgh. You can find them on ebay for say 40-50 -or less. Make a T on the mask pipe and mount the rotor on it side use the clamps to the T and walla. roll it over vertial or horizonal a very easy fix only need 3or 4 wire to make it work . also u can insert a 15/8" in the middle of the boom .. pin it well if the boom is 2" or more .. 73 Ralph

2249. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 05:37:46 UTC
From: dutchman2u <DUTCH@ELP.RR.COM>
Message-ID: <1120282666.889199.136090@g49g2000cwa.googlegroups.com>
Source record: 73865

What size is your boom . you could use a U-100 aliance rotor they have a 1"5/8 hole throgh. You can find them on ebay for say 40-50 -or less. Make a T on the mask pipe and mount the rotor on it side use the clamps to the T and walla. roll it over vertial or horizonal a very easy fix only need 3or 4 wire to make it work . also u can insert a 15/8" in the middle of the boom .. pin it well if the boom is 2" or more .. 73 Ralph

2250. Re: MOBILE ANTENNA MAGNETS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 05:40:54 UTC
From: theposter <mailguy2004@yahoo.com>
Message-ID: <tdbv4i5bibvqlfw.010720052241@kirk>
Source record: 73866

I have never seen magnets at those places. I have been too distracted
by the "Magnificent Nuts" there, unless that was just a typo on your
end, and that is what you were referring to.

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:8upxe.25264$Xv.13407@bignews4.bellsouth.net...
> Usually you can find a bunch of old cb mag-mount antennas at
> hamfests and at
> many flea markets
> HTH
> didahdah dididididah didahdahdit dadah didahdahdah
>
> "notmeman" <aintme@aol.com> wrote in message
> news:s25cc1h92766dfnkut4krgts31ici6ul92@4ax.com...
>> Any suggestions where I can get some strong, preferably machined
>> for
>> standard screws and covered to protct paint finish, like the ones
>> that
>> are one 3,4, 5 magnet mobile mounts?
>>
>> Please relpy direct to me...
>>
>> k0dan at arrl dot net
>>
>> thanks and 73
>>
>> dan
>
>
>

2251. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 06:10:51 UTC
From: theposter <mailguy2004@yahoo.com>
Message-ID: <7uuc2xh118v3c2z.010720052311@kirk>
Source record: 73867

sure, go ahead, toss a quantum physics word problem at us

anyway it just depends on what shade of green the frog was to start
with and since quantum physics teaches us that it is highly possible
the frog can be in two places at once, he was already out of the well
before he even began his escape, the number of clothes pins remains
undetermined

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:SIpxe.25293$Xv.15971@bignews4.bellsouth.net...
> But can you solve this:
> A frog is in the bottom of a 10-foot well can jump 3 ft, but every
> time he
> jumps 3 ft, he slides back down 2 feet.
> How many clothespins does the frog need to hang up 10 towels on the
> clothesline, if the boat can attain a forward speed of 10 mph as he
> crosses
> a river which is running at 5 mph, and the SWR on his analyzer is
> 1.1 to 1
> and the voltage drop across the frog's legs is 150 ohms, then what
> would the
> tax on a cup of tea cost in China when the frog gets to the top of
> the well.
>
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42c43383$1_1@spool9-west.superfeed.net...
>> It would be interesting to find out who, among the
>> experts on this group, cannot solve this problem
>> for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
>> Vref2, Iref2 including magnitudes and phase
>> angles.
>>
>> Given: a Z0-match at an impedance discontinuity in
>> a transmission line. Source is unknown. Load is
>> unknown. Lengths of transmission lines are unknown.
>> Reference phase: Vfwd1 is incident upon the Z0-match
>> at a reference phase angle of zero degrees.
>>
>> ---50 ohm feedline---+---200 ohm feedline---
>> Pfwd1=100w--> Pfwd2=156.25w-->
>> <--Pref1=0w <--Pref2=56.25w
>>
>> Contrary to what some people assert, is it possible
>> to calculate the magnitudes and phases of the

>> above voltages and currents knowing only the
>> Z0's and the forward and reflected powers?
>> --
>> 73, Cecil, http://www.qsl.net/w5dxp
>>
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>> Encryption
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2252. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 06:16:08 UTC
From: theposter <mailguy2004@yahoo.com>
Message-ID: <mtpzqhwu8mvjnab.010720052316@kirk>
Source record: 73868

by the way, that chinese&tea thing, that is considered as racist as
referring to blacks&watermelon

you must remove that part from your word problem

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:SIpxe.25293$Xv.15971@bignews4.bellsouth.net...
> But can you solve this:
> A frog is in the bottom of a 10-foot well can jump 3 ft, but every
> time he
> jumps 3 ft, he slides back down 2 feet.
> How many clothespins does the frog need to hang up 10 towels on the
> clothesline, if the boat can attain a forward speed of 10 mph as he
> crosses
> a river which is running at 5 mph, and the SWR on his analyzer is
> 1.1 to 1
> and the voltage drop across the frog's legs is 150 ohms, then what
> would the
> tax on a cup of tea cost in China when the frog gets to the top of
> the well.
>
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42c43383$1_1@spool9-west.superfeed.net...
>> It would be interesting to find out who, among the
>> experts on this group, cannot solve this problem
>> for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
>> Vref2, Iref2 including magnitudes and phase
>> angles.
>>
>> Given: a Z0-match at an impedance discontinuity in
>> a transmission line. Source is unknown. Load is
>> unknown. Lengths of transmission lines are unknown.
>> Reference phase: Vfwd1 is incident upon the Z0-match
>> at a reference phase angle of zero degrees.
>>
>> ---50 ohm feedline---+---200 ohm feedline---
>> Pfwd1=100w--> Pfwd2=156.25w-->
>> <--Pref1=0w <--Pref2=56.25w
>>
>> Contrary to what some people assert, is it possible
>> to calculate the magnitudes and phases of the
>> above voltages and currents knowing only the
>> Z0's and the forward and reflected powers?
>> --

>> 73, Cecil, http://www.qsl.net/w5dxp
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>> Usenet
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>> Encryption
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2253. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 08:04:38 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <sTrxe.25551$Xv.16343@bignews4.bellsouth.net>
Source record: 73869

I think we can do this without removing that part from the problem.
Add the word "cup" after every word "China", and change the word "China" to "china" in the original problem.
Add the word "a" before the word "china" . Then convert every letter to its ascii equivalent and add 13 to each, then replace the characters for the new ascii values, THEN sol\ve the problem given by Cecil in the first place.
I was not aware that tea was a racist word in the context of the Peoples Republic of China.
Do they not tax tea any longer because of that?
Does that mean its racist (or "profiling") to speak of "Sweet Tea" (Iced Tea) and Southerners in the same sentence?

"theposter" <mailguy2004@yahoo.com> wrote in message
news:mtpzqhwu8mvjnab.010720052316@kirk...
> by the way, that chinese&tea thing, that is considered as racist as
> referring to blacks&watermelon
>
> you must remove that part from your word problem
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:SIpxe.25293$Xv.15971@bignews4.bellsouth.net...
> > But can you solve this:
> > A frog is in the bottom of a 10-foot well can jump 3 ft, but every
> > time he
> > jumps 3 ft, he slides back down 2 feet.
> > How many clothespins does the frog need to hang up 10 towels on the
> > clothesline, if the boat can attain a forward speed of 10 mph as he
> > crosses
> > a river which is running at 5 mph, and the SWR on his analyzer is
> > 1.1 to 1
> > and the voltage drop across the frog's legs is 150 ohms, then what
> > would the
> > tax on a cup of tea cost in China when the frog gets to the top of
> > the well.
> >
> >
> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> > news:42c43383$1_1@spool9-west.superfeed.net...
> >> It would be interesting to find out who, among the
> >> experts on this group, cannot solve this problem
> >> for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
> >> Vref2, Iref2 including magnitudes and phase
> >> angles.
> >>

> >> Given: a Z0-match at an impedance discontinuity in
> >> a transmission line. Source is unknown. Load is
> >> unknown. Lengths of transmission lines are unknown.
> >> Reference phase: Vfwd1 is incident upon the Z0-match
> >> at a reference phase angle of zero degrees.
> >>
> >> ---50 ohm feedline---+---200 ohm feedline---
> >> Pfwd1=100w--> Pfwd2=156.25w-->
> >> <--Pref1=0w <--Pref2=56.25w
> >>
> >> Contrary to what some people assert, is it possible
> >> to calculate the magnitudes and phases of the
> >> above voltages and currents knowing only the
> >> Z0's and the forward and reflected powers?
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> >> 73, Cecil, http://www.qsl.net/w5dxp
> >>
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2254. Re: Schematic drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 09:27:23 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373837383542C66C0B69@zetnet.co.uk>
Source record: 73876

> Where can one find a diluted, to a small degree, schematic drawings
> related to radios/electronics?

> I am on the almost side of having to watch every penny because of being
> a disabled vet and having to pay a small amount of change in child
> support - not griping one iota on paying child support - they be my
> children but the judge sorta tapped me on the hard side. But better
> days will come and better days will go and the good days always come!
> Take care God Bless
> Cliff
> Blue Dawg
> Goat

Try these see if there any good to you. Dave

http://www.mods.dk/view.php?ListManuals=kenwood

http://www.eserviceinfo.com/index.php?what=search2

And for radio Manuals Try www.mbars.co.uk

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

2255. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 10:44:20 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11ccrvqrdeae804@corp.supernews.com>
Source record: 73870

Dear Richard:

Your last paragraph (quoted below) is a good summary. It, or something
like it, should be an introductory paragraph in every vertical's data sheet
and advertisement. Well done.

To have a vertical perform well for the important (for DX) angles
between 2 and 12 degrees (above the horizon) one would like to have a copper
sea starting one or two wavelengths from the antenna. I have worked 10 watt
backpack stations in the UK when they were by the sea side. No hope to do
so when they are inland.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Harrison" <richardharrison@webtv.net> wrote in
<snip>
>
> The point is that high conductivity is only needed very close to the
> tower for the ground wave. For a sky wave, you need high conductivity at
> the reflection point for a vertically polarized wave.
>
> Best regards, Richard Harrison, KB5WZI
>

2256. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 11:15:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <da5t0hfap1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73871

The fact is nobody knows the dielectric loss of polyethylene. It is too small to measure samples in a bridge. The materials of which the bridge is made have losses of the same order.

The slightest unavoidable impurities and contamination during production cause wide variations in D.

Coaxial line Attenuation = A*Sqrt(F) + B*F

The most accurate way to estimate D at HF is to measure attenuation versus frequency over a wide frequency range on several miles of solid polyethylene coaxial line.

Then separate the constants A and B by plotting on graph paper Attenuation/Sqrt(F) versus Sqrt(F). and then do a few simple calculations.

I have performed this operation several times during acceptance tests on newly laid cables. The cable insulation was mainly air-spaced with the inner conductor being supported by polyethylene disks at 1.5" intervals.

D can vary noticeably from one length of cable to another manufactured from a different batch of nominally identical materials.

I have also measured attenuation on many miles of 1" diameter solid polyethylene submarine cable and determined quality of the insulation by this graphical means. It is necessary to make attenuation measurements very accurately by the substitution method against standard attenuators.

But for comparison, I have never measured the relative junk used by radio amateurs.

Reg.

2257. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 12:56:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c68fed$1_1@spool9-west.superfeed.net>
Source record: 73872

Frank wrote:
> Cecil, How about a clue. Can we describe the discontinuity as a two port
> [S] matrix? The squared magnitude of the "s" parameters does relate to
> power in a two port network -- am I on the right track? I took your hint,
> in a previous posting, and downloaded HP's 95-1. I thought I had a copy,
> but it seems to have evaporated. Also noted your Pfwd2 = 156.25 W, and
> Pref2 = 56.25 W. Is this type of reading not just a peculiarity of
> thru-line wattmeters. I realize you can compute mag Gamma sub p, and hence
> gamma sub v. Why doesn't somebody make a MathCAD NG? It would get rid of
> all this ugly math.

Hi Frank, the point is that the math is not ugly. Simple
math, deductive reasoning, and a four-function calculator
with square root is all one needs.

```
---50 ohm feedline---+---200 ohm feedline---
Pfwd1=100w--> Pfwd2=156.25w-->
<--Pref1=0w <--Pref2=56.25w
```

```
Vfwd1 = SQRT(Pfwd1*Z01) at zero degrees = 70.7v at 0 deg
Ifwd1 = SQRT(Pfwd1/Z01) at zero degrees = 1.4a at 0 deg
(Vfwd1 and Ifwd1 are the reference phase angles.)
Vref1 = 0 (given)
Iref1 = 0 (given)
```

```
Vfwd2 = SQRT(Pfwd2*Z02) at zero degrees = 176.8v at 0 deg
Ifwd2 = SQRT(Pfwd2/Z02) at zero degrees = 0.88a at 0 deg
Vref2 = SQRT(Pref2*Z02) at X degrees = 106v at 180 deg.
Iref2 = SQRT(Pref2/Z02) at Y degrees = 0.53a at 0 deg.
```

```
Note: For a Z0-match to exist:
If Z02 > Z01, then X=180 degrees and Y=0 degrees
If Z02 < Z01, then X=0 degrees and Y=180 degrees
Vfwd2 and Vref2 have to add up to Vfwd1
Ifwd2 and Iref2 have to add up to Ifwd1
```

We didn't even have to calculate rho. This energy analysis
works for all Z0-matched systems, the most common of
amateur radio systems.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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2258. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 13:07:37 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <vkwxe.4788$iv3.2799@fe02.lga>
Source record: 73873

"Richard Fry" <rfry@adams.net> wrote in message
news:42c5f1cc_4@newsfeed.slurp.net...
> "Walter Maxwell"
>> Correct on both counts, Richard, thanks for reminding Reg, I forgot to. Did I
>> mention that I had the privilege of working at Brown's RCA antenna lab along
>> side Epstein for several years? Bob Lewis had left RCA when I arrived, but I
>> knew him later as a ham, W2EBS.
> _____
>
> That would have been a privilege. When with RCA I worked a bit with Matti
> Siukola, Oded Ben-Dov, Nick Nikolayuk and others at the RCA broadcast antenna
> design center and test range at Gibbsboro, NJ . Great facility in those days.
>
> RF

_____

Very interesting, Richard, of all the years I've been on this NG you are the first RCA person I've met on the NG. What years were you with RCA?

While at the RCA Princeton Labs I also worked with O.M. (Woody) Woodward, Bruce Rankin, and Don Peterson. Perhaps you knew them. I joined RCA in 1949, transferred to the antenna lab in 1957, and later originated the antenna lab at the then new Astro-Electronics Division in Hightstown. Was located there until I retired to DeLand, Florida in 1980. While at Princeton I developed the entire antenna system for TIROS 1, the World's first weather satellite.

I never had the pleasure of meeting any of the guys at Gibbsboro, but the names of Matti and Oded came up quite often. I heard Woody and Jess Epstein talking with them on the phone quite frequently.

I also spent some time at Cherry Hill as part of a three-man team developing the 3.6 GHz dish used on Lunar Rover, the moon buggy. I performed all the final impedance and antenna pattern measurements on the three dishes prior to delivery to NASA.

Perhaps we can meet some day and discuss our experiences at RCA. I consider myself fortunate to have been there during the early days of space exploration, they were truly exciting days.

Walt, W2DU

2259. Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 13:21:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c695c0$1_2@spool9-west.superfeed.net>
Source record: 73874

The first example was much too easy. How about this one?

```
---50 ohm feedline---+---300 ohm feedline---
Pfwd1=100w--> Pfwd2 not given-->
<--Pref1=0w <--Pref2 not given
```

Given a Z0-match at point '+':
Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
Pref2, Vref2, Iref2, including magnitudes and phase angles
for all voltages and currents. Source is unknown. Load is
unknown. Lengths of feedlines are unknown.

Who thinks this one is impossible to solve?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2260. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 13:22:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c69612$1_2@spool9-west.superfeed.net>
Source record: 73875

Walter Maxwell wrote:
> Very interesting, Richard, of all the years I've been on this NG you are the
> first RCA person I've met on the NG.

But Walt, I was once W6RCA. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2261. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 13:59:31 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42c6af79_4@newsfeed.slurp.net>
Source record: 73887

"Walter Maxwell" wrote:
> Very interesting, Richard, of all the years I've been on this NG you are
> the first RCA person I've met on the NG. What years were you with RCA?

1965-1980. My position certainly was not as exalted as that of Epstein/Lewis/Siukola/Maxwell/et al, but I was fortunate enough to work with Siukola and Ben-Dov of Gibbsboro in developing and proving RCA's RF Pulse test equipment system used to evaluate and optimize broadcast TV antenna systems. This test system may be thought of as a "narrow-band TDR," in that it duplicates the spectrum of the standard TV signal, rather than using a bandwidth of maybe 100X that of the TV channel. Excess test bandwidth gives high pulse returns outside the TV channel -- which are valid, but unimportant to the performance of the antenna system.

RF

2262. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 13:59:33 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <b5xxe.22750$B_3.376@fe05.lga>
Source record: 73877

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c69612$1_2@spool9-west.superfeed.net...
> Walter Maxwell wrote:
>> Very interesting, Richard, of all the years I've been on this NG you are the
>> first RCA person I've met on the NG.
>
> But Walt, I was once W6RCA. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

'ya know, Cecil, yer right, how could I have overlooked you. In fact, I've
always wondered why you gave up that illustrious call sign.

Walt, W2DU

2263. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:03:11 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <C8xxe.22751$B_3.7324@fe05.lga>
Source record: 73878

Since the name of Dr. George H. Brown, of Brown, Lewis and Epstein is not well known in the amateur community, I would like to acquaint you with some of his other accomplishments that are well known in the engineering community, especially in the AM-FM-TV broadcast community. His name deserves attention in the amateur community as well.

In addition to his work that established the ground radial standards for AM broadcasting, he discovered the reason the early diamond-shaped tower radiators produced undesirable radiation characteristics, and proved experimentally that towers of uniform cross section solved the problem. As a result of his experimental proof, the FCC denied further use of the diamond shape tower, and has since required all AM BC antenna towers be of uniform cross section. He also developed sectionalized radiators for control of the elevation pattern.

He invented the ground-plane antenna for VHF/UHF use. He found that two radials were sufficient, but marketing people convinced him that the antennas would sell better with four.

With his famous 1937 paper, 'Directional Antennas' he established the basis for directional arrays used in thousands of AM broadcast stations.

He worked closely with John Kraus in the early days, and showed Kraus the importance of close spacing of elements in an array to increase the gain over that obtained with quarter-wave spacing. The result was Kraus' close spaced beam known as the 'W8JK' beam. Kraus gave this credit to Brown in his book, "Antennas."

He developed a method for RF heating, especially for the joining, or 'sewing' of plastic sheet material, a method that led to the development of microwave ovens.

As lead engineer in RCA's color television lab at the RCA Laboratories in Princeton, he successfully led the development of the present system color system used in all US tv operations, the NTSC system that permitted black and white receivers to see color transmissions in black and white, overturning the original FCC acceptance of the CBS spinning wheel system that would not permit black and white receivers to receive color transmissions.

George Brown retired as an Executive Vice President of RCA.

These are just a few of his noteworthy accomplishments as an extraordinary engineer.

Walt, W2DU

2264. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:13:48 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <wixxe.111456$tt5.10516@edtnps90>
Source record: 73879

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c68fed$1_1@spool9-west.superfeed.net...
> Frank wrote:
>> Cecil, How about a clue. Can we describe the discontinuity as a two port
>> [S] matrix? The squared magnitude of the "s" parameters does relate to
>> power in a two port network -- am I on the right track? I took your
>> hint, in a previous posting, and downloaded HP's 95-1. I thought I had a
>> copy, but it seems to have evaporated. Also noted your Pfwd2 = 156.25 W,
>> and Pref2 = 56.25 W. Is this type of reading not just a peculiarity of
>> thru-line wattmeters. I realize you can compute mag Gamma sub p, and
>> hence gamma sub v. Why doesn't somebody make a MathCAD NG? It would get
>> rid of all this ugly math.
>
> Hi Frank, the point is that the math is not ugly. Simple
> math, deductive reasoning, and a four-function calculator
> with square root is all one needs.
>
> ---50 ohm feedline---+---200 ohm feedline---
> Pfwd1=100w--> Pfwd2=156.25w-->
> <--Pref1=0w <--Pref2=56.25w
>
> Vfwd1 = SQRT(Pfwd1*Z01) at zero degrees = 70.7v at 0 deg
> Ifwd1 = SQRT(Pfwd1/Z01) at zero degrees = 1.4a at 0 deg
> (Vfwd1 and Ifwd1 are the reference phase angles.)
> Vref1 = 0 (given)
> Iref1 = 0 (given)
>
> Vfwd2 = SQRT(Pfwd2*Z02) at zero degrees = 176.8v at 0 deg
> Ifwd2 = SQRT(Pfwd2/Z02) at zero degrees = 0.88a at 0 deg
> Vref2 = SQRT(Pref2*Z02) at X degrees = 106v at 180 deg.
> Iref2 = SQRT(Pref2/Z02) at Y degrees = 0.53a at 0 deg.
>
> Note: For a Z0-match to exist:
> If Z02 > Z01, then X=180 degrees and Y=0 degrees
> If Z02 < Z01, then X=0 degrees and Y=180 degrees
> Vfwd2 and Vref2 have to add up to Vfwd1
> Ifwd2 and Iref2 have to add up to Ifwd1
>
> We didn't even have to calculate rho. This energy analysis
> works for all Z0-matched systems, the most common of
> amateur radio systems.

Hi Cecil, thanks for the info, I will study your response.
I did not mean that math is ugly, I meant that attempting to format in a

text file is ugly. It would be so nice if what we type on was a MathCAD sheet.

Regards,

Frank

2265. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:17:27 UTC
From: Dan Richardson <k6mhe>
Message-ID: <m88dc1tog1tmidg8plfjp5ja3a46tcnek8@4ax.com>
Source record: 73880

On Sat, 2 Jul 2005 10:03:11 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>These are just a few of his noteworthy accomplishments as an extraordinary
>engineer.

Yes Walter, luckily I have a copy of his autobiography "and part of
which I was" publish in the early 1980s. He surely had a full and
fruitful life.

Danny, K6MHE

2266. Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:22:51 UTC
From: none@none.com
Message-ID: <q58dc1hnec9cvkg4htcotpb99n0v2gglt8@4ax.com>
Source record: 73881

I want to raise the center of my 91 ft folded dipole to at least 35
feet. I live on the west coast of Florida with all the attendant
possibilites of hurricanes. I cannot afford a retractable tower and do
not have room for proper guy wires. I want to be able to put a pulley
at the top so I am able to lower the antenna in the event of high
winds. I have a cement block house with a roof peak of about 16 feet,
I would prefer not to have to pour a base for the "mast".
I would appreciate any advice on supporting the "mast" to the house
wall and what material to use for the "mast" so that it might not be
permanantly bent by 125 mph winds.

Any constructive help gratefully welcomed

2267. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:28:02 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <SpGdnVEiDMrEOVvfRVn-sg@comcast.com>
Source record: 73882

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:el5bc1hseukbfhdrgn1mjf5hlnp5feojue@4ax.com...
>I have a Cushcraft A3 beam on a crank up/tilt over tower. When I tilt
> it over, it still requires a ladder to work on it due to the length of
> the elements.
>
> What I would like to do is to be able to rotate it as though I were
> trying for vertical polarization before or during the tilt over
> process. That would bring the antenna to a "flat" attitude for
> maintenance and storm protection.
>
> Any thoughts? The usual old fashioned Ham parameters apply: Little
> cost as possible, build as much as I can my self, etc......
>
> BTW, I have several good TV rotators I might use, but none with a hole
> all the way through!
>
> de W8CCW
>
I have a Hygain TH3Mk4, which is on a 14 foot boom. What I do is to first rotate the antenna so that when the tower is tilted down, the antenna is pointed straight up, with the reflector parallel to the ground. I tilt the tower until the rotator is resting on the part of an 8 foot step ladder that the paint can is supposed to go on. This gives access to the reflector and driven element. At that point I would take the antenna off the boom if I had to do anything other than work on the feedline, but have had no reason to do that.

Here is something else you could try: drill a hole through the boom, mast, and mounting plate, and insert a 1/4 inch bolt through the whole thing. Now, remove the U bolts that fasten the plate to the mast. You can now swing the boom parallel to the mast. I don't need to do this for the HyGain, but it should work with the CushCraft.

Tam/WB2TT

2268. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:33:15 UTC
From: nm5k@wt.net
Message-ID: <1120314795.523639.121290@g49g2000cwa.googlegroups.com>
Source record: 73883

I have worked 10 watt
backpack stations in the UK when they were by the sea side. No hope to
do
so when they are inland.

Three or four weeks ago I drove down to the beach to do
some fishing, bbqing, and general r&r. Of course, I had my
radio. I pulled my truck right up next to the water. Didn't
bother throwing a "water" ground wire out. Just ran normal
with my "extended" 14 ft mobile whip. The coil 8 ft above the
base of the whip. 100w. Was yakking on 40m late at night, and among
all the stations, mostly home stations, some running power,
I was one of the loudest ones on the freq. Can't beat a good
saltwater location. :) Also, a mobile late at night on 40m,
generally is as good as most normal height dipoles, etc. In fact,
I had one guy do a test. He was in the house in FLA, and I wagered
that his signal would increase if he went to his mobile.
He did, and it did. MK

2269. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:39:33 UTC
From: nm5k@wt.net
Message-ID: <1120315173.111624.311850@g43g2000cwa.googlegroups.com>
Source record: 73884

A rat shack pushup pole, *properly* guyed, should do the
trick. I'm not sure about 125 mph winds though. I'm not
sure many would survive that...But... The pushup masts
are retractable. What I do when a hurricane is coming,
is to retract the mast down to it lowest level. That makes
it super strong, and being low, there is little risk. I've
had those masts ride out hurricanes, even all the way up.
But...It wasn't 125 mph though... Maybe 100-105 mph or so...
You can buy the brackets for the house.
MK

2270. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 14:54:12 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ha8dc1t78bp7aanetig9rq2h3mol5i4be9@4ax.com>
Source record: 73885

On Sat, 02 Jul 2005 05:31:02 GMT, Owen <owen@no.where> wrote:

>On Fri, 01 Jul 2005 20:56:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
>wrote:
>
>
>>Without wading throught the ASCII math, a couple of thoughts.
>
>I see someone else grizzling about the "ugly maths". Oh well...

I wasn't the only one?
>
>>
>>1. As Tom said, most references give the D of poly as 0.0002,
>>although the "Handbook of Coaxial Microwave Measurements" by General
>>Radio gives it as 0.0003.

0.0002 is from the ITT Handbook, fourth and fifth editions.
>
>Ok, as I posted in another msg, my figure came from the ITT Ref Hbk,
>and even at 2e-4, it comes short of being the entire explanation of G
>derived from published loss figures. I accept that the ITT book is
>much lower than others.
>
>Just Googling, I see Reg's site shows 2e-5,
>>
>>2. Again, without having followed the derivation, I find the k2
>>values to be different from those given by the handiwork of Dan,
>>AC6LA, in his XLZIZL.xls workbook or his TLdetails program. Dan used
>>published attenuation values and Excel regression analysis to
>>determine the values of k1 and k2. See:
>>
>
>Dans k2 figures are based on units of MHz and feet, mine are Hz and
>metres, and when you allow for the units base, they reconcile to
>within 1%.

Of course. But I said that I didn't wade throught the numbers [g].

>
>>http://www.qsl.net/ac6la/bestfit.html
>>
>>3. Also, General Radio says, "alpha(diel) does not depend at all on
>>the dimensions of the line..." This suggests that there should be no
>>difference in k2 between LDF4-50 and LDF6-50.
>

>I believe that is true, my derivation is that k2=9.09e-8 * D /vf (for
>units of Hz and metres). So, the "leakage" loss depends on D and 1/vf
>(or permittivity**0.5), and dimensions don't enter the equation.
>
>What sent me down this track is trying to reconcile this with the
>published specs which claim more loss than is explained by the
>dielectric.
>
>> Dan's numbers show that
>>to be the case.
>
>Dan's figure (in my ZLZIZL) is, like mine, a little lower (25%) for
>the larger line. It is the observation that it varies that suggests
>there is more to it than D alone.

I admit I discount the last digit of preceison in the values. As Dan says so well in a note on his web site:

"Caution: The computed values for K1 and K2, like all computed results in both the XLZIZL package and the TLDetails program, are shown with a precision of a few digits beyond what is reasonable in normal engineering practice. This is done to allow you to spot trends and do theoretical studies. Don't allow yourself to become overly concerned with the exact values for K1 and K2. The loss characteristics for any transmission line will vary with manufacturing tolerances, age, bending, exposure to heat and sunlight, and even changes in the ambient temperature. The values used here, and indeed in any modeling package, must be considered as "best guess" estimates of the actual attenuation for any given line."

>
>Yes, see my other post regarding the LMR cables which, like the LDF
>series, show much less variation in k2 with cable size than moving
>from RG58C/U to RG213.

Another cautionary note:

While Dan was working on his programs we corresponded a lot via email. In one instance, he said "X" and I said "Y" about Heliax.

After some fussing around, we learned that my paper Andrew catalog no. 35 has different loss figures for the LDF series than does the "new" online catalog no. 38. As we would say in America, like trying to shoot at a moving target.

Also, from my catalog 35, Vp is given as:

LDF3-50 88%
LDF4-50 88%
LDF5-50 89%
LDF6-50 89%
LDF7-50 88%

So even that varies in a random fashion.

Regards,

Wes

2271. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 15:00:24 UTC
From: theposter <mailguy2004@yahoo.com>
Message-ID: <phlho4iughxw7qp.020720050800@kirk>
Source record: 73886

absolutely correct Hal, the chinese do not consider references to themselves and tea to be racist

but, the gay population in the USA does, and they are the ones calling all the shots these days

the latest controversy has started when one guy in another thread came up with a word problem about two gay tea bags getting married on a chinese persons table in china, that one is not expected to blow over soon, just best to be cautious and not mention any organic matter in the same reference with a particular race or geographic population

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message news:sTrxe.25551$Xv.16343@bignews4.bellsouth.net...
>I think we can do this without removing that part from the problem.
> Add the word "cup" after every word "China", and change the word
> "China" to
> "china" in the original problem.
> Add the word "a" before the word "china" . Then convert every letter
> to its
> ascii equivalent and add 13 to each, then replace the characters for
> the new
> ascii values, THEN sol\ve the problem given by Cecil in the first
> place.
> I was not aware that tea was a racist word in the context of the
> Peoples
> Republic of China.
> Do they not tax tea any longer because of that?
> Does that mean its racist (or "profiling") to speak of "Sweet Tea"
> (Iced
> Tea) and Southerners in the same sentence?
>
>
> "theposter" <mailguy2004@yahoo.com> wrote in message
> news:mtpzqhwu8mvjnab.010720052316@kirk...
>> by the way, that chinese&tea thing, that is considered as racist as
>> referring to blacks&watermelon
>>
>> you must remove that part from your word problem
>>
>> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
>> news:SIpxe.25293$Xv.15971@bignews4.bellsouth.net...
>> > But can you solve this:
>> > A frog is in the bottom of a 10-foot well can jump 3 ft, but
>> > every

>> > time he
>> > jumps 3 ft, he slides back down 2 feet.
>> > How many clothespins does the frog need to hang up 10 towels on
>> > the
>> > clothesline, if the boat can attain a forward speed of 10 mph as
>> > he
>> > crosses
>> > a river which is running at 5 mph, and the SWR on his analyzer is
>> > 1.1 to 1
>> > and the voltage drop across the frog's legs is 150 ohms, then
>> > what
>> > would the
>> > tax on a cup of tea cost in China when the frog gets to the top
>> > of
>> > the well.
>> >
>> >
>> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> > news:42c43383$1_1@spool9-west.superfeed.net...
>> >> It would be interesting to find out who, among the
>> >> experts on this group, cannot solve this problem
>> >> for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
>> >> Vref2, Iref2 including magnitudes and phase
>> >> angles.
>> >>
>> >> Given: a Z0-match at an impedance discontinuity in
>> >> a transmission line. Source is unknown. Load is
>> >> unknown. Lengths of transmission lines are unknown.
>> >> Reference phase: Vfwd1 is incident upon the Z0-match
>> >> at a reference phase angle of zero degrees.
>> >>
>> >> ---50 ohm feedline---+---200 ohm feedline---
>> >> Pfwd1=100w--> Pfwd2=156.25w-->
>> >> <--Pref1=0w <--Pref2=56.25w
>> >>
>> >> Contrary to what some people assert, is it possible
>> >> to calculate the magnitudes and phases of the
>> >> above voltages and currents knowing only the
>> >> Z0's and the forward and reflected powers?
>> >> --
>> >> 73, Cecil, http://www.qsl.net/w5dxp
>> >>
>> >> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure
>> >> Usenet
>> > News==----
>> >> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
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>> >> Encryption

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2272. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 15:12:38 UTC
From: "Edward A. Feustel" <efeustel@direcway.com>
Message-ID: <42c7153d$1_1@spool9-west.superfeed.net>
Source record: 73905

<nm5k@wt.net> wrote in message
news:1120315173.111624.311850@g43g2000cwa.googlegroups.com...
>A rat shack pushup pole, *properly* guyed, should do the
> trick. I'm not sure about 125 mph winds though. I'm not
> sure many would survive that...But... The pushup masts
> are retractable. What I do when a hurricane is coming,
> is to retract the mast down to it lowest level. That makes
> it super strong, and being low, there is little risk. I've
> had those masts ride out hurricanes, even all the way up.
> But...It wasn't 125 mph though... Maybe 100-105 mph or so...
> You can buy the brackets for the house.
> MK
>
>
It is not clear that Radio Shack sells the pushup masts anymore.
I got the last one at our store.

Rohn made them and they went bankrupt.

You might use Google to search the web for pushup antenna masts.

I used to use a wooden mast to support my folded dipole. it was based on a
mast in
the ARRL Handbook or Antenna book. It consisted of an 8 foot treated 2 by 4
planted in the ground. This was "double carriage bolted" to a pair of 20
foot pair of 2 by 4
which was double carriage bolded to a single 20 foot 2 by 4. At least 3
feet overlap
between sections is desired. I did not find it necessary to have a guy. I
attached the center of
the folded dipole to a hook at the top of the now 35 foot mast.

The only problem I see is the cross section of the 2 by 4 in 125 mile per
hour winds. If the lower
20 feet were up against the house, you might not have a problem. Otherwise
guys will be essential.
Probably 3 at the top of the pair of 2 by 4s and two (one to either flat
side) of the top piece.
Make certain that you get strong lumber, preferably not pine.

Regards,
Ed, N5EI

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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2273. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 15:45:40 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42c6b704_1@newsfeed.slurp.net>
Source record: 73888

"Wes Stewart"wrote:
> After some fussing around, we learned that my paper Andrew catalog no.
> 35 has different loss figures for the LDF series than does the "new"
> online catalog no. 38. As we would say in America, like trying to
> shoot at a moving target.

Yes, and Andrew sometimes changes their philosophy about specs to meet certain marketing realities. I was involved in a competitive situation where my proposal for an offshore broadcast RF system included some Andrew HeliaxT. The tender spec called for a certain power rating for the coax, which by its published catalog, Andrew did not meet for the line size they proposed to us as compliant. A similar line size by an EU Andrew competitor had been bid to the end user by another tenderer, which by their spec was compliant to the tender. The customer asked for clarificatication from us/Andrew. The difference was due to Andrew's inclusion in the spec of a solar derating value for their cable, where the competitor's did not. Andrew proved their point (through us), and my proposal won.

Not long after that, Andrew changed all the power ratings for their cable, removing the solar derating factor, and advising users to apply their own based on derating information they added to the catalog (similar to derating for SWR).

Also note that cable attenuation and power ratings are dependent on, and stated by most OEMs only for specific ambient temperatures and a specific load SWR (1:1 in the case of Andrew).

RF

2274. FREE Subscription to Ham Radio e-Zine - K9YA Telegraph

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 16:53:19 UTC
From: K9YA <no_reply@yahoo.com>
Message-ID: <3Ezxe.6769$RC6.2117@newssvr33.news.prodigy.com>
Source record: 73889

Check out the latest issue of the K9YA Telegraph:

Fishing for QSOs By Philip Cala-Lazar, K9PL

My Lucky Dayton Trip By Steve Wolfcale, N9WAT

Ham Radio and Scouting By Art Steinke, WB9JKY, trustee, W9BSA

They Could Have and Should Have By Rod Newkirk, VA3ZBB/W9BRD

Liverpool's Skyline to Flash Morse Code Messages

Morse Tips & Quips

Subscribe for FREE at http://www.k9ya.org

2275. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 18:49:56 UTC
From: Buck <iam@this.site>
Message-ID: <4eodc19qrjp629jgjgaah8rtn66an6uatn@4ax.com>
Source record: 73890

Install an elevation rotor.

On Fri, 01 Jul 2005 19:26:56 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>I have a Cushcraft A3 beam on a crank up/tilt over tower. When I tilt
>it over, it still requires a ladder to work on it due to the length of
>the elements.
>
>What I would like to do is to be able to rotate it as though I were
>trying for vertical polarization before or during the tilt over
>process. That would bring the antenna to a "flat" attitude for
>maintenance and storm protection.
>
>Any thoughts? The usual old fashioned Ham parameters apply: Little
>cost as possible, build as much as I can my self, etc......
>
>BTW, I have several good TV rotators I might use, but none with a hole
>all the way through!
>
>de W8CCW

--
73 for now
Buck
N4PGW

2276. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 18:59:36 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <mtodc1ttgro0kr04ht9vqjlcrlqvjns7al@4ax.com>
Source record: 73891

I had not thought about pointing it up/down, I was fixated on rolling
the boom. I will think on that.

Thanks!
John, de W8CCW

On Sat, 2 Jul 2005 10:28:02 -0400, "Tam/WB2TT" <t-tammaru@c0mca$t.net>
wrote:

>
>"John Ferrell" <johnferrell@sprintmail.com> wrote in message
>news:el5bc1hseukbfhdrgn1mjf5hlnp5feojue@4ax.com...
>>I have a Cushcraft A3 beam on a crank up/tilt over tower. When I tilt
>> it over, it still requires a ladder to work on it due to the length of
>> the elements.
>>
>> What I would like to do is to be able to rotate it as though I were
>> trying for vertical polarization before or during the tilt over
>> process. That would bring the antenna to a "flat" attitude for
>> maintenance and storm protection.
>>
>> Any thoughts? The usual old fashioned Ham parameters apply: Little
>> cost as possible, build as much as I can my self, etc......
>>
>> BTW, I have several good TV rotators I might use, but none with a hole
>> all the way through!
>>
>> de W8CCW
>>
>I have a Hygain TH3Mk4, which is on a 14 foot boom. What I do is to first
>rotate the antenna so that when the tower is tilted down, the antenna is
>pointed straight up, with the reflector parallel to the ground. I tilt the
>tower until the rotator is resting on the part of an 8 foot step ladder that
>the paint can is supposed to go on. This gives access to the reflector and
>driven element. At that point I would take the antenna off the boom if I had
>to do anything other than work on the feedline, but have had no reason to do
>that.
>
>Here is something else you could try: drill a hole through the boom, mast,
>and mounting plate, and insert a 1/4 inch bolt through the whole thing. Now,
>remove the U bolts that fasten the plate to the mast. You can now swing the
>boom parallel to the mast. I don't need to do this for the HyGain, but it
>should work with the CushCraft.
>
>Tam/WB2TT

>

2277. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 19:08:01 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <hbpdc1p895qhepg6aej5kehg0h58bqf98m@4ax.com>
Source record: 73892

I would rather not put a used rotor up there because of the
maintenence problems. However, I will dig out the specs on the boom
size and give it further thought.
Thanks,
John, de W8CCW

On 1 Jul 2005 22:37:40 -0700, "dutchman2u" <DUTCH@ELP.RR.COM> wrote:

>What size is your boom . you could use a U-100 aliance rotor they have
>a 1"5/8 hole throgh. You can find them on ebay for say 40-50 -or
>less. Make a T on the mask pipe and mount the rotor on it side use
>the clamps to the T and walla. roll it over vertial or horizonal a
>very easy fix only need 3or 4 wire to make it work . also u can
>insert a 15/8" in the middle of the boom .. pin it well if the boom is
>2" or more .. 73 Ralph

2278. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 19:12:14 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <topdc15lqvg3hfqle4snarps01dlhtm7s5@4ax.com>
Source record: 73893

I need to switch it bac & forth while on the tower.

On Sat, 02 Jul 2005 03:32:23 GMT, "Jer" <listme@listme.dsbl.org>
wrote:

>Why don't you just change it, its easy enough?
>
>Jer
>
>"Blue Dawg" <thecowboyace@yahoo.com> wrote in message
>news:1120273397.616570.229180@f14g2000cwb.googlegroups.com...
>> Joh, email me at thecowboyace@yahoo.com. I hate that name but it was
>> what a gal did to me when she set my computer up for me on the internet
>> and a site deal and some other crud and I'm sorta tied into that.
>> Cliff G.
>>
>

2279. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 19:15:35 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <UuSdnRAQdZu5dVvfRVn-rQ@comcast.com>
Source record: 73894

<nm5k@wt.net> wrote in message
news:1120315173.111624.311850@g43g2000cwa.googlegroups.com...
> A rat shack pushup pole, *properly* guyed, should do the
> trick. I'm not sure about 125 mph winds though. I'm not
> sure many would survive that...But... The pushup masts
> are retractable. What I do when a hurricane is coming,
> is to retract the mast down to it lowest level. That makes
> it super strong, and being low, there is little risk. I've
> had those masts ride out hurricanes, even all the way up.
> But...It wasn't 125 mph though... Maybe 100-105 mph or so...
> You can buy the brackets for the house.
> MK
>

Yes, Radio Shack used to carry them, but not any more, unless you just happen to find one in a store left over from when they had them. Someone said Lowes had them, but the stores in the S.F. Bay Area don't - - and in an on-line search of their stock they don't recognize the product, so maybe that's dated information, too. I suspect with cable and satellite, hardly anybody goes to the trouble of putting up an outside TV antenna any more, so from disuse, we may have lost that resource. There still might be masts available through small town TV installers in the fringe area around big cities, but I don't see anything on line except for Wholesale Electronics Inc who have no stock on hand. The latest manufacturer to take over some of the business from Rohn, Nello Corp. says they will have a line of telescoping masts in the Fall of 2005, so you might be able to get one then through Array Solutions on the West coast or AN Wireless in the East..

If anyone reading this has a 30 ft 3-section TV mast they're willing to sell for a reasonable price, I'd be interested myself.

73, Chuck W6PKP

2280. reflectivity of wire mesh (wire screen)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 19:52:29 UTC
From: Wimpie <wimtel@tetech.nl>
Message-ID: <1120333949.135501.228840@z14g2000cwz.googlegroups.com>
Source record: 73895

Hello,

Wire mesh or parallel bars are often used as a replacement for solid reflectors.

Is there any practical formula, computer program or graph for calculating the (plane wave) reflectivity/reflection coefficient of wire mesh (for example chicken mesh)?

I am thinking of a formula where you have to enter cell/grid size, wire thickness and frequency.

With kind regards,

Wim Telkamp

2281. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 20:23:32 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <8JCxe.1898$j04.12@newssvr21.news.prodigy.com>
Source record: 73896

59.43 Parsecs per millinea is the answer! (unless you want to convert it
into Furlongs per Fortnights)! NN7K

theposter wrote:
> by the way, that chinese&tea thing, that is considered as racist as
> referring to blacks&watermelon
>
> you must remove that part from your word problem
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:SIpxe.25293$Xv.15971@bignews4.bellsouth.net...
>
>>But can you solve this:
>>A frog is in the bottom of a 10-foot well can jump 3 ft, but every
>>time he
>>jumps 3 ft, he slides back down 2 feet.
>>How many clothespins does the frog need to hang up 10 towels on the
>>clothesline, if the boat can attain a forward speed of 10 mph as he
>>crosses
>>a river which is running at 5 mph, and the SWR on his analyzer is
>>1.1 to 1
>>and the voltage drop across the frog's legs is 150 ohms, then what
>>would the
>>tax on a cup of tea cost in China when the frog gets to the top of
>>the well.
>>
>>
>>"Cecil Moore" <w5dxp@hotmail.com> wrote in message
>>news:42c43383$1_1@spool9-west.superfeed.net...
>>
>>>It would be interesting to find out who, among the
>>>experts on this group, cannot solve this problem
>>>for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
>>>Vref2, Iref2 including magnitudes and phase
>>>angles.
>>>
>>>Given: a Z0-match at an impedance discontinuity in
>>>a transmission line. Source is unknown. Load is
>>>unknown. Lengths of transmission lines are unknown.
>>>Reference phase: Vfwd1 is incident upon the Z0-match
>>>at a reference phase angle of zero degrees.
>>>
>>>---50 ohm feedline---+---200 ohm feedline---
>>> Pfwd1=100w--> Pfwd2=156.25w-->

>>> <--Pref1=0w <--Pref2=56.25w
>>>
>>>Contrary to what some people assert, is it possible
>>>to calculate the magnitudes and phases of the
>>>above voltages and currents knowing only the
>>>Z0's and the forward and reflected powers?
>>>--
>>>73, Cecil, http://www.qsl.net/w5dxp
>>>
>>>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure
>>>Usenet
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>>News==----
>>
>>>http://www.newsfeeds.com The #1 Newsgroup Service in the World!
>>>120,000+
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>>>----= East and West-Coast Server Farms - Total Privacy via
>>>Encryption
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2282. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 20:25:30 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <78d25$42c6f83d$97d55b49$23718@ALLTEL.NET>
Source record: 73897

Good lord, everyone knows the answer is 42...

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:8JCxe.1898$j04.12@newssvr21.news.prodigy.com...
> 59.43 Parsecs per millinea is the answer! (unless you want to convert it
> into Furlongs per Fortnights)! NN7K
>
> theposter wrote:
> > by the way, that chinese&tea thing, that is considered as racist as
> > referring to blacks&watermelon
> >
> > you must remove that part from your word problem
> >
> > "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> > news:SIpxe.25293$Xv.15971@bignews4.bellsouth.net...
> >
> >>But can you solve this:
> >>A frog is in the bottom of a 10-foot well can jump 3 ft, but every
> >>time he
> >>jumps 3 ft, he slides back down 2 feet.
> >>How many clothespins does the frog need to hang up 10 towels on the
> >>clothesline, if the boat can attain a forward speed of 10 mph as he
> >>crosses
> >>a river which is running at 5 mph, and the SWR on his analyzer is
> >>1.1 to 1
> >>and the voltage drop across the frog's legs is 150 ohms, then what
> >>would the
> >>tax on a cup of tea cost in China when the frog gets to the top of
> >>the well.
> >>
> >>
> >>"Cecil Moore" <w5dxp@hotmail.com> wrote in message
> >>news:42c43383$1_1@spool9-west.superfeed.net...
> >>
> >>>It would be interesting to find out who, among the
> >>>experts on this group, cannot solve this problem
> >>>for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
> >>>Vref2, Iref2 including magnitudes and phase
> >>>angles.
> >>>
> >>>Given: a Z0-match at an impedance discontinuity in
> >>>a transmission line. Source is unknown. Load is
> >>>unknown. Lengths of transmission lines are unknown.
> >>>Reference phase: Vfwd1 is incident upon the Z0-match

> >>>at a reference phase angle of zero degrees.
> >>>
> >>>---50 ohm feedline---+---200 ohm feedline---
> >>> Pfwd1=100w--> Pfwd2=156.25w-->
> >>> <--Pref1=0w <--Pref2=56.25w
> >>>
> >>>Contrary to what some people assert, is it possible
> >>>to calculate the magnitudes and phases of the
> >>>above voltages and currents knowing only the
> >>>Z0's and the forward and reflected powers?
> >>>--
> >>>73, Cecil, http://www.qsl.net/w5dxp
> >>>
> >>>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure
> >>>Usenet
> >>
> >>News==----
> >>
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> >>>120,000+
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> >>Newsgroups
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> >>>----= East and West-Coast Server Farms - Total Privacy via
> >>>Encryption
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2283. Re: MOBILE ANTENNA MAGNETS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 20:28:04 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qMCxe.21664$qm.437@bignews5.bellsouth.net>
Source record: 73898

I may have generalized too much. Since I found old mag-mount cb antennas at flea markets and hamfests I assumed anyone could do the same. They were not sold as "magnets" - they were sold as old mag-mount cb antennas. The magnets just happened to be at the bottom of the antennas.
I suppose different flea markets have different offerings at different times.
I should not generalize. I should have given you a story of how I had found magnets, and infer that similar actions may have similar results.
My apologies.

"theposter" <mailguy2004@yahoo.com> wrote in message news:tdbv4i5bibvqlfw.010720052241@kirk...
> I have never seen magnets at those places. I have been too distracted
> by the "Magnificent Nuts" there, unless that was just a typo on your
> end, and that is what you were referring to.

2284. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 20:45:17 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <A0Dxe.21859$qm.16134@bignews5.bellsouth.net>
Source record: 73899

be careful attaching it to the house. The amount of overhang will affect
that task.
Take a look at the power company's service entrances to most homes. Most
will penetrate the roof and come down a wall. Some use "unistrut" and
"unistrut straps" to mount pipe to a wall - available at an Electrical
Supply house like Graybar. If you use 2" heavywall galvanized conduit - and
fill it with concrete, it will resist bending pretty good. Mount a pulley on
the top to raise the antenna.
If you try to attach the pipe to just a facia board, remember that the
facia board *could* come loose.

<none@none.com> wrote in message
news:q58dc1hnec9cvkg4htcotpb99n0v2gglt8@4ax.com...
> I want to raise the center of my 91 ft folded dipole to at least 35
> feet. I live on the west coast of Florida with all the attendant
> possibilites of hurricanes. I cannot afford a retractable tower and do
> not have room for proper guy wires. I want to be able to put a pulley
> at the top so I am able to lower the antenna in the event of high
> winds. I have a cement block house with a roof peak of about 16 feet,
> I would prefer not to have to pour a base for the "mast".
> I would appreciate any advice on supporting the "mast" to the house
> wall and what material to use for the "mast" so that it might not be
> permanantly bent by 125 mph winds.
>
> Any constructive help gratefully welcomed
>

2285. Re: MOBILE ANTENNA MAGNETS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 21:13:16 UTC
From: theposter <mailguy2004@yahoo.com>
Message-ID: <medsb1vae4ej18k.020720051413@kirk>
Source record: 73900

hal

you pegged me, i do frequent those places, the bargains are too good
to pass up

you can pickup very powerful magnets on ebay though, a guy may wish to
check that out

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:qMCxe.21664$qm.437@bignews5.bellsouth.net...
>
> I may have generalized too much. Since I found old mag-mount cb
> antennas at
> flea markets and hamfests I assumed anyone could do the same. They
> were not
> sold as "magnets" - they were sold as old mag-mount cb antennas. The
> magnets
> just happened to be at the bottom of the antennas.
> I suppose different flea markets have different offerings at
> different
> times.
> I should not generalize. I should have given you a story of how I
> had found
> magnets, and infer that similar actions may have similar results.
> My apologies.
>
>
> "theposter" <mailguy2004@yahoo.com> wrote in message
> news:tdbv4i5bibvqlfw.010720052241@kirk...
>> I have never seen magnets at those places. I have been too
>> distracted
>> by the "Magnificent Nuts" there, unless that was just a typo on
>> your
>> end, and that is what you were referring to.
>
>
>

2286. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 21:23:22 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <nc1ec1h5b03j85qnjlvbc3tmgiqg2pii86@4ax.com>
Source record: 73901

On Sat, 2 Jul 2005 16:45:17 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>be careful attaching it to the house. The amount of overhang will affect
>that task.
>Take a look at the power company's service entrances to most homes. Most
>will penetrate the roof and come down a wall. Some use "unistrut" and
>"unistrut straps" to mount pipe to a wall - available at an Electrical
>Supply house like Graybar. If you use 2" heavywall galvanized conduit - and
>fill it with concrete, it will resist bending pretty good. Mount a pulley on
>the top to raise the antenna.
> If you try to attach the pipe to just a facia board, remember that the
>facia board *could* come loose.
>
Hal,
I don't have an immediate need to put up a mast but like your idea
with the unistrut! Hope I remember it when I need it.

Howard

2287. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 21:29:23 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <1c1ec1lteinlroknug2egsva8sj7p6omdo@4ax.com>
Source record: 73902

On Sat, 2 Jul 2005 12:15:35 -0700, "Chuck Olson"
<chuckolson01@REMOVETHIScomcast.net> wrote:

>
><nm5k@wt.net> wrote in message
>news:1120315173.111624.311850@g43g2000cwa.googlegroups.com...
>> A rat shack pushup pole, *properly* guyed, should do the
>> trick. I'm not sure about 125 mph winds though. I'm not
>> sure many would survive that...But... The pushup masts
>> are retractable. What I do when a hurricane is coming,
>> is to retract the mast down to it lowest level. That makes
>> it super strong, and being low, there is little risk. I've
>> had those masts ride out hurricanes, even all the way up.
>> But...It wasn't 125 mph though... Maybe 100-105 mph or so...
>> You can buy the brackets for the house.
>> MK
>>
>
>Yes, Radio Shack used to carry them, but not any more, unless you just
>happen to find one in a store left over from when they had them. Someone
>said Lowes had them, but the stores in the S.F. Bay Area don't - - and in an
>on-line search of their stock they don't recognize the product, so maybe
>that's dated information, too. I suspect with cable and satellite, hardly
>anybody goes to the trouble of putting up an outside TV antenna any more, so
>from disuse, we may have lost that resource. There still might be masts
>available through small town TV installers in the fringe area around big
>cities, but I don't see anything on line except for Wholesale Electronics
>Inc who have no stock on hand. The latest manufacturer to take over some of
>the business from Rohn, Nello Corp. says they will have a line of
>telescoping masts in the Fall of 2005, so you might be able to get one then
>through Array Solutions on the West coast or AN Wireless in the East..
>
>If anyone reading this has a 30 ft 3-section TV mast they're willing to sell
>for a reasonable price, I'd be interested myself.
>
>73, Chuck W6PKP
>

Hmm, Radio Shack used to carry telescoping masts; no more though,
according to their web site. However, Lowe's Home Improvement does
list a guyed 30-foot telescoping mast. Probably special order.

Oh, well...

bob
k5qwg

2288. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 22:13:09 UTC
From: denton <news.my180.net>
Message-ID: <11ce4biofjggg74@corp.supernews.com>
Source record: 73903

See if a farm supply house or welding shop has some of those square steel tubing...they usually come in 22 ft lengths. You can then get one that will telescope in a slightly larger one.
A pier pad at the bottom should be enough to support the bottom and they are very stout, but still can be raised by one person, and you might find that kind of mast won't require guying.
<none@none.com> wrote in message
news:q58dc1hnec9cvkg4htcotpb99n0v2gglt8@4ax.com...
>I want to raise the center of my 91 ft folded dipole to at least 35
> feet. I live on the west coast of Florida with all the attendant
> possibilites of hurricanes. I cannot afford a retractable tower and do
> not have room for proper guy wires. I want to be able to put a pulley
> at the top so I am able to lower the antenna in the event of high
> winds. I have a cement block house with a roof peak of about 16 feet,
> I would prefer not to have to pour a base for the "mast".
> I would appreciate any advice on supporting the "mast" to the house
> wall and what material to use for the "mast" so that it might not be
> permanantly bent by 125 mph winds.
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> Any constructive help gratefully welcomed
>

2289. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 22:21:11 UTC
From: atec <atec77@XXXhotmail.com>
Message-ID: <42c712fb$1@dnews.tpgi.com.au>
Source record: 73904

none@none.com wrote:
> I want to raise the center of my 91 ft folded dipole to at least 35
> feet. I live on the west coast of Florida with all the attendant
> possibilites of hurricanes. I cannot afford a retractable tower and do
> not have room for proper guy wires. I want to be able to put a pulley
> at the top so I am able to lower the antenna in the event of high
> winds. I have a cement block house with a roof peak of about 16 feet,
> I would prefer not to have to pour a base for the "mast".
> I would appreciate any advice on supporting the "mast" to the house
> wall and what material to use for the "mast" so that it might not be
> permanantly bent by 125 mph winds.
>
> Any constructive help gratefully welcomed
>
If you can find a competent machinist in your area then purchase two
decent size pipes and have the machinist install a base seal so you can
force mains pressure into the base , the centre pipe will lift and then
can be locked at full height or dropped in moments.. hope you follow
what I mean .Ten metres is very achievable for little outlay , a simple
short guy and bracket to the house will strong if installed correctly ,
talk to a carpenter for good advice .Good luck.

2290. Re: reflectivity of wire mesh (wire screen)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 22:27:22 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ixExe.22955$B_3.3866@fe05.lga>
Source record: 73906

"Wimpie" <wimtel@tetech.nl> wrote in message
news:1120333949.135501.228840@z14g2000cwz.googlegroups.com...
> Hello,
>
> Wire mesh or parallel bars are often used as a replacement for solid
> reflectors.
>
> Is there any practical formula, computer program or graph for
> calculating the (plane wave) reflectivity/reflection coefficient of
> wire mesh (for example chicken mesh)?
>
> I am thinking of a formula where you have to enter cell/grid size, wire
> thickness and frequency.
>
> With kind regards,
>
> Wim Telkamp

If the cell dimension of the grid is 1/20 wl the grid is considered to be effective as a continuous reflective plane. The same dimension of spacing between parallel wires is also effective as a continuous reflector for EM waves whose polarization is parallel with the wires.

Walt, W2DU

2291. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 22:28:01 UTC
From: Owen <owen@no.where>
Message-ID: <d25ec1tnqdflgq0aimqgpi31cocpv20oj8@4ax.com>
Source record: 73907

On Sat, 02 Jul 2005 07:54:12 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>On Sat, 02 Jul 2005 05:31:02 GMT, Owen <owen@no.where> wrote:
>

>
>0.0002 is from the ITT Handbook, fourth and fifth editions.

Rechecking my sixth edition, it is 2e-4 at 100MHz, I need new glasses
for these books with tiny print.

Thanks... Owen
--

2292. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-02 23:23:35 UTC
From: Owen <owen@no.where>
Message-ID: <q75ec1hmd24l6centhtjgt4rn2uh6hojnd@4ax.com>
Source record: 73908

On Sat, 2 Jul 2005 11:15:29 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

...

Noted.

>The most accurate way to estimate D at HF is to measure attenuation
>versus frequency over a wide frequency range on several miles of solid
>polyethylene coaxial line.
>
>Then separate the constants A and B by plotting on graph paper
>Attenuation/Sqrt(F) versus Sqrt(F). and then do a few simple
>calculations.

Ok, as I stated earlier, I am working from published specs rather than
my own measurements, and I understand there are issues about the
reliability of published specs.

I didn't plot the values on graph paper to find A and B (or k1 and
k2), but used a least squares regression to find A and B (and r**2,
the correlation coefficient as an indicator of the quality of the
fit).

What I was trying to do was to develop an RLGC model for the line from
published figures (attenuation at spot frequencies, nominal Ro, vf),
and I can do that. The issue about the dielectric came up in trying to
reconcile the G / D / k2 figures with the knowledge that the cable had
PE dielectric and should have had D=2e-4 (I stand corrected on my
misreading of the value 2e-5 from my ITT Handbook by Wes - thanks).

The purpose of the model and validation are for my online transmission
line loss calculator.

The notes to the calculator show the modelled loss vs the data points
in one of the graphs at http://www.vk1od.net/tl/tllc.php .

>D can vary noticeably from one length of cable to another manufactured
>from a different batch of nominally identical materials.
>

Ok, noted. I have added a few words to the explanatory notes on the
calculator.

Thanks for the help all.

Owen
--

2293. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 00:41:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c7353d$1_2@spool9-west.superfeed.net>
Source record: 73909

Walter Maxwell wrote:
> 'ya know, Cecil, yer right, how could I have overlooked you. In fact, I've
> always wondered why you gave up that illustrious call sign.

A land of fruits and nuts call didn't fit very well in
Texas, :-) just kidding. I was first licensed as WN5DXP
in 1952 and just couldn't resist getting my old call
back when I moved back to the same land as I lived
on then, land homesteaded by my grandfather before
the 20th century.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2294. Tram Penetrator dipole and other things

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 02:31:29 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120357889.380362.40300@g49g2000cwa.googlegroups.com>
Source record: 73910

I made a dipole out of two Tram Penetrators and mounted them
horizontally. Seem to be doing a good job.

Located at

http://albums.photo.epson.com/j/AlbumIndex?u=4030688&a=31812523&f= is
everything that I have in my base station setup in a junk room. Will
be adding a rotator when I get my Maco Y Quad antenna set up. Maybe
I'll be able to get out and do some talking then.

I don't know what I am going to do with my antenna setup on my pickup.
I am running, now, as I originally started out with, a single Tram
Penetrator (Monkey Made - ran it a while co-phased but couldn't really
tell the difference in tx/rx AND robbed it cause I needed one more of
the Tram's to make up the horizontal dipole!) I have it mounted on the
side of my metal toolbox and it does a fantastic job. Only thing
is?!?! I am thinking of putting a 'tonneau?" cover?, youo know the hard
plastic shell that covers the complete bed. Where in the same hill
will I be able to put the Penetrator at?

Any and all suggestions will be greatly appreciated!
Take care God Bless
Cliff

2295. Re: Schematic drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 02:37:53 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120358273.636371.274120@g43g2000cwa.googlegroups.com>
Source record: 73911

I couldnt fomd wjat I was looking for. I know that I will have to
break down and buy the ARRL book and then some of the others.
thx though
tc gb
Cliff

2296. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 02:58:45 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <5pednSxq8vWryVrfRVn-rA@comcast.com>
Source record: 73912

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:1c1ec1lteinlroknug2egsva8sj7p6omdo@4ax.com...
> On Sat, 2 Jul 2005 12:15:35 -0700, "Chuck Olson"
> <chuckolson01@REMOVETHIScomcast.net> wrote:
>
> >
> ><nm5k@wt.net> wrote in message
> >news:1120315173.111624.311850@g43g2000cwa.googlegroups.com...
> >> A rat shack pushup pole, *properly* guyed, should do the
> >> trick. I'm not sure about 125 mph winds though. I'm not
> >> sure many would survive that...But... The pushup masts
> >> are retractable. What I do when a hurricane is coming,
> >> is to retract the mast down to it lowest level. That makes
> >> it super strong, and being low, there is little risk. I've
> >> had those masts ride out hurricanes, even all the way up.
> >> But...It wasn't 125 mph though... Maybe 100-105 mph or so...
> >> You can buy the brackets for the house.
> >> MK
> >>
> >
> >Yes, Radio Shack used to carry them, but not any more, unless you just
> >happen to find one in a store left over from when they had them. Someone
> >said Lowes had them, but the stores in the S.F. Bay Area don't - - and in
an
> >on-line search of their stock they don't recognize the product, so maybe
> >that's dated information, too. I suspect with cable and satellite, hardly
> >anybody goes to the trouble of putting up an outside TV antenna any more,
so
> >from disuse, we may have lost that resource. There still might be masts
> >available through small town TV installers in the fringe area around big
> >cities, but I don't see anything on line except for Wholesale Electronics
> >Inc who have no stock on hand. The latest manufacturer to take over some
of
> >the business from Rohn, Nello Corp. says they will have a line of
> >telescoping masts in the Fall of 2005, so you might be able to get one
then
> >through Array Solutions on the West coast or AN Wireless in the East..
> >
> >If anyone reading this has a 30 ft 3-section TV mast they're willing to
sell
> >for a reasonable price, I'd be interested myself.
> >
> >73, Chuck W6PKP
> >

>
> Hmm, Radio Shack used to carry telescoping masts; no more though,
> according to their web site. However, Lowe's Home Improvement does
> list a guyed 30-foot telescoping mast. Probably special order.
>
> Oh, well...
>
> bob
> k5qwg
>

Just as I thought, Bob, Lowes has you put in your zip code, and I tried my ex-wife's zip in Washington state - - and there it was - - but using my S.F. Bay Area zip and looking again - - gone.

Chuck W6PKP

2297. Re: reflectivity of wire mesh (wire screen)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 03:15:53 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <s3mec1h4g5pufugq29avrqesge4364cm5a@4ax.com>
Source record: 73913

On Sat, 2 Jul 2005 18:27:22 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>
>"Wimpie" <wimtel@tetech.nl> wrote in message
>news:1120333949.135501.228840@z14g2000cwz.googlegroups.com...
>> Hello,
>>
>> Wire mesh or parallel bars are often used as a replacement for solid
>> reflectors.
>>
>> Is there any practical formula, computer program or graph for
>> calculating the (plane wave) reflectivity/reflection coefficient of
>> wire mesh (for example chicken mesh)?
>>
>> I am thinking of a formula where you have to enter cell/grid size, wire
>> thickness and frequency.
>>
>> With kind regards,
>>
>> Wim Telkamp
>
>If the cell dimension of the grid is 1/20 wl the grid is considered to be
>effective as a continuous reflective plane. The same dimension of spacing
>between parallel wires is also effective as a continuous reflector for EM waves
>whose polarization is parallel with the wires.
>
>Walt, W2DU
>

I believe that when the openings in the grid are half of the
wavelength, half the signal (-3 dB) gets through and half is
reflected. As the gaps get smaller, more signal is reflected. I've
never seen a formula for it.

Bob McConnell
N2SPP

2298. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 04:23:37 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <gKJxe.25351$qm.5904@bignews5.bellsouth.net>
Source record: 73914

Just hook it up and see if it works.
If not, change one the "thingys" and try again.
Repeat until it works.
end loop

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c695c0$1_2@spool9-west.superfeed.net...
> The first example was much too easy. How about this one?
>
> ---50 ohm feedline---+---300 ohm feedline---
> Pfwd1=100w--> Pfwd2 not given-->
> <--Pref1=0w <--Pref2 not given
>
> Given a Z0-match at point '+':
> Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
> Pref2, Vref2, Iref2, including magnitudes and phase angles
> for all voltages and currents. Source is unknown. Load is
> unknown. Lengths of feedlines are unknown.
>
> Who thinks this one is impossible to solve?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2299. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 04:26:17 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JNJxe.23942$b_3.21074043@news.sisna.com>
Source record: 73916

Hal:

Could you explain that in less technical terms?

John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:gKJxe.25351$qm.5904@bignews5.bellsouth.net...
> Just hook it up and see if it works.
> If not, change one the "thingys" and try again.
> Repeat until it works.
> end loop
>
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42c695c0$1_2@spool9-west.superfeed.net...
>> The first example was much too easy. How about this one?
>>
>> ---50 ohm feedline---+---300 ohm feedline---
>> Pfwd1=100w--> Pfwd2 not given-->
>> <--Pref1=0w <--Pref2 not given
>>
>> Given a Z0-match at point '+':
>> Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
>> Pref2, Vref2, Iref2, including magnitudes and phase angles
>> for all voltages and currents. Source is unknown. Load is
>> unknown. Lengths of feedlines are unknown.
>>
>> Who thinks this one is impossible to solve?
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
>>
>> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure
>> Usenet
> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
>> >100,000
> Newsgroups
>> ---= East/West-Coast Server Farms - Total Privacy via Encryption
>> =---
>
>

2300. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 05:05:21 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11cesg3kgpbe56b@corp.supernews.com>
Source record: 73915

Dear Mark:
I had to look up your location in order to put your story into context.
You are in Texas.
Thanks for the story.
73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
<nm5k@wt.net> wrote in message
news:1120314795.523639.121290@g49g2000cwa.googlegroups.com...
> I have worked 10 watt
> backpack stations in the UK when they were by the sea side. No hope to
> do
> so when they are inland.
>
>
> Three or four weeks ago I drove down to the beach to do
> some fishing, bbqing, and general r&r. Of course, I had my
> radio. I pulled my truck right up next to the water. Didn't
> bother throwing a "water" ground wire out. Just ran normal
> with my "extended" 14 ft mobile whip. The coil 8 ft above the
> base of the whip. 100w. Was yakking on 40m late at night, and among
> all the stations, mostly home stations, some running power,
> I was one of the loudest ones on the freq. Can't beat a good
> saltwater location. :) Also, a mobile late at night on 40m,
> generally is as good as most normal height dipoles, etc. In fact,
> I had one guy do a test. He was in the house in FLA, and I wagered
> that his signal would increase if he went to his mobile.
> He did, and it did. MK
>

2301. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 06:26:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <da80fh$ma2$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73917

Owen,

Are you aware of programs -

RJELINE2, RJELINE3, for balanced pair lines,

and COAXPAIR, COAXRATE for coaxial lines ?

These are based on exact, classical transmission line formulae and
will tell you all you could wish to know about behaviour of
transmission lines versus any complex termination from open circuit to
short circuit. No approximation of critical parameters.

However, in the coaxial case, dielectric loss is an input quantity.
;o)

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2302. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 07:16:42 UTC
From: Owen <owen@no.where>
Message-ID: <ru1fc1plsfvgmak2m12d0pvdrpo4qpbthb@4ax.com>
Source record: 73918

On Sun, 3 Jul 2005 06:26:57 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Owen,
>
>Are you aware of programs -

Yes, of course, Reg, they and the rest of the suite are interesting...

In validating my calcualator, I have compared it to yours, Dan's
XLZIZL / TLD, Dean's TLA and Kevin's java applet. They all produce
slightly different results, one of the reasons I have tried to
document the assumptions that underly my calculator.

>
>RJELINE2, RJELINE3, for balanced pair lines,
>
>and COAXPAIR, COAXRATE for coaxial lines ?
>
>These are based on exact, classical transmission line formulae and
>will tell you all you could wish to know about behaviour of
>transmission lines versus any complex termination from open circuit to
>short circuit. No approximation of critical parameters.
>
>However, in the coaxial case, dielectric loss is an input quantity.
>;o)

Yes, I played with a model of Belden 8262, it is pasted below, and
will probably be line wrapped by a lot of news readers.

I have plugged in the dimensions from the 8262 spec sheet, and it
produces some results that are inconsistent with the specs. The
insulant diameter from the spec sheet is 4.5mm, loss/Km 13dB. (The
value for O was chosen to calibrate the DC loop resistance.) At 1GHZ,
the calculated loss was 35dB against spec of 21dB.

I played with it for a while trying to calibrate against the B8262
specs, but was unsuccessful.

Owen

N. Nominal Zo, ohms . 50.0 TERMINATION/LOAD -------------
ohms ---
D. Inner diameter, mm 0.889 R. Series Resistance
0.0
O. Outer thickness mm 0.080 X. Series Reactance
50.0

```
V. Velocity Factor Vf 0.6600 EQUIVALENT TERMINATION -------
ohms ---
T. Loss Factor ...... 0.000200 S. Shunt Resistance
2500000000.0
L. Line Length metres 100.000 Y. Shunt Reactance
50.0
F. Freq, kilo-Hertz . 1000.00
----------------------------- LINE CHARACTERISTICS
---------------------------
Insulant diameter 3.14 millimetres. Total Attn 10.5898
dB/kilo-m
Magnitude of Zo 51.79 ohms. Dielectric Loss 0.0275
dB/kilo-m
Angle of Zo -2.112 degrees. RF Resistance 0.1258
ohms/metre
Relative Velocity 0.6373 Inductance 0.2705
uH/metre
Electrical length 0.523 wavelengths. Capacitance 101.1476
pF/metre
DC Loop resistance 49.063 ohms/kilo-m. Conductance 0.1271
uS/metre
----------------------------- INPUT IMPEDANCE Zin
---------------------------
Series Resistance 16.51 ohms. Equivalent Shunt R 271.28
ohms
Series Reactance 64.86 ohms. Equivalent Shunt X 69.07
ohms
Magnitude of Zin 66.93 ohms. Angle of Zin 75.716
degrees
-------------------------- TRANSMISSION PERFORMANCE
--------------------------
Reflection coeff. 1.0375 Line loss when matched 1.0590
dB
Refl.coeff. angle 92.01 degrees. Actual line loss 70.8624
dB
VSWR at termination 54.296 Actual power loss in line 100.000
percent
VSWR at line input 9.696 Skin Depth 0.066 mm Q 13.5
Length = Q(1/4-wave) A(dd 1/4-wave) 3(dB) 6(0dB) =(.2%) -(.2%)
Hit N,D,O,V,T,L,F,R,X,S,Y to change data. B(egin again), E(xit
program)
```

--

2303. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 08:33:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11cf8n9cu87h933@corp.supernews.com>
Source record: 73919

If you want to work from published specs, you should find this interesting, from the Belden catalog:

It looks like 8214 and 9913F7 are the same except that 9913F7 has a solid aluminum shield between the insulation and the braided copper shield. 9913F7 claims lower loss, amounting to 0.9 dB at 400 MHz. One might conclude that the difference is due to the extra shield, presumably because it's smooth and not braided.

It looks like 9914 is the same as 9913F7 except that 9914 has a solid rather than stranded center conductor. The spec for 9914 shows less loss, amounting to 0.4 dB less at 400 MHz. One might conclude that the difference is due to stranded vs. solid center conductor.

I think your analysis isn't valid for two reasons. The first is that you're relying on published specifications. (For example, I just measured the Z0 of ten "50 ohm" cables of different brands and types I have on hand -- it ranged from 44.6 to 56.8 ohms. I already reported a loss measurement that was quite different from the spec.) The second is that your model is overly simplified. It looks like you're trying to account for all the loss mechanisms in a coax cable by considering only the dielectric and conductor losses in idealized materials, or at best two factors which are proportional to F and proportional to the square root of F. In order to get a decent fit, I think you'll have to include additional factors for such things as the effect of stranding the center conductor and the extra loss associated with a braided shield, which might well be different functions of frequency. Of course, tinned conductors, which are very common, will alter the loss characteristics depending on the composition of the plating, and change the shape of the loss vs. frequency curve at a frequency depending on the depth of the plating. Once you start really digging, I think you'll find other mechanisms, such as perhaps how tight a woven shield is -- it wouldn't take much of an air gap between the shield and the insulation to have some pretty noticeable effects.

I went through this excercise of attempting to predict coax cable loss many years ago (my notes say 1991) and abandoned the effort as being too time consuming. I hope you'll be willing to devote the time and effort necessary to come up with a reasonably accurate model.

Roy Lewallen, W7EL

2304. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 11:20:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <da8hl1$673$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73920

Roy said -
> I think your analysis isn't valid for two reasons. The first is that
> you're relying on published specifications. (For example, I just
> measured the Z0 of ten "50 ohm" cables of different brands and types
I
> have on hand -- it ranged from 44.6 to 56.8 ohms. I already reported
a
> loss measurement that was quite different from the spec.)

==========

The greatest source of divergence between manufacturers'
specifications and what you think you've actually got is due to
manufacturing variation in cable dimensions.

Such as :

Inner coaxial wire diameter as it is drawn through diamond dies.
Ovality of wire drawn through worn dies.
Tightness of stranded inner conductors affecting diameter.
Diameter over the extruded polyethylene insulant. Affected by
temperature.
Off-centre eccentricity of inner conductor within the insulant.
Ovality of the polyethylene extrusion.
Diameter of braiding wires.
Tightness of braid over polyethylene.
Longitudinal tension in braid.
Tightness of copper or aluminium tapes over polyethylene.
Tightness of PVC jacket or other protection over braid or tapes.

- and a dozen other dimensional factors which I have long forgotten.

There's also variation in the conductivity of annealed copper wire and
contaminants in polyethylene due to lack of cleanliness in storage.

During manufacture, as the product is drawn through machinery,
electrical characteristics change. They can become cyclic. When
measuring long lengths small reflections can accumulate causing
attenuation versus frequency curves to exhibit a slow ripple about the
average slope of A*Sqrt(F)+B*F dB.

(The most unreliable manufacturer's specification I have seen,
associated with attenuation and power rating, allowed cable to be used
at a temperature of the melting point of polyethylene. Would burn the
skin off your hands. Testing equipment????)

Important factors are the inevitable errors in all measuring
instruments, especially so-called SWR meters, and the delusions of
accuracy usually suffered by everybody involved. It's so easy to draw
the wrong conclusions!

Reg, G4FGQ

2305. Re: Brown, Lewis & Epstein

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 12:59:00 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <evnfc19ra8thlv3emkrkp2bd5gk4hdccuq@4ax.com>
Source record: 73921

On Thu, 30 Jun 2005 05:32:33 -0700, Dan Richardson
<k6mhe<at>arrl<dot>net> wrote:

>
>Therefore, I have placed on my web site a scanned copy of "Ground
>Systems As A Factor In Antenna Efficiency" by G.H. Brown, R.F. Lewis
>and J. Epstein which was publish by Institute of Radio Engineers in
>June 1937. This scanned copy is identical in format as a copy I
>obtained from the library.

I downloaded your PDF file and burned it to a disk. Very interesting
paper -- I can even understand much of it (I ain't no engineer) --
Intrigued by the picture of the "plow" they used to lay miles and
miles of radials -- wish I had one.

bob
k5qwg

>
>Be advised that you need Adobe Reader for viewing. Additionally, this
>is a rather large file (about 3MB).
>
>You may view this document at:
>
>http://users.adelphia.net/~k6mhe/BLE.html
>
>73,
>Danny, K6MHE

2306. Re: Tram Penetrator dipole and other things

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 13:04:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c7e352$1_2@spool9-west.superfeed.net>
Source record: 73922

Blue Dawg wrote:
> Where in the same hill will I be able to put the Penetrator at?

My GMC pickup has three trailer hitch holes. My
screwdriver is mounted in one of them.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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2307. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 13:23:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c7e7d4$1_2@spool9-west.superfeed.net>
Source record: 73923

Cecil Moore wrote:

> The first example was much too easy. How about this one?
>
> ---50 ohm feedline---+---300 ohm feedline---
> Pfwd1=100w--> Pfwd2 not given-->
> <--Pref1=0w <--Pref2 not given
>
> Given a Z0-match at point '+':
> Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
> Pref2, Vref2, Iref2, including magnitudes and phase angles
> for all voltages and currents. Source is unknown. Load is
> unknown. Lengths of feedlines are unknown.
>
> Who thinks this one is impossible to solve?

I just received an email from someone who solved it. Now
who says an energy analysis is impossible or meaningless?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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2308. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 13:25:40 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <lepfc1hqesbrm30p80minln6p169beobuf@4ax.com>
Source record: 73924

That would work. The problem that it is pricy (Yaesu-$320), heavy (8 pounds), may not be enough to handle an HF tribander.

On Sat, 02 Jul 2005 14:49:56 -0400, Buck <iam@this.site> wrote:

>Install an elevation rotor.
>
>On Fri, 01 Jul 2005 19:26:56 GMT, John Ferrell
><johnferrell@sprintmail.com> wrote:
>
>>I have a Cushcraft A3 beam on a crank up/tilt over tower. When I tilt
>>it over, it still requires a ladder to work on it due to the length of
>>the elements.
>>
>>What I would like to do is to be able to rotate it as though I were
>>trying for vertical polarization before or during the tilt over
>>process. That would bring the antenna to a "flat" attitude for
>>maintenance and storm protection.
>>
>>Any thoughts? The usual old fashioned Ham parameters apply: Little
>>cost as possible, build as much as I can my self, etc......
>>
>>BTW, I have several good TV rotators I might use, but none with a hole
>>all the way through!
>>
>>de W8CCW

2309. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 13:43:53 UTC
From: Buck <iam@this.site>
Message-ID: <jkqfc1dolraemsddgcbclbt85d5dhsuvpp@4ax.com>
Source record: 73775

On Sun, 03 Jul 2005 13:25:40 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>That would work. The problem that it is pricy (Yaesu-$320), heavy (8
>pounds), may not be enough to handle an HF tribander.
>
>On Sat, 02 Jul 2005 14:49:56 -0400, Buck <iam@this.site> wrote:
>
>>Install an elevation rotor.
>>

I had an Alliance Tenna Rotor for years. It worked well and only cost
$50 used.

The only other alternative might be to create yourself a bracket that
you can loosen. Lower the antenna part way, Loosen the bracket and
turn the antenna by hand. Then finish lowering the tower.

The only other alternative I see that you haven't rejected is to mount
the beam vertical and leave it that way when you raise the tower.

Good luck
N4PGW

--
73 for now
Buck
N4PGW

2310. Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 14:55:29 UTC
From: Dennis Gibbs <R390A@cox.net>
Message-ID: <I%Sxe.52790$R21.3417@lakeread06>
Source record: 73776
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

Hello all,

I am beginning the process of searching for some land on which to build a home. It will be located in the Pacific Northwest, in a fairly rural area. I expect to indulge myself heavily in my radio hobbies, including ham radio (especially on the HF bands) as well as a fair amount of Short Wave Listening. I would like to solicit advice on how to evaluate a potential location for quality of radio reception.

Aside from the obvious (i.e., a high elevation, away from high voltage power lines, plenty of room for antennas, etc.), are there any other attributes I should consider to ensure the location will be conducive to my radio activities?

Dennis
R390A@Cox.net

2311. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 15:05:32 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42c7f8f6.3567850@news.crosslink.net>
Source record: 73777

On Sat, 02 Jul 2005 08:21:07 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>The first example was much too easy. How about this one?
>
>---50 ohm feedline---+---300 ohm feedline---
> Pfwd1=100w--> Pfwd2 not given-->
> <--Pref1=0w <--Pref2 not given
>
>Given a Z0-match at point '+':
>Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
>Pref2, Vref2, Iref2, including magnitudes and phase angles
>for all voltages and currents. Source is unknown. Load is
>unknown. Lengths of feedlines are unknown.

Without disclosing the answers or the exact procedure for solving the
"brain teaser", I would like to draw attention to some of the implicit
relationships that "ought" to help.
1) It is assumed that both feelines have purely resistive
characteristic impedances (imaginary component, Xo, is zero).
2) Regardless of the length of the 300 ohm line and its termination
impedance, the standing wave pattern and the voltages and currents,
both incident and reflected as a function of distance x along that
line are determined completely by the requirement/condition that there
is a Z0 match at point "+".
3) There are an infinite number of lengths of the 300 ohm line and a
corresponding infinite number of termination impedances for that line
that will produce a Z0 match at point "+". However, because of (2),
above, some of those combinations are well known combinations with
well understood results (e.g., odd multiple of quarter wavelength or
an integer number of half wavelengths).
4) Due to conditions (1) and (2) above, the phase relations between
all of the voltages and currents immediately adjacent to either side
of point "+" are trivial (i.e., any two quantities chosen will be
either exactly in phase or exactly 180 degrees out of phase with one
another).

Due to (3) and (4) above, it would seem that an arbitrary choice of
either a quarter wave line with an 1800 ohm termination or a half wave
line with a 50 ohm termination would provide a convenient example with
which to begin an analysis. However, that is not necessary and only
provides a crutch to get off dead center.

If all of the above elements are kept in mind, then it becomes a
matter of solving a simple algebraic relationship involving 4

equations with 4 unknowns (the incident and reflected voltages and currents at the right hand side of point "+").

The actual numerical answer to such a problem is irrelevant. The points to be learned from all this are really the implicit relationships (2), (3) and (4) above. Without an understanding of those points, it is virtually impossible to even know where to start. I think that is the real point that Cecil is trying to make.

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2312. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 15:11:18 UTC
From: David <rickets@knac.com>
Message-ID: <ktvfc1h5ij2oa3cjcptuqs1ofpntmlneij@4ax.com>
Source record: 73778
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

On Sun, 3 Jul 2005 10:55:29 -0400, "Dennis Gibbs" <R390A@cox.net>
wrote:

>
>Hello all,
>
>I am beginning the process of searching for some land on which to build a
>home. It will be located in the Pacific Northwest, in a fairly rural area.
>I expect to indulge myself heavily in my radio hobbies, including ham radio
>(especially on the HF bands) as well as a fair amount of Short Wave
>Listening. I would like to solicit advice on how to evaluate a potential
>location for quality of radio reception.
>
>Aside from the obvious (i.e., a high elevation, away from high voltage power
>lines, plenty of room for antennas, etc.), are there any other attributes I
>should consider to ensure the location will be conducive to my radio
>activities?
>
>Dennis
>R390A@Cox.net
>
>
Why just ''high voltage'' power lines? I'd avoid all power lines.

2313. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 15:21:29 UTC
From: John Plimmer <plimmer@nospamtelkomsa.net>
Message-ID: <da901r$er7$1@ctb-nnrp2.saix.net>
Source record: 73779
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

Yes, the single most important location for outstanding DX on LF, MW and HF
is to site yourself right on the beach.
Much discussion has taken place about the "ideal" DX site and there is
considerable consensus among serious DXer's that DXing on the waters edge at
the beachside gives a major boost to signals.

Good luck in finding the Holy Grail of DX sites
--
John Plimmer, Montagu, Western Cape Province, South Africa
South 33 d 47 m 32 s, East 20 d 07 m 32 s
Icom IC-756 PRO III with MW mods
RX Drake R8B, SW8 & ERGO software
Sony 7600D GE SRIII
BW XCR 30, Braun T1000, Sangean 818 & 803A.
Hallicrafters SX-100, Eddystone 940
GE circa 50's radiogram
Antenna's RF Systems DX 1 Pro, Datong AD-270
Kiwa MW Loop
http://www.dxing.info/about/dxers/plimmer.dx

"Dennis Gibbs" <R390A@cox.net> wrote in message
news:I%Sxe.52790$R21.3417@lakeread06...
> Hello all,
>
> I am beginning the process of searching for some land on which to build a
> home. It will be located in the Pacific Northwest, in a fairly rural
area.
> I expect to indulge myself heavily in my radio hobbies, including ham
radio
> (especially on the HF bands) as well as a fair amount of Short Wave
> Listening. I would like to solicit advice on how to evaluate a potential
> location for quality of radio reception.
>
> Aside from the obvious (i.e., a high elevation, away from high voltage
power
> lines, plenty of room for antennas, etc.), are there any other attributes
I
> should consider to ensure the location will be conducive to my radio
> activities?
>
> Dennis
> R390A@Cox.net
>
>

2314. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 16:10:07 UTC
From: David <rickets@knac.com>
Message-ID: <bd3gc1p9pqikmel1m9r9mqasnb9lu8pn5h@4ax.com>
Source record: 73780
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

On Sun, 3 Jul 2005 17:21:29 +0200, "John Plimmer"
<plimmer@nospamtelkomsa.net> wrote:

>
>Yes, the single most important location for outstanding DX on LF, MW and HF
>is to site yourself right on the beach.
>Much discussion has taken place about the "ideal" DX site and there is
>considerable consensus among serious DXer's that DXing on the waters edge at
>the beachside gives a major boost to signals.
>
>Good luck in finding the Holy Grail of DX sites
Pacific Northwest is Tsunami Country. All the good cliffs are taken.

2315. Re: Butternut HF9V unwanted resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 16:41:59 UTC
From: helthansen@hotmail.com
Message-ID: <5a51d703.0507030841.7d4b2279@posting.google.com>
Source record: 73781

Hi.

I solved the problem by making an impedance packet like the two for 18
MHz and 24 MHz, tuned to 50 MHz and placed between the two existing
coils.
In this way I can move the unwanted resonance up to 50 MHz, where the
normal tuning of the antenna takes over.
I have now a fine SWR on 50 MHz.

Vy 73 de Gorm.

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<1cs2c1he4gob56tr3ipd67fgefivgdlsbn@4ax.com>...
> On 27 Jun 2005 23:55:20 -0700, helthansen@hotmail.com (Gorm
> Helt-Hansen) wrote:
>
> >It is ground mounted with 24 buried radials. I have tried with extra
> >radials cut for 50 MHz. If I make a short over the 18 MHz coil the 48
> >MHz resonance disappears and the SWR on 50 MHz is perfect. But it
> >don't work if I detune the coil, short some of the turns or remove the
> >capacity hat.
> >I have read on some newsgroups that other have had the same problem,
> >but I have never seen if they have solved it.
>
> Hi Gorm,
>
> You might try a couple of radials that are above ground level by 20cM
> or so and tune them. Your antenna is really designed to be mast
> mounted, and it would be better for 6M operation. The reason for this
> is that at ground level, 6M is seeing far more clutter from your
> house, garage and neighborhood, in its propagation characteristics.
>
> Propagation has nothing to do with the matching problem, but it is a
> matter of practical application. With a higher antenna, you can
> control the resonances of each band with tuned radials (which are not
> tuned so close to, or in ground). With a higher antenna, shorter
> wavelengths are impeded less by obstructions.
>
> 73's
> Richard Clark, KB7QHC

2316. Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 17:50:55 UTC
From: Pat Whelton <pwhelton@earthlinkNOSPAM.net>
Message-ID: <3AVxe.429$BK1.219@newsread3.news.pas.earthlink.net>
Source record: 73782

I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up 35 feet for about a year and a half now and I love this antenna. It's 66 feet in length and I can pretty much tune everything from 40 through 10 meters with a Dentron Super Tuner. This thing came with 50 feet of ladder line and I have it draped all over the place trying to take up the slack before it finally feeds into the shack.

My question is can I safely cut some of this excess ladder line off? I assume that it will impact the tuning but I'm also assuming the tuner will take care of it. I guess I can always cut it off and if it doesn't work I can wire nut it back together again. It just looks sloppy with all this extra feed line drooping off the roof and suspended by the fence (and over to grandma's house we go) before it finally comes into the shack.

Your thoughts are appreciated.

2317. Re: Radial Pattern For Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 18:03:31 UTC
From: nm5k@wt.net
Message-ID: <1120413811.399506.151300@g14g2000cwa.googlegroups.com>
Source record: 73783

I was at Quintana beach, at the mouth of the river.
Basically Freeport TX. I was parked on the beach, right
where the beach makes the turn north at the river, on the
east side of the river. Anywhere on the gulf coast is a good
place to play radio. It's all rated the top "30" rating as far as
ground conductivity. If you are nearly on the water like I was,
you can really brown the food with a good vertical. I had to
keep moving the truck up, as the tide kept coming up. Almost
got stuck once... :(BTW...The fishing that night was lousy...
I did much better at the BBQ and the radioing..MK

2318. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 18:30:33 UTC
From: mzenier@eskimo.com
Message-ID: <dabofkelp1@eskinews.eskimo.com>
Source record: 73807
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

In article <bd3gc1p9pqikmel1m9r9mqasnb9lu8pn5h@4ax.com>,
David <rickets@knac.com> wrote:
>On Sun, 3 Jul 2005 17:21:29 +0200, "John Plimmer"
><plimmer@nospamtelkomsa.net> wrote:
>
>>
>>Yes, the single most important location for outstanding DX on LF, MW and HF
>>is to site yourself right on the beach.
>>Much discussion has taken place about the "ideal" DX site and there is
>>considerable consensus among serious DXer's that DXing on the waters edge at
>>the beachside gives a major boost to signals.
>>
>>Good luck in finding the Holy Grail of DX sites

>Pacific Northwest is Tsunami Country. All the good cliffs are taken.

No kidding. If Guy Atkins and his friends are out at Greylands when
The Big One hits, they'll be operating maritime mobile. It's a good 3-5
miles to high ground, according to my DeLorme state atlas.

Mark Zenier mzenier@eskimo.com Washington State resident

2319. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 18:43:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c832be$1_2@spool9-west.superfeed.net>
Source record: 73785

W9DMK (Robert Lay) wrote:
> The actual numerical answer to such a problem is irrelevant. The
> points to be learned from all this are really the implicit
> relationships (2), (3) and (4) above. Without an understanding of
> those points, it is virtually impossible to even know where to start.
> I think that is the real point that Cecil is trying to make.

Actually, it is one mm broader than that. In the above analysis, an energy analysis works just as well as any other, contrary to the Sacred Cow Lamentations I and II of some experts on this newsgroup. There is so much redundancy built into the voltage, current, and power relationships in a transmission line that there are a number of valid ways to skin the cat. An energy analysis is one of those valid ways. Two people have sent me emails with correct solutions. Here's how to approach the solution from an energy standpoint.

---50 ohm feedline---+---300 ohm feedline---
Pfwd1=100w--> Pfwd2 not given-->
<--Pref1=0w <--Pref2 not given

rho=250/350=0.7143, rho^2 = 0.51, (1-rho^2) = 0.49
rho^2 is the power reflection coefficient.
(1-rho^2) is the power transmission coefficient.

Pfwd1*rho^2 = 100*0.51 = 51w reflected back toward the source at the match point. My article labels that quantity 'P3'

Pfwd1*(1-rho^2) = 100*0.49 = 49 watts transmitted through the match point toward the load. My article labels that quantity 'P1' (as does Dr. Best's QEX article).

For a match to exist Pref2(1-rho^2) must equal 51w, the part of Pref2 transmitted back through the match point, i.e. not re-reflected. My article labels that quantity 'P4'

That makes Pref2 = 51w/0.49 = 104.1w, and makes Pref2(rho^2) = 53.1w, the part initially re-reflected. My article labels that quantity 'P2' as does Dr. Best's QEX article.

So Pfwd2 = P1 + P2 + P3 + P4 = 49w + 53.1w + 51w + 51w = 204.1w

Who said powers can never be added? Pfwd2 is indeed 204.1w.

Now that we know all the powers (without knowing a single voltage) we can calculate the voltages and currents whose phase angles are all either zero degrees or 180 degrees. As Bob sez, phase

angles are trivial at a Z0-match point.

Is there anybody out there who still believes that an energy
analysis is impossible and/or "gobbledegook"?

Incidentally, the two 51w component powers represent the amount
of destructive interference energy involved in wave cancellation
and the amount of constructive interference energy re-reflected
toward the load as a result of that wave cancellation. This is
something that Dr. Best completely missed in his QEX article.
He correctly identified P1 and P2 but completely ignored P3 and P4.
Thus he came up with the equation: Ptot = 75w + 8.33w = 133.33w.
Remember that argument on this newsgroup from spring of 2001?
--
73, Cecil http://www.qsl.net/w5dxp

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2320. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 18:43:38 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <xkWxe.36733$Xv.11106@bignews4.bellsouth.net>
Source record: 73784

I would have used the term "Whatchacallit", but "thingy" seems to work.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:JNJxe.23942$b_3.21074043@news.sisna.com...
> Hal:
>
> Could you explain that in less technical terms?
>
> John
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:gKJxe.25351$qm.5904@bignews5.bellsouth.net...
> > Just hook it up and see if it works.
> > If not, change one the "thingys" and try again.
> > Repeat until it works.
> > end loop
> >
> >
> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> > news:42c695c0$1_2@spool9-west.superfeed.net...
> >> The first example was much too easy. How about this one?
> >>
> >> ---50 ohm feedline---+---300 ohm feedline---
> >> Pfwd1=100w--> Pfwd2 not given-->
> >> <--Pref1=0w <--Pref2 not given
> >>
> >> Given a Z0-match at point '+':
> >> Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
> >> Pref2, Vref2, Iref2, including magnitudes and phase angles
> >> for all voltages and currents. Source is unknown. Load is
> >> unknown. Lengths of feedlines are unknown.
> >>
> >> Who thinks this one is impossible to solve?
> >> --
> >> 73, Cecil http://www.qsl.net/w5dxp
> >>
> >>
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> >> =---
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> >
>
>

2321. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 18:44:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c832f4$1_2@spool9-west.superfeed.net>
Source record: 73786
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

David wrote:
> Why just ''high voltage'' power lines? I'd avoid all power lines.

Hard to do inside a house with power lines. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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2322. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 18:48:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c83404$1_2@spool9-west.superfeed.net>
Source record: 73787

Pat Whelton wrote:
> My question is can I safely cut some of this excess ladder line off? I
> assume that it will impact the tuning but I'm also assuming the tuner will
> take care of it.

May be a rash assumption. Trimming the feedline will change the
impedance the tuner sees and the tuner may (or may not) like the
new impedances. How about downloading the free demo version of
EZNEC from www.eznec.com and seeing for yourself what the
tuner will see?
--
73, Cecil http://www.qsl.net/w5dxp

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2323. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 19:11:42 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <jpbgc119mtkcb4m5bcfhs59v5d47b0hjuu@4ax.com>
Source record: 73788

On Sun, 03 Jul 2005 17:50:55 GMT, "Pat Whelton"
<pwhelton@earthlinkNOSPAM.net> wrote:

>I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up
>35 feet for about a year and a half now and I love this antenna. It's 66
>feet in length and I can pretty much tune everything from 40 through 10
>meters with a Dentron Super Tuner. This thing came with 50 feet of ladder
>line and I have it draped all over the place trying to take up the slack
>before it finally feeds into the shack.
>
>My question is can I safely cut some of this excess ladder line off? I
>assume that it will impact the tuning but I'm also assuming the tuner will
>take care of it. I guess I can always cut it off and if it doesn't work I
>can wire nut it back together again. It just looks sloppy with all this
>extra feed line drooping off the roof and suspended by the fence (and over
>to grandma's house we go) before it finally comes into the shack.
>
>Your thoughts are appreciated.

Cut it, there is nothing magic about 50' other than it's half of 100'.

BTW, is it really 600 ohm line or window line?

2324. Re: Rotate TriBand to vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 19:41:01 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <0jfgc1p7q6ilue7ll1mv3og6ih0gc4ejbd@4ax.com>
Source record: 73789

Thanks for the ideas. It takes a taller ladder than I like to loosen
the boom mount bolts. I may eventually work it out. Or, may be I will
live with what I have.

John, de W8CCW

On Sun, 03 Jul 2005 09:43:53 -0400, Buck <iam@this.site> wrote:

>On Sun, 03 Jul 2005 13:25:40 GMT, John Ferrell
><johnferrell@sprintmail.com> wrote:
>
>>That would work. The problem that it is pricy (Yaesu-$320), heavy (8
>>pounds), may not be enough to handle an HF tribander.
>>
>>On Sat, 02 Jul 2005 14:49:56 -0400, Buck <iam@this.site> wrote:
>>
>>>Install an elevation rotor.
>>>
>
>
>I had an Alliance Tenna Rotor for years. It worked well and only cost
>$50 used.
>
>The only other alternative might be to create yourself a bracket that
>you can loosen. Lower the antenna part way, Loosen the bracket and
>turn the antenna by hand. Then finish lowering the tower.
>
>The only other alternative I see that you haven't rejected is to mount
>the beam vertical and leave it that way when you raise the tower.
>
>Good luck
>N4PGW

2325. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 20:42:39 UTC
From: "Joe S." <nobody@nowhere.net>
Message-ID: <da9ijn02eo5@news4.newsguy.com>
Source record: 73790
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

"Dennis Gibbs" <R390A@cox.net> wrote in message
news:I%Sxe.52790$R21.3417@lakeread06...
> Hello all,
>
> I am beginning the process of searching for some land on which to build a
> home. It will be located in the Pacific Northwest, in a fairly rural
area.
> I expect to indulge myself heavily in my radio hobbies, including ham
radio
> (especially on the HF bands) as well as a fair amount of Short Wave
> Listening. I would like to solicit advice on how to evaluate a potential
> location for quality of radio reception.
>
> Aside from the obvious (i.e., a high elevation, away from high voltage
power
> lines, plenty of room for antennas, etc.), are there any other attributes
I
> should consider to ensure the location will be conducive to my radio
> activities?
>
> Dennis
> R390A@Cox.net
>
>

You need to drop by the local building codes office. Your home site will be located in a county or inside a city or town limit. Rules vary from place to place but every place has building codes and inspectors who inspect construction to ensure the codes are enforced.

Code enforcement varies from place to place -- I built houses in West Virginia, southwest Virginia, northeast Tennessee, and southeast Kentucky -- there were some counties where we never saw an inspector and the guy who issued our building permit at the county courthouse could not even read blueprint house plans -- but in other counties they inspected us at every turn.

If you are building in the county -- outside city or town limits -- the county will inspect you. If you are building inside a city or town limit, their inspectors will inspect your construction or they may use the county inspectors, or, your construction may be inspected by both county and town/city.

You need to check with the inspector's office or whichever office issues building permits to see if they enforce codes on towers and antennas. You may find that you can put up any tower, any height, anywhere you want -- or -- you may find that putting up even the simplest antenna support will require engineering drawings, environmental impact statement, and several inspections. Remember, too, if you are in the flight path of an airport, even a local grass strip, you will have height limits and lighting requirements on towers.

Also, you are likely to be wiring your house for a ham station, which means one room or one corner of the house will have several 110VAC outlets plus one or more 220VAC outlets for linear(s). The electrical inspector will find this strange and you need to talk with him BEFORE you even think about building so you get him on board with you -- he will tell you what the codes require so you don't have to rip out any wiring. Don't forget, too, that you will need some way for cables to go out of the house to the antennas -- and anytime you poke a hole in a wall, the inspectors get nosy -- you will need to ensure that the cable egress location has proper sealing, fire blocking, insulation, etc. Also, you'll need to ground the station -- talk to the inspector about that because he may look askance at a #4 copper wire running to a ground rod in addition to the one required at the entrance panel. Remember, too, when you start laying out your floor plan -- if you have water (a sink) within a few feet of the ham station, the outlets may be required to be GFCI protected -- and you don't want GFCI on your ham station outlets because you will forever be tripping the GFCI and shutting off the power -- so locate the ham station away from sinks and faucets.

Bottom line: Find your local building codes office and get to know them LONG before you select a building site.

--

Joe S.

2326. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 21:08:46 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c68ea$42c853df$471c63fb$4948@ALLTEL.NET>
Source record: 73791

50 foot is a neat length in that if you plot all the impedances at the
various bands you fill find a current max fairly close to 50 feet.

Cutting the length may move you closer to a match on some frequencies and
further away, and beyond the range of your tuner on others. I am not
familiar with the specs of your tuner so can not be more definitive.

All this being said, cut it, if your tuner matches it your golden. If not
reattach the cut section.

Take a look at Cecil's site, he has an antenna that he tunes via feedline
length. He has a number of graphs and a smith chart that will answer your
questions.
http://www.qsl.net/w5dxp/notuner.htm

"Pat Whelton" <pwhelton@earthlinkNOSPAM.net> wrote in message
news:3AVxe.429$BK1.219@newsread3.news.pas.earthlink.net...
> I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up
> 35 feet for about a year and a half now and I love this antenna. It's 66
> feet in length and I can pretty much tune everything from 40 through 10
> meters with a Dentron Super Tuner. This thing came with 50 feet of ladder
> line and I have it draped all over the place trying to take up the slack
> before it finally feeds into the shack.
>
> My question is can I safely cut some of this excess ladder line off? I
> assume that it will impact the tuning but I'm also assuming the tuner will
> take care of it. I guess I can always cut it off and if it doesn't work I
> can wire nut it back together again. It just looks sloppy with all this
> extra feed line drooping off the roof and suspended by the fence (and over
> to grandma's house we go) before it finally comes into the shack.
>
> Your thoughts are appreciated.
>
>

2327. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 21:40:53 UTC
From: Dan <diverd4778@aol.com>
Message-ID: <1120426853.436564.250940@g43g2000cwa.googlegroups.com>
Source record: 73792
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

Hi Dennis:

I would look into local Zoning laws to make sure someone won't build a Power line / Station / (etc) next to your home.

Hire an architect . Tell Him /her about what you want in the way of RF free wiring; Heck, approach an architect / EE instuctor at a local college & see if designing your RF free house electrical set up is a possible project for a student....

Do site surveys, with some wide range receiver, looking for noise where there should be none (Consult radio Astronomers for this ??)

Use a log book for problems / Pluses, then compare locations using a spread sheet.

If your house is in a rural area, RF Free, it's going to (Probably) be good for Astronomy as well.. Walking around the Moon with a telescope is always fun.

In closing, sounds like you have the world on a string; Congratulations !!

Dan / NYC

Dennis Gibbs wrote:
> Hello all,
>
> I am beginning the process of searching for some land on which to build a
> home. It will be located in the Pacific Northwest, in a fairly rural area.
> I expect to indulge myself heavily in my radio hobbies, including ham radio
> (especially on the HF bands) as well as a fair amount of Short Wave
> Listening. I would like to solicit advice on how to evaluate a potential
> location for quality of radio reception.
>
> Aside from the obvious (i.e., a high elevation, away from high voltage power
> lines, plenty of room for antennas, etc.), are there any other attributes I
> should consider to ensure the location will be conducive to my radio
> activities?
>
> Dennis
> R390A@Cox.net

2328. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 22:10:08 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <4nZxe.12578$jX6.11054@newsread2.news.pas.earthlink.net>
Source record: 73793

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c53602$1_1@spool9-west.superfeed.net...
> Kevin & Natalia wrote:
> > Hi All,
> >
> > I have just built a 20m dipole as a temp antenna for home.
> > I will be driving it with a TS-830 transceiver, which uses
> > valves in the final stage.
> > I know that I can only use it close to the cut frequency, but
> > want to build a small tuner to allow me to go off the cut slightly.
> > I only want the tuner to be used on 20m, so I do not need any
> > coil tapings for switching bands, so maybe a couple of caps will
> > do the job.

> > Look forward to any replies. Regards Kevin, ZL1KFM.
>
> Hi Kevin, feed it with 450 ohm ladder-line. Make the ladder-line
> length an integer number of 1/2 wavelengths. Then you can tune
> your antenna system to resonance without a tuner by adding one
> foot of ladder-line for lower frequency operation and subtracting
> one foot for higher frequency operation. Varying the length of
> the ladder-line by 0, 1, or 2 feet should cover the entire 20m
> band. My resonant frequencies are 0' = 14.34 MHz; 1' = 14.2 MHz;
> 2' = 14.1 MHz. Of course, it doesn't have to be in one foot
> increments. 35 cm increments might be better. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
Hi Cecil,

I know you like to tout ladder-line/tuned feeder as the solution for
everything from SHF to ingrown toenails... but don't you think you're
a bit over the top this time? Kevin should be able to get full-band
SWR under 1.5 using convenient coax feed, with no worries about
fussy window line, and no tuner of ANY kind, including tuned-feeder.
And you suggest he deliberately create a 5:1 or so SWR at the antenna
by using a mismatched feedline, just so he can have the joy of building
and using a tuned feeder??? Sheesh! Horses for courses, Cecil.

73, Ed

>
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2329. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 22:34:03 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <yJZxe.7466$394.5068@fe07.lga>
Source record: 73794

Pat, the correct length for a feedline is that which reaches from the feed point of the antenna to the terminals of the tuner.

Having used the Dentron Supertuner I doubt if you'll have any trouble matching any impedance you'll find at the input of the feed line.

If it doesn't match on any particular band there are four ways to achieve the match, depending on the specific impedance at the input of the line. Try a series cap in the line, or try a parallel cap across the line, or do the same thing with an inductor to see which works. It's cut and try, but it's better than having the line coiled up in the bathtub.

Walt, W2DU

2330. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 22:48:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <nXZxe.38694$J12.27178@newssvr14.news.prodigy.com>
Source record: 73795

W9DMK (Robert Lay) wrote:
> On Sat, 02 Jul 2005 08:21:07 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>The first example was much too easy. How about this one?
>>
>>---50 ohm feedline---+---300 ohm feedline---
>> Pfwd1=100w--> Pfwd2 not given-->
>> <--Pref1=0w <--Pref2 not given
>>
>>Given a Z0-match at point '+':
>>Solve for Vfwd1, Ifwd1, Vref1, Iref1, Pfwd2, Vfwd2, Ifwd2,
>>Pref2, Vref2, Iref2, including magnitudes and phase angles
>>for all voltages and currents. Source is unknown. Load is
>>unknown. Lengths of feedlines are unknown.
>
>
> Without disclosing the answers or the exact procedure for solving the
> "brain teaser", I would like to draw attention to some of the implicit
> relationships that "ought" to help.
> 1) It is assumed that both feelines have purely resistive
> characteristic impedances (imaginary component, Xo, is zero).
> 2) Regardless of the length of the 300 ohm line and its termination
> impedance, the standing wave pattern and the voltages and currents,
> both incident and reflected as a function of distance x along that
> line are determined completely by the requirement/condition that there
> is a Z0 match at point "+".
> 3) There are an infinite number of lengths of the 300 ohm line and a
> corresponding infinite number of termination impedances for that line
> that will produce a Z0 match at point "+". However, because of (2),
> above, some of those combinations are well known combinations with
> well understood results (e.g., odd multiple of quarter wavelength or
> an integer number of half wavelengths).
> 4) Due to conditions (1) and (2) above, the phase relations between
> all of the voltages and currents immediately adjacent to either side
> of point "+" are trivial (i.e., any two quantities chosen will be
> either exactly in phase or exactly 180 degrees out of phase with one
> another).
>
> Due to (3) and (4) above, it would seem that an arbitrary choice of
> either a quarter wave line with an 1800 ohm termination or a half wave
> line with a 50 ohm termination would provide a convenient example with
> which to begin an analysis. However, that is not necessary and only

> provides a crutch to get off dead center.
>
> If all of the above elements are kept in mind, then it becomes a
> matter of solving a simple algebraic relationship involving 4
> equations with 4 unknowns (the incident and reflected voltages and
> currents at the right hand side of point "+").
>
> The actual numerical answer to such a problem is irrelevant. The
> points to be learned from all this are really the implicit
> relationships (2), (3) and (4) above. Without an understanding of
> those points, it is virtually impossible to even know where to start.
> I think that is the real point that Cecil is trying to make.
>
> Bob, W9DMK, Dahlgren, VA
> Replace "nobody" with my callsign for e-mail
> http://www.qsl.net/w9dmk
> http://zaffora/f2o.org/W9DMK/W9dmk.html
>

Cecil already defined the voltage and current at
the match point when he gave the characteristic
impedances of the two lines and the rate of
energy transfer through them. Knowing the voltage
and current, anyone can calculate
Pfwd2 and Prev2 using Pfwd2 = |(V+IZ0)/2sqrt(Z0)|^2 and
Prev = |(V-IZ0)/2sqrt(Z0)|^2, where Z0 is the characteristic
impedance of the second transmission line.
Cecil's ability to add powers together, which he did in
this instance, isn't anything unique, and doesn't
really teach anything about the general case.
In fact, for a quarter wave transformer, you can
do the following trick: compute the value of the
power as it just comes through the impedance discontinuity
for the first time and call it Pa. Call Rho^2 at the
load P. Then the power delivered to the load will be
Pa(1 + P + P^2 + P^3 + P^4 ....) which looks the
same as if the power reflection coefficient looking
back toward the generator was 1 and the power at the
load was the result of the addition of an infinite
number of reflections. Such an interpretation, though,
can be shown to be absolutely wrong. Can anyone see why?
73,
Tom Donaly, KA6RUH

2331. Re: Modeling TL "dielectric" loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 22:53:11 UTC
From: Owen <owen@no.where>
Message-ID: <moqgc1d08p19h2p9jln9peuij75414saon@4ax.com>
Source record: 73796

On Sun, 3 Jul 2005 11:20:01 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Roy said -
>> I think your analysis isn't valid for two reasons. The first is that
>> you're relying on published specifications. (For example, I just
>> measured the Z0 of ten "50 ohm" cables of different brands and types
>I
>> have on hand -- it ranged from 44.6 to 56.8 ohms. I already reported
>a
>> loss measurement that was quite different from the spec.)
>
>=======================================
>
>The greatest source of divergence between manufacturers'
>specifications and what you think you've actually got is due to
>manufacturing variation in cable dimensions.
>

Thanks Roy and Reg,

I understand your point that the calculation engine is more precise
than the model accuracy (against specs), and the product manufacturing
tolerances introduce an even larger error in the predictions. Not
mentioned, but installation and through life degradation introduces
yet another uncertain and possibly greater issue.

Appreciate all the input.

I am sure you are right Roy, this could go on indefinitely. I think I
have gone far enough for the purpose, probably too far, but that is
the cost of confidence that I have gone far enough!

Thanks again.

Owen
--

2332. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-03 23:37:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c877bc$1_2@spool9-west.superfeed.net>
Source record: 73797

Old Ed wrote:
> And you suggest he deliberately create a 5:1 or so SWR at the antenna
> by using a mismatched feedline, just so he can have the joy of building
> and using a tuned feeder??? Sheesh! Horses for courses, Cecil.

I'm not familiar with the TS-830 so I assumed he had a real problem.
It's a sub-set of the same problem I solved with my 20m rotatable
dipole. I provided the same solution I presently use and with it he
gets the added bonus of 20m-10m operation. BTW, 13 cent/ft 450 ohm
ladder-line with a 9:1 SWR is a lot less lossy than 13 cent/ft coax
with an SWR of 1:1. He gets all band operation above 14 MHz and greater
efficiency for half the price. Why is that over the top? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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2333. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 00:17:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c88135$1_1@spool9-west.superfeed.net>
Source record: 73798

Tom Donaly wrote:
> Cecil's ability to add powers together, which he did in
> this instance, isn't anything unique, and doesn't
> really teach anything about the general case.

I'm glad you agree, Tom. Other experts on this newsgroup
will argue with you as they have with me for four years
ever since Dr. Best posted his infamous Z0-match equation:

Ptot = 75w + 8.33w = 133.33w

to which I objected back then, only to have most of
the rest of the posters agree with Dr. Best. I was
dumbfounded to see so many otherwise knowledgable
engineers agree to a violation of the principle of
conservation of energy. I was told not to worry about
conservation of energy - that it takes care of itself.

> In fact, for a quarter wave transformer, you can
> do the following trick: compute the value of the
> power as it just comes through the impedance discontinuity
> for the first time and call it Pa. Call Rho^2 at the
> load P. Then the power delivered to the load will be
> Pa(1 + P + P^2 + P^3 + P^4 ....) which looks the
> same as if the power reflection coefficient looking
> back toward the generator was 1 and the power at the
> load was the result of the addition of an infinite
> number of reflections. Such an interpretation, though,
> can be shown to be absolutely wrong. Can anyone see why?

Destructive interference between the external reflection
at the match point and the internal reflection from the
load supplies additional constructive interference
energy to the forward wave in the quarter wave transformer.
You didn't include that constructive interference energy
above. Hint: That virtual power reflection coefficient looking
rearward into the match point doesn't reach 1 until steady-
state is reached (wrong premise above). The virtual power
reflection coefficient looking forward into the match point
also doesn't reach 0 until steady-state is reached. Those
two virtual power reflection coefficients actually start out
the same value and proceed in opposite directions during
the transient buildup to steady-state.
--
73, Cecil http://www.qsl.net/w5dxp

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2334. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 00:25:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c882e3$1_1@spool9-west.superfeed.net>
Source record: 73799

Dan Richardson wrote:

> <eXseniorsDeleteThisAndTheX@earthlink.net> wrote:
>>I know you like to tout ladder-line/tuned feeder as the solution for
>>everything from SHF to ingrown toenails...
>
> My thoughts exactly, but more eloquently stated. <G>

I had no idea what a TS-830 was. I was just trying to be
helpful. And that's exactly the solution I use with my
SGC-500.
--
73, Cecil http://www.qsl.net/w5dxp

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2335. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 00:58:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <8R%xe.217$Tc6.201@newssvr13.news.prodigy.com>
Source record: 73800

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil's ability to add powers together, which he did in
>> this instance, isn't anything unique, and doesn't
>> really teach anything about the general case.
>
>
> I'm glad you agree, Tom. Other experts on this newsgroup
> will argue with you as they have with me for four years
> ever since Dr. Best posted his infamous Z0-match equation:
>
> Ptot = 75w + 8.33w = 133.33w
>
> to which I objected back then, only to have most of
> the rest of the posters agree with Dr. Best. I was
> dumbfounded to see so many otherwise knowledgable
> engineers agree to a violation of the principle of
> conservation of energy. I was told not to worry about
> conservation of energy - that it takes care of itself.
>
>> In fact, for a quarter wave transformer, you can
>> do the following trick: compute the value of the
>> power as it just comes through the impedance discontinuity
>> for the first time and call it Pa. Call Rho^2 at the
>> load P. Then the power delivered to the load will be
>> Pa(1 + P + P^2 + P^3 + P^4 ....) which looks the
>> same as if the power reflection coefficient looking
>> back toward the generator was 1 and the power at the
>> load was the result of the addition of an infinite
>> number of reflections. Such an interpretation, though,
>> can be shown to be absolutely wrong. Can anyone see why?
>
>
> Destructive interference between the external reflection
> at the match point and the internal reflection from the
> load supplies additional constructive interference
> energy to the forward wave in the quarter wave transformer.
> You didn't include that constructive interference energy
> above. Hint: That virtual power reflection coefficient looking
> rearward into the match point doesn't reach 1 until steady-
> state is reached (wrong premise above). The virtual power
> reflection coefficient looking forward into the match point
> also doesn't reach 0 until steady-state is reached. Those

> two virtual power reflection coefficients actually start out
> the same value and proceed in opposite directions during
> the transient buildup to steady-state.

Hi Cecil,
you come up with the right answer, but is your interpretation correct? Can you do the same thing in a general sense? If there is no Z0 match between the two transmission lines, does your method still work? The little conundrum I posed is an example of a procedure that will actually give the right answer, but the interpretation I gave of how it works is wrong. Can you be sure your method doesn't have the same flaw?
73,
Tom Donaly, KA6RUH
(P.S. The method of using V and I and the junction of the two xmission lines to find the forward and reverse powers on a transmission line doesn't prove the powers exist. It works just as easily with a pair of resistors and is more an algebraic stunt that works than anything else. It does agree with you, however.)

2336. Re: Can U solve this?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 03:47:24 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <fj2ye.22018$ro.12775@fed1read02>
Source record: 73801

This is solvable, you just need to figure out which unknown term to solve
for first.

Cecil Moore wrote:

> It would be interesting to find out who, among the
> experts on this group, cannot solve this problem
> for Vfwd1, Ifwd1, Vref1, Iref1, Vfwd2, Ifwd2,
> Vref2, Iref2 including magnitudes and phase
> angles.
>
> Given: a Z0-match at an impedance discontinuity in
> a transmission line. Source is unknown. Load is
> unknown. Lengths of transmission lines are unknown.
> Reference phase: Vfwd1 is incident upon the Z0-match
> at a reference phase angle of zero degrees.
>
> ---50 ohm feedline---+---200 ohm feedline---
> Pfwd1=100w--> Pfwd2=156.25w-->
> <--Pref1=0w <--Pref2=56.25w
>
> Contrary to what some people assert, is it possible
> to calculate the magnitudes and phases of the
> above voltages and currents knowing only the
> Z0's and the forward and reflected powers?

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2337. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 04:08:27 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <%C2ye.3504$8f7.978@newsread1.news.pas.earthlink.net>
Source record: 73802

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c877bc$1_2@spool9-west.superfeed.net...
> Old Ed wrote:
> > And you suggest he deliberately create a 5:1 or so SWR at the antenna
> > by using a mismatched feedline, just so he can have the joy of building
> > and using a tuned feeder??? Sheesh! Horses for courses, Cecil.
>
> I'm not familiar with the TS-830 so I assumed he had a real problem.
> It's a sub-set of the same problem I solved with my 20m rotatable
> dipole. I provided the same solution I presently use and with it he
> gets the added bonus of 20m-10m operation. BTW, 13 cent/ft 450 ohm
> ladder-line with a 9:1 SWR is a lot less lossy than 13 cent/ft coax
> with an SWR of 1:1. He gets all band operation above 14 MHz and greater
> efficiency for half the price. Why is that over the top? :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
Hi again, Cecil...

I think the "problem" here is that you tend to superimpose your
priorities over those of the original questioner:

"I know that I can only use it close to the cut frequency, but want
to build a small tuner to allow me to go off the cut slightly.
I only want the tuner to be used on 20m..."

Multiband operation, while desirable in my book, was not
something Kevin asked for. He also did not say he wanted
the cheapest possible feedline.

As to loss, if Kevin needs as much as 100 feet of feedline, and
wants to use a conveniently small cable like RG-8X, he can
expect to lose 1.5 dB or so. That might be a dB or so worse
than window line--if the latter is in a favorable environment.
Kevin would need mighty sharp ears to tell the difference.

73, Ed

>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
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> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2338. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 04:37:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c8bdea$1_1@spool9-west.superfeed.net>
Source record: 73803

Tom Donaly wrote:
> you come up with the right answer, but is your
> interpretation correct? Can you do the same thing in a
> general sense? If there is no Z0 match between the two
> transmission lines, does your method still work?

As a stand alone analysis, it yields two possible solutions
but the purpose of this discussion is not to come up with
a new stand alone method of analysis. The purpose is, given
a standard analysis, to add TRACKING OF THE ENERGY COMPONENTS
through an impedance discontinuity, something many people
believe to be impossible.

It wasn't designed to work as a stand alone analysis but
it does for Z0-matched systems, the most usual ham
configuration. However, an additional piece of information
is required in the general case to be able to tell which
voltage is leading and which is lagging.

> (P.S. The method of using V and I and the junction of
> the two xmission lines to find the forward and reverse
> powers on a transmission line doesn't prove the powers exist.

Do you think the powers defined in HP App Note 95-1 exist?
Remember my one second long transmission line example where
the number of stored joules exactly equaled the number of joules
required by the forward wave and the reflected wave? If the
energy is not in those waves, where is it? Nobody has
provided any explaination of how standing waves can exist
without forward and reflected waves. Under "standing wave",
The IEEE Dictionary says: "A pure standing wave results
from the interference of two oppositely directed traveling
waves of the same frequency and amplitude." i.e. standing
waves are the result (effect), two oppositely directed
traveling waves are the *cause*. Most of my references
agree. The forward and reflected wave energy components
must exist as causes before standing waves can materialize
as an effect.
--
73, Cecil http://www.qsl.net/w5dxp

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2339. Re: Tram Penetrator dipole and other things

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 06:34:10 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120458850.045354.231320@f14g2000cwb.googlegroups.com>
Source record: 73804

If I mount the Penetrator there, the very top of it might come even with the top of the cab. I have been told, by them, whomever them is, that the loading coil on any antenna needs to be above cab height Will I need to go to the old standby, the 102" stainless steel, DEFINITELY NOT ONE OF FIBERGLASS! I have seen a couple of advertisements for those. I just don't see how that, made of FG, antenna could ever last very long.

I wonder if taking a piece of conduit, I have an antenna mount that is made of 1" or so of metal, has the curves in it to mount on pipe and such. I would not be using the curved part but taking self-tapping screws screw that mount to 3/4" conduit or so and then mount that conduit to the bed of the truck, in between the cab and bed, before the cover was put on. Would use U-bolts to mount the conduit, a minimum of three of them. And by mounting it there, make the coil stick up XX above the cab of the truck

I am not familiar with a screwdriver antenna setup. Is it for 2-4-6 or even 10 meter?

2340. Re: MOBILE ANTENNA MAGNETS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 06:41:59 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120459319.057993.84510@o13g2000cwo.googlegroups.com>
Source record: 73805

I like the QuadMag that Bux Comm has. I dont work there. I've bought
a couple of mounts and one antenna from them and liked their service.
They have a setup that is either in chrome or black for $45. See them
@ http://www.buxcommco.com/antennas.htm

2341. Re: Tram Penetrator dipole and other things

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 13:00:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c933e3$1_1@spool9-west.superfeed.net>
Source record: 73806

Blue Dawg wrote:
> If I mount the Penetrator there, the very top of it might come even
> with the top of the cab. I have been told, by them, whomever them is,
> that the loading coil on any antenna needs to be above cab height.

Seems you might be talking vhf/uhf while I am talking HF.

> I am not familiar with a screwdriver antenna setup. Is it for 2-4-6 or
> even 10 meter?

It's all of HF. I am not familiar with the Penetrator.
--
73, Cecil http://www.qsl.net/w5dxp

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2342. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 17:33:58 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <hqeye.25122$ro.9659@fed1read02>
Source record: 73808
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

"Mark Zenier" <mzenier@eskimo.com> wrote in message
news:dabofkelp1@eskinews.eskimo.com...
> In article <bd3gc1p9pqikmel1m9r9mqasnb9lu8pn5h@4ax.com>,
> David <rickets@knac.com> wrote:
>>On Sun, 3 Jul 2005 17:21:29 +0200, "John Plimmer"
>><plimmer@nospamtelkomsa.net> wrote:
>>
>>>
>>>Yes, the single most important location for outstanding DX on LF, MW and
>>>HF
>>>is to site yourself right on the beach.
>>>Much discussion has taken place about the "ideal" DX site and there is
>>>considerable consensus among serious DXer's that DXing on the waters edge
>>>at
>>>the beachside gives a major boost to signals.
>>>
>>>Good luck in finding the Holy Grail of DX sites
>
>>Pacific Northwest is Tsunami Country. All the good cliffs are taken.
>
> No kidding. If Guy Atkins and his friends are out at Greylands when
> The Big One hits, they'll be operating maritime mobile.

Sounds like a old-style long-board might be good for that maritime mobile!

--
Ed
WB6WSN
El Cajon, CA USA

2343. Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 18:09:25 UTC
From: redhat <aezzat1@gmail.com>
Message-ID: <1120500565.034856.267090@g43g2000cwa.googlegroups.com>
Source record: 73809

what is the electrical length of a transmission line in degree?

regards

2344. Re: Evaluating location for radio activities

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 18:11:37 UTC
From: Lucky <lucky@TheBotStopsHere.com>
Message-ID: <11ciuur2ihrsfe2@corp.supernews.com>
Source record: 73810
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.shortwave

"John Plimmer" <plimmer@nospamtelkomsa.net> wrote in message
news:da901r$er7$1@ctb-nnrp2.saix.net...
> Yes, the single most important location for outstanding DX on LF, MW and
> HF
> is to site yourself right on the beach.
> Much discussion has taken place about the "ideal" DX site and there is
> considerable consensus among serious DXer's that DXing on the waters edge
> at
> the beachside gives a major boost to signals.
>
> Good luck in finding the Holy Grail of DX sites
> --
> John Plimmer, Montagu, Western Cape Province, South Africa
> South 33 d 47 m 32 s, East 20 d 07 m 32 s
> Icom IC-756 PRO III with MW mods
> RX Drake R8B, SW8 & ERGO software
> Sony 7600D GE SRIII
> BW XCR 30, Braun T1000, Sangean 818 & 803A.
> Hallicrafters SX-100, Eddystone 940
> GE circa 50's radiogram
> Antenna's RF Systems DX 1 Pro, Datong AD-270
> Kiwa MW Loop
> http://www.dxing.info/about/dxers/plimmer.dx
>
> "Dennis Gibbs" <R390A@cox.net> wrote in message
> news:I%Sxe.52790$R21.3417@lakeread06...
>> Hello all,
>>
>> I am beginning the process of searching for some land on which to build a
>> home. It will be located in the Pacific Northwest, in a fairly rural
> area.
>> I expect to indulge myself heavily in my radio hobbies, including ham
> radio
>> (especially on the HF bands) as well as a fair amount of Short Wave
>> Listening. I would like to solicit advice on how to evaluate a potential
>> location for quality of radio reception.
>>
>> Aside from the obvious (i.e., a high elevation, away from high voltage
> power
>> lines, plenty of room for antennas, etc.), are there any other attributes
> I
>> should consider to ensure the location will be conducive to my radio
>> activities?

>>
>> Dennis
>> R390A@Cox.net
>>
>>
>
>

Hi

I totally agree. I live a couple blocks from the beach, and when I take my portable down to the beach, I pick up tons of SSB frequencies. I mean a bunch. It's like the signals have an unobstructed line completely.

Lucky

2345. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 18:20:05 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42c97d01.539185@news.crosslink.net>
Source record: 73811

On 4 Jul 2005 11:09:25 -0700, "redhat" <aezzat1@gmail.com> wrote:

>what is the electrical length of a transmission line in degree?
>
>regards
>

Electrical Length in degrees = 360 degrees for each wavelength divided
by the velocity factor.
Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2346. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 18:43:09 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5rfye.3152$Sj4.4134049@news.sisna.com>
Source record: 73814

```
0.366L(feet)F(MHz)
L(degrees) = --------------------
VF

--or--
1.20L(meters)F(MHz)
L(degrees) = ----------------------
VF

John
"redhat" <aezzat1@gmail.com> wrote in message
news:1120500565.034856.267090@g43g2000cwa.googlegroups.com...
> what is the electrical length of a transmission line in degree?
>
> regards
>
```

2347. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 18:52:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dac0hibfc1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73812

> what is the electrical length of a transmission line in degree?
>
==========

It depends on frequency, its physical length and on its propagation
velocity.

Velocity Factor (VF) = Actual velocity on line / Velocity of light.

It is sometimes better to refer to length in wavelengths rather than
degrees.

One wavelength = 360 degrees. 1/4-wave line length = 90 degrees.

I'll leave somebody else to write down the actual formula for the
number of degrees in a given length of line in metres, at a given
frequency in MHz and given VF. I'm too tired.

Reg.

2348. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 18:58:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42c987cb$1_2@spool9-west.superfeed.net>
Source record: 73813

Reg Edwards wrote:
> I'm too tired.

Me too, Reg, too much vino. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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2349. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 19:15:10 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5Vfye.3754$tZ4.4598945@news.sisna.com>
Source record: 73815

Cecil:

I am growing rather suspicious of you here, we seem to only hear from
you when the wine glass (wine bottle?) is empty! <grin>

It does bypass the argument over if half-full or half-empty, which is
of a great practical assistance! <innocent look>

... and more wine has always fixed most of my perceived problems.
Well, at least it has worked as an immediate fix--not long term
however.

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c987cb$1_2@spool9-west.superfeed.net...
> Reg Edwards wrote:
>> I'm too tired.
>
> Me too, Reg, too much vino. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
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> Encryption =----

2350. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 19:40:05 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11cj44m9ef3lm4b@corp.supernews.com>
Source record: 73816

At 11 o'clock in the freakin' morning?

Jim

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42c987cb$1_2@spool9-west.superfeed.net...
> Reg Edwards wrote:
>> I'm too tired.
>
> Me too, Reg, too much vino. :-)
=----

2351. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 19:52:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <msgye.4495$816.5422193@news.sisna.com>
Source record: 73817

Jim:

Yeah. Cecil is getting old, you can tell, most of us got a jump on
that late hour.

In California we are given a two hour head start (by PST) just to keep
up with those texans! <stiff-upper-lip>

However, we don't pop the top on the bottle of viagra till 5 p.m.,
before that just isn't considered civilized!
<blue-tint-to-facial-features>

John

"RST Engineering" <jim@rstengineering.com> wrote in message
news:11cj44m9ef3lm4b@corp.supernews.com...
> At 11 o'clock in the freakin' morning?
>
> Jim
>
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42c987cb$1_2@spool9-west.superfeed.net...
>> Reg Edwards wrote:
>>> I'm too tired.
>>
>> Me too, Reg, too much vino. :-)
> =----
>
>

2352. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 22:32:04 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <ENiye.365$6%2.348@newssvr21.news.prodigy.com>
Source record: 73818

In terms that (here)can be understood-- Acting like a HI-"Q"
Circuit-- (Hell of a Capacity, and Damn little Resistance)!

Have fun! Jim NN7K

Cecil Moore wrote to Reg Edwards:

>> I'm too tired.
>
>
> Me too, Reg, too much vino. :-)

2353. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-04 23:54:18 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <86240$42c9cc2d$471c63fb$11132@ALLTEL.NET>
Source record: 73819

How long is a piece of string?

"redhat" <aezzat1@gmail.com> wrote in message
news:1120500565.034856.267090@g43g2000cwa.googlegroups.com...
> what is the electrical length of a transmission line in degree?
>
> regards
>

2354. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 00:34:27 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pAkye.9988$8Q.7821421@news.sisna.com>
Source record: 73821

Fred:

"How much string was on ball of string at the beginning" --MINUS--
"How much string is on the ball when you have cut the string off you need" = L(length of string)

gessh! amateurs really should know that formula!
<tongue-in-cheek>

I just hate having to unwind the ball, measure the string, then do it again after cutting!

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:86240$42c9cc2d$471c63fb$11132@ALLTEL.NET...
> How long is a piece of string?
>
> "redhat" <aezzat1@gmail.com> wrote in message
> news:1120500565.034856.267090@g43g2000cwa.googlegroups.com...
>> what is the electrical length of a transmission line in degree?
>>
>> regards
>>
>
>

2355. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 00:40:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <dGkye.10111$EQ.7831712@news.sisna.com>
Source record: 73726

Fred:

I should have pointed out: It is easier and quicker to work with small balls, than large balls--of string.

The women seem especially good when it comes to this, I am studying them closely to see why. <dirty-old-man-type-grin>

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message news:86240$42c9cc2d$471c63fb$11132@ALLTEL.NET...
> How long is a piece of string?
>
> "redhat" <aezzat1@gmail.com> wrote in message
> news:1120500565.034856.267090@g43g2000cwa.googlegroups.com...
>> what is the electrical length of a transmission line in degree?
>>
>> regards
>>
>
>

2356. Mosely TA-33M info help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 01:28:33 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <8nlye.7396$Eo.5443@fed1read04>
Source record: 73820

I just picked up a TA-33M in great shape for $100. Got 30' of Rohn 25G for another $60. I marked all the components so there will be no cunfusion but I am unclear on one point.

I've got the locations of all elements marked but I need to know if the driven element is closer to the reflector or the director? I've got the boom marked where the elements go but I forgot to put a mark as to which end of the boom is "forward" hence gets the director.

Also, how high (minimum) should this antenna go? I've got a friend who has one at 20' and he thinks I should try for twice that.

Help?
--
Just my 2...
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

2357. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 02:15:24 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c457b$42c9ed3f$471c63fb$21650@ALLTEL.NET>
Source record: 73822

The correct answer is "No, How Long is a Chinaman"

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pAkye.9988$8Q.7821421@news.sisna.com...
> Fred:
>
> "How much string was on ball of string at the beginning" --MINUS--
> "How much string is on the ball when you have cut the string off you
> need" = L(length of string)
>
> gessh! amateurs really should know that formula!
> <tongue-in-cheek>
>
> I just hate having to unwind the ball, measure the string, then do it
> again after cutting!
>
> John
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:86240$42c9cc2d$471c63fb$11132@ALLTEL.NET...
> > How long is a piece of string?
> >
> > "redhat" <aezzat1@gmail.com> wrote in message
> > news:1120500565.034856.267090@g43g2000cwa.googlegroups.com...
> >> what is the electrical length of a transmission line in degree?
> >>
> >> regards
> >>
> >
> >
>
>

2358. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 02:34:23 UTC
From: John <jwh_fla@hotmail.com>
Message-ID: <Wkmye.61939$%Z2.8135@lakeread08>
Source record: 73823
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

If an agent, a representative of an insurance company, sells and the company accepts a property then anything that happens (if fortuitous, or accidental) to that property is covered as long as it falls within the policy language, perils insured against and property covered.

The company can't come back AFTER a loss and deny payment because of something not defined in the policy. They can't just make it up after the fact.

73

"Rick Scott" <rickn7hj@gmail.com> wrote in message
news:VbWdnUxeUpeBQFjfRVn-2Q@comcast.com...
>> Unfortunately, your local agent will have little or no input into any
>> damage or property loss claim that you may make -- that is the adjusters
>> and claim reps --
>> a whole another breed of cat (and not the domestic kind).
>> If you get into personal injury or loss of life - it gets complicated
>> very quickly. Fortunate that you don't have close neighbors.
>>
>> gb
>
> Yep underwriters are more than willing to add things to make more bucks.
>
> Getting the claim later is an all together another proposition.

2359. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 03:26:30 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <ievjc1h8scbsmhqu6ii1be8h8mt8mr7fhn@4ax.com>
Source record: 73824

On Mon, 4 Jul 2005 22:15:24 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>The correct answer is "No, How Long is a Chinaman"
>
Yes, his is.

2360. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 03:30:58 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <X8nye.34929$qm.24764@bignews5.bellsouth.net>
Source record: 73725

Take the line outside at night where you can hear crickets chirp.
Count the number of times it chirps in 15 seconds, and add 40.
Thats the degrees. (temperature).
http://www.srh.noaa.gov/elp/wxcalc/formulas/cricketChirp.html
Now measure the transmission line,
Then get a copy of the ARRL Antenna Handbook
or the ARRL Amateur Radio handbook,
and find out why you asked the wrong question.

"redhat" <aezzat1@gmail.com> wrote in message
news:1120500565.034856.267090@g43g2000cwa.googlegroups.com...
> what is the electrical length of a transmission line in degree?
>
> regards
>

2361. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 05:53:34 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <lfpye.27243$ro.18610@fed1read02>
Source record: 73728
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"John" <jwh_fla(nospam)@hotmail.com> wrote in message
news:Wkmye.61939$%Z2.8135@lakeread08...
> If an agent, a representative of an insurance company, sells and the
> company accepts a property then anything that happens (if fortuitous, or
> accidental) to that property is covered as long as it falls within the
> policy language, perils insured against and property covered.
>
> The company can't come back AFTER a loss and deny payment because of
> something not defined in the policy. They can't just make it up after the
> fact.
>
> 73

I'll bet that there's "language in the policy" that is sufficiently vague and flexible such that the company can stretch a loophole for anything that it wants. Maybe I'm too paranoid, but the insurance company expects that an insured property is a normal and typical example of materials and construction, and that due care was applied to the design. Further, the property should be in compliance with local existing building codes and standards.

If you wired half your house with lamp cord, never got a permit, and have no record of inspection, do you think the company agent should know this by himself? If the loss is big enough, and especially if there's some unusual circumstances (fire inspector's report, neighbor's claims), then the company's lawyers have plenty of room to work in. You may have the utmost confidence in your own workmanship, but, if the insurance company is trying to avoid a $500k claim, all they have to do is say "no." So then what happens? You take the insurance company to court, and they ask you about your experience in soils engineering, concrete construction, structural engineering, calculation of wind loading, welding certifications, experience with lightning protection, etc. They will cut you up into very small pieces.

Everything unusual about your property should be defined, and if your agent is still eager to sell you a policy despite your "creative engineering", then I would start to wonder why the agent is so desperate to sell policies.

--
Ed
WB6WSN
El Cajon, CA USA

2362. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 05:55:10 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1120542910.186107.157070@g49g2000cwa.googlegroups.com>
Source record: 73727
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

John (nospam) wrote:
> If an agent, a representative of an insurance company, sells and the company
> accepts a property then anything that happens (if fortuitous, or accidental)
> to that property is covered as long as it falls within the policy language,
> perils insured against and property covered.
>
> The company can't come back AFTER a loss and deny payment because of
> something not defined in the policy. They can't just make it up after the
> fact.

sadly they can try and then it becomes a matter of Lawyers and the
roullete game that involves

>
> 73
>
> "Rick Scott" <rickn7hj@gmail.com> wrote in message
> news:VbWdnUxeUpeBQFjfRVn-2Q@comcast.com...
> >> Unfortunately, your local agent will have little or no input into any
> >> damage or property loss claim that you may make -- that is the adjusters
> >> and claim reps --
> >> a whole another breed of cat (and not the domestic kind).
> >> If you get into personal injury or loss of life - it gets complicated
> >> very quickly. Fortunate that you don't have close neighbors.
> >>
> >> gb
> >>
> > Yep underwriters are more than willing to add things to make more bucks.
> >
> > Getting the claim later is an all together another proposition.

2363. Re: Antenna Tuner for 20m Dipole - Build

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 07:07:51 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <42ca3e0c$1@news.iconz.co.nz>
Source record: 73729

Hi All,

Thanks for all the information, there was plenty to think about, and decide to do.

Just for the record, I wanted a simple dipole, using coax, as it is easier to work with in my home, no windows near to run ladder-line.
I do agree that ladder-line would of made it work better across other bands with a tuner, but I just wanted something on 20m.
The rig, TS-830S, being tube finals, from the information will allow me to tune off the cut frequency with tuning the tubes. So I will be able to move across the band without too much problem.

I have the dipole cut and ready to go up, was going to do it today, however the rain came down, and washed that idea away, have to wait for the weekend now.

Again thanks to all.

Kevin, ZL1KFM.

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message news:%C2ye.3504$8f7.978@newsread1.news.pas.earthlink.net...
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42c877bc$1_2@spool9-west.superfeed.net...
>> Old Ed wrote:
>> > And you suggest he deliberately create a 5:1 or so SWR at the antenna
>> > by using a mismatched feedline, just so he can have the joy of building
>> > and using a tuned feeder??? Sheesh! Horses for courses, Cecil.
>>
>> I'm not familiar with the TS-830 so I assumed he had a real problem.
>> It's a sub-set of the same problem I solved with my 20m rotatable
>> dipole. I provided the same solution I presently use and with it he
>> gets the added bonus of 20m-10m operation. BTW, 13 cent/ft 450 ohm
>> ladder-line with a 9:1 SWR is a lot less lossy than 13 cent/ft coax
>> with an SWR of 1:1. He gets all band operation above 14 MHz and greater
>> efficiency for half the price. Why is that over the top? :-)
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
> Hi again, Cecil...
>
> I think the "problem" here is that you tend to superimpose your
> priorities over those of the original questioner:
>
> "I know that I can only use it close to the cut frequency, but want

> to build a small tuner to allow me to go off the cut slightly.
> I only want the tuner to be used on 20m..."
>
> Multiband operation, while desirable in my book, was not
> something Kevin asked for. He also did not say he wanted
> the cheapest possible feedline.
>
> As to loss, if Kevin needs as much as 100 feet of feedline, and
> wants to use a conveniently small cable like RG-8X, he can
> expect to lose 1.5 dB or so. That might be a dB or so worse
> than window line--if the latter is in a favorable environment.
> Kevin would need mighty sharp ears to tell the difference.
>
> 73, Ed
>
>>
>> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
>> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---
>
>
>

2364. Re: A Single-Core 4:1 Current Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 07:23:06 UTC
From: W8JI <w8ji@contesting.com>
Message-ID: <1120548186.277018.174050@g44g2000cwa.googlegroups.com>
Source record: 73730

I think the basis of Chris' claims is that equal and opposite currents flowing in two parallel or concentric conductors makes it a "transmission line". I can give examples where that isn't true. In any conventional transformer with a load across the secondary, the secondary current will flow opposite the primary current based on Lenz's law. It is magnetic field coupling from aprimary to a secondary that causes that effect.

KD5WNA probably just didn't read the application note carefully, and missed that part 1 covers transmission line transformers and part 2 just transformers.

Every peer reviewed textbook I have that deals with transmission lines states they transfer energy via TEM mode (transverse electromagnetic mode, not electric magnetic as the "tutorial" by Trask states).

The key is all in the excitation and termination of the windings.

There is a great deal of difference in how energy gets from one place to the other in the two systems. That's why bandwidth is restricted in a conventional transformer mode, and loss over wide bandwidths is generally higher in a transformer rather than a transmission line mode of coupling.

The real title of Chris' tutorial should be "What I Think a Transmission Line Is", because that's all he really disagrees with me about. I think a transmission line conveys energy via TEM mode, he thinks it conveys energy through flux coupling. We simply have a disagreement of definitions. I was speaking very specifically about a balun Sevik described that would not provide a balanced current source. Chris has extracted certain sentences from a long exchange to prove some unimportant point about him being right and me being wrong, and totally skirted the issue of Sevik's design being flawed.

The tragedy of this is some people will think Sevik's design is a good one, because if Chris is right about this one thing I must be wrong about everything I said regarding Sevik's not-too-good balun suggestion.

73 Tom

2365. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 15:42:56 UTC
From: Hank Oredson <horedson@earthlink.net>
Message-ID: <4Uxye.1368$BK1.479@newsread3.news.pas.earthlink.net>
Source record: 73731
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Ed Price" <edprice@cox.net> wrote in message
news:Ifpye.27243$ro.18610@fed1read02...
>
> "John" <jwh_fla(nospam)@hotmail.com> wrote in message
> news:Wkmye.61939$%Z2.8135@lakeread08...
>> If an agent, a representative of an insurance company, sells and the
>> company accepts a property then anything that happens (if fortuitous, or
>> accidental) to that property is covered as long as it falls within the
>> policy language, perils insured against and property covered.
>>
>> The company can't come back AFTER a loss and deny payment because of
>> something not defined in the policy. They can't just make it up after the
>> fact.
>>
>> 73
>
> I'll bet that there's "language in the policy" that is sufficiently vague
> and flexible such that the company can stretch a loophole for anything
> that it wants. Maybe I'm too paranoid, but the insurance company expects
> that an insured property is a normal and typical example of materials and
> construction, and that due care was applied to the design. Further, the
> property should be in compliance with local existing building codes and
> standards.
>
> If you wired half your house with lamp cord, never got a permit, and have
> no record of inspection, do you think the company agent should know this
> by himself? If the loss is big enough, and especially if there's some
> unusual circumstances (fire inspector's report, neighbor's claims), then
> the company's lawyers have plenty of room to work in. You may have the
> utmost confidence in your own workmanship, but, if the insurance company
> is trying to avoid a $500k claim, all they have to do is say "no." So then
> what happens? You take the insurance company to court, and they ask you
> about your experience in soils engineering, concrete construction,
> structural engineering, calculation of wind loading, welding
> certifications, experience with lightning protection, etc. They will cut
> you up into very small pieces.
>
> Everything unusual about your property should be defined, and if your
> agent is still eager to sell you a policy despite your "creative
> engineering", then I would start to wonder why the agent is so desperate
> to sell policies.

Um ... let me guess ... you don't carry a general liability rider?
Or if you do, you were not careful to read the details?

They are not expensive, and will cover anything ... and can even
cover intentional neglegence by the owner. Every ham with a tower
(or a pool, or horses, or a big dog, or ...) should have one.

--

... Hank

http://home.earthlink.net/~horedson
http://home.earthlink.net/~w0rli

2366. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 16:00:56 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <42CAAF91.50507@yahoo.com>
Source record: 73732
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Hank Oredson wrote:
> "Ed Price" <edprice@cox.net> wrote in message
> news:Ifpye.27243$ro.18610@fed1read02...
>
>>"John" <jwh_fla(nospam)@hotmail.com> wrote in message
>>news:Wkmye.61939$%Z2.8135@lakeread08...
>>
>>>If an agent, a representative of an insurance company, sells and the
>>>company accepts a property then anything that happens (if fortuitous, or
>>>accidental) to that property is covered as long as it falls within the
>>>policy language, perils insured against and property covered.
>>>
>>>The company can't come back AFTER a loss and deny payment because of
>>>something not defined in the policy. They can't just make it up after the
>>>fact.
>>>
>>>73
>>
>>I'll bet that there's "language in the policy" that is sufficiently vague
>>and flexible such that the company can stretch a loophole for anything
>>that it wants. Maybe I'm too paranoid, but the insurance company expects
>>that an insured property is a normal and typical example of materials and
>>construction, and that due care was applied to the design. Further, the
>>property should be in compliance with local existing building codes and
>>standards.
>>
>>If you wired half your house with lamp cord, never got a permit, and have
>>no record of inspection, do you think the company agent should know this
>>by himself? If the loss is big enough, and especially if there's some
>>unusual circumstances (fire inspector's report, neighbor's claims), then
>>the company's lawyers have plenty of room to work in. You may have the
>>utmost confidence in your own workmanship, but, if the insurance company
>>is trying to avoid a $500k claim, all they have to do is say "no." So then
>>what happens? You take the insurance company to court, and they ask you
>>about your experience in soils engineering, concrete construction,
>>structural engineering, calculation of wind loading, welding
>>certifications, experience with lightning protection, etc. They will cut
>>you up into very small pieces.
>>
>>Everything unusual about your property should be defined, and if your
>>agent is still eager to sell you a policy despite your "creative
>>engineering", then I would start to wonder why the agent is so desperate
>>to sell policies.

>
>
>
> Um ... let me guess ... you don't carry a general liability rider?
> Or if you do, you were not careful to read the details?
>
> They are not expensive, and will cover anything ... and can even
> cover intentional neglegence by the owner. Every ham with a tower
> (or a pool, or horses, or a big dog, or ...) should have one.
>

Yes but you need everything first insurance with one company and then at
the maximum but the minimums. You pay dearly for a general liability
rider if you take it all into account. Yes you are protected.

2367. Re: Mosely TA-33M info help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 17:05:17 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <K7CdnZfEvvkxIFffRVn-rA@comcast.com>
Source record: 73733

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:8nlye.7396$Eo.5443@fed1read04...
>I just picked up a TA-33M in great shape for $100. Got
> 30' of Rohn 25G for another $60. I marked all the
> components so there will be no cunfusion but I am unclear
> on one point.
>
> I've got the locations of all elements marked but I need
> to know if the driven element is closer to the reflector or
> the director? I've got the boom marked where the elements
> go but I forgot to put a mark as to which end of the boom
> is "forward" hence gets the director.

You might want to go to their web site, and figure it out from the picture.
Look at the location of the mounting plate.
>
> Also, how high (minimum) should this antenna go? I've
> got a friend who has one at 20' and he thinks I should try
> for twice that.

That depends on whom you talk to. One rule of thumb is for the height to be
one wavelength. I have a TH3 at 40 feet, which would put it near optimum for
15 meters. I used to have a TA33JR at 28 feet, still had a lot of fun and
made lots of contacts on all three bands.

Tam/WB2TT
>
> Help?
> --
> Just my 2&#65533;... 73 es gd dx de Ken KG&#65533;WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>

2368. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 17:27:20 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <313030303837383542CAD10809@zetnet.co.uk>
Source record: 73734

> I want to raise the centre of my 91 ft folded dipole to at least 35
> feet. I live on the west coast of Florida with all the attendant
> possibilities of hurricanes. I cannot afford a retractable tower and do
> not have room for proper guy wires. I want to be able to put a pulley
> at the top so I am able to lower the antenna in the event of high
> winds. I have a cement block house with a roof peak of about 16 feet,
> I would prefer not to have to pour a base for the "mast".
> I would appreciate any advice on supporting the "mast" to the house
> wall and what material to use for the "mast" so that it might not be
> permanently bent by 125 mph winds.

> Any constructive help gratefully welcomed

Hey, I take it you guys don't have military surplus outlets? Surely !!
What about pump up field masts and the like.....

Otherwise square steel tube reducing in diameter size until you achieve the required total height. Using a piece of heavy steel plate, 900mmx900mm, obtain a 150mm length of box section just wider than your bottom box section piece and weld that section to the plate [your bottom section sits in this] Drill a hole straight through this to accommodate a bolt through both box sections [stops the section being lifted out] Weld a plate that will accommodate a galvanized hand winch [the type used on boat trailers] to the largest bottom section, weld an eye to the top smallest box section [the winching cable attaches to this] Leaving at least 600mm in each extended section, fabricate a collar that will lock each section in place as it is risen upwards [to stop it falling] Or weld two nuts on each top section side, drilling the centres away for a bolt/set screw to fix through, which will then stop the box sections from sliding back down. Choose a cable of suffcient winching breaking strain. Crank away until the desired height is obtained, locking each section in place. Reverse the procedure for dropping down. Attach any guy wires to additional eyes on various sections, which should be welded on at each section top. Choose a secure and fixed location for the floor plate. If you don't utilise or need a floor plate, fabricate fixings that will be able for the bottom section to be fixed to the wall [stand off's] Sounds a big job but it's easy done and not megga bucks either. Not knowing what a 125MPH hurricane is like in the UK, do's it make yer jowls chatter in the wind? LOL
Hey Bobs yer uncle, job done. Cheers Dave

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP

Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Don't.

2369. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 18:06:39 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <daer0k$bl5$3@ctb-nnrp2.saix.net>
Source record: 73736

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:X8nye.34929$qm.24764@bignews5.bellsouth.net...
> Take the line outside at night where you can hear crickets chirp.
> Count the number of times it chirps in 15 seconds, and add 40.
> Thats the degrees. (temperature).
> http://www.srh.noaa.gov/elp/wxcalc/formulas/cricketChirp.html

Ummmm..... You have to specify the species of cricket. Each species has a
characteristic chirp factor.
Also are your degrees F, C or K?

2370. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 19:44:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42cae42f_2@spool9-west.superfeed.net>
Source record: 73735
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Hank Oredson wrote:
> Um ... let me guess ... you don't carry a general liability rider?
> Or if you do, you were not careful to read the details?
>
> They are not expensive, and will cover anything ... and can even
> cover intentional neglegence by the owner. Every ham with a tower
> (or a pool, or horses, or a big dog, or ...) should have one.

... or kids.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2371. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 19:51:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <6xBye.14610$xO3.14771332@news.sisna.com>
Source record: 73737

Charlie:

Bet when you started out, you would never have thought so many petty hams existed.

All you need to do is beef up that setup a bit and smile at all the losers here. Jealous "old women hams" of a envious and vindictive nature.

Just laugh a bit when they sit out there eating the signal off the 90 foot beast.

Perhaps you can, once in a awhile, be kind and offer to, "Let them sit on it!" <grin>

John

"Charlie" <charlie@earthlink.com> wrote in message news:11bsdqpir7o54fa@news.supernews.com...
> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95
> ft. M2 2M9SSB beam antenna at 90 ft.
> The difference from antennas at around 30 ft to the same antennas at
> 90-95 ft is astonishing. Anyone considering raising their antennas
> should "just do it"
>
> 1. http://deepsouthnet.net/tower.html
>
> I am founder and net control for the Deep South 2 Meter SSB Net
> located in Union,Mississippi. Come join us 7 nights a week at 8:30PM
> CDT on 144.240 MHz USB. We have 10-15 or more check-ins nightly
> with 38 on our All Time Total Roster and nearly 25 on our Active
> Roster! The net has grown from it's first Roll Call on April
> 8,2005 at an amazing rate.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>

>

2372. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 22:14:20 UTC
From: Yodar <JStrain4@cfl.rr.com>
Message-ID: <0DDye.141591$VH2.135782@tornado.tampabay.rr.com>
Source record: 73738

Pat Whelton wrote:
> I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up
> 35 feet for about a year and a half now and I love this antenna. It's 66
> feet in length and I can pretty much tune everything from 40 through 10
> meters with a Dentron Super Tuner. This thing came with 50 feet of ladder
> line and I have it draped all over the place trying to take up the slack
> before it finally feeds into the shack.
>
> My question is can I safely cut some of this excess ladder line off? I
> assume that it will impact the tuning but I'm also assuming the tuner will
> take care of it. I guess I can always cut it off and if it doesn't work I
> can wire nut it back together again. It just looks sloppy with all this
> extra feed line drooping off the roof and suspended by the fence (and over
> to grandma's house we go) before it finally comes into the shack.
>
> Your thoughts are appreciated.
>
>
I'M SHOPPING FOR SUCH AN ANTENNA

Who sells it? specs, price etc.

remove nospam
Yodar in O'do
jstrain4nospam@cfl.rr.com

2373. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 23:02:23 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <WYGdnQuArOQejFbfRVn-sw@comcast.com>
Source record: 73739

CUT IT OFF

Pat Whelton wrote:

> I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up
> 35 feet for about a year and a half now and I love this antenna. It's 66
> feet in length and I can pretty much tune everything from 40 through 10
> meters with a Dentron Super Tuner. This thing came with 50 feet of ladder
> line and I have it draped all over the place trying to take up the slack
> before it finally feeds into the shack.
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> assume that it will impact the tuning but I'm also assuming the tuner will
> take care of it. I guess I can always cut it off and if it doesn't work I
> can wire nut it back together again. It just looks sloppy with all this
> extra feed line drooping off the roof and suspended by the fence (and over
> to grandma's house we go) before it finally comes into the shack.
>
> Your thoughts are appreciated.
>
>

2374. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-05 23:24:13 UTC
From: jgboyles@aol.com
Message-ID: <1120605853.135291.115510@z14g2000cwz.googlegroups.com>
Source record: 73740

Yodar wrote:
> Pat Whelton wrote:
> > I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up
> > 35 feet for about a year and a half now and I love this antenna. It's 66
> > feet in length and I can pretty much tune everything from 40 through 10
> > meters with a Dentron Super Tuner. This thing came with 50 feet of ladder
> > line and I have it draped all over the place trying to take up the slack
> > before it finally feeds into the shack.
> >
> > My question is can I safely cut some of this excess ladder line off? I
> > assume that it will impact the tuning but I'm also assuming the tuner will
> > take care of it. I guess I can always cut it off and if it doesn't work I
> > can wire nut it back together again. It just looks sloppy with all this
> > extra feed line drooping off the roof and suspended by the fence (and over
> > to grandma's house we go) before it finally comes into the shack.
> >
> > Your thoughts are appreciated.
> >
> >
> I'M SHOPPING FOR SUCH AN ANTENNA
>
> Who sells it? specs, price etc.
>
> remove nospam
> Yodar in O'do
> jstrain4nospam@cfl.rr.com

Yodar, where are you shopping? Go to Lowes or Home Depot and get #14
stranded wire, plexiglas for insulators, and screws, nuts and bolts to
put it together. Get some 450 ohm ladder line (Wireman, w7fg I think),
or make your own from wire and PVC from Lowes. To put the whole thing
together should be 30 minutes or less, I do it every year at field day.
Make the dipole as long and high (within reason) as you have room for,
and the 450 ohm line long enough to get from the antenna feedpoint to
your tuner. There you have what you have been shopping for.
Radioworks among other folks have pre-put together antennas, but
where is the fun in that?
Gary N4AST

2375. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 00:36:55 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <9e125$42cb27a9$471c63fb$19652@ALLTEL.NET>
Source record: 73741

You would be hard pressed to beat the VanGorden antenna. 130 foot stranded wire dipole with 100 feet of 450 Ohm ladder line. All insulators, ready to go for $29.95 delivered to your door.

"Yodar" <JStrain4@cfl.rr.com> wrote in message news:0DDye.141591$VH2.135782@tornado.tampabay.rr.com...
> I'M SHOPPING FOR SUCH AN ANTENNA
>
> Who sells it? specs, price etc.
>
> remove nospam
> Yodar in O'do
> jstrain4nospam@cfl.rr.com

2376. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 00:44:21 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11cmacogllv4q16@news.supernews.com>
Source record: 73742

Hi John and thanks for those remarks....

Well no I did not expect so many "petty hams" but it is just human nature
and the heart of man I suppose to be that way for some folks. Tropical
storm Cindy is coming our way now and I'll see how the tower holds up.

I can sure tell everyone and anyone that the difference from 30 ft to
90-95ft is really astonishing. I doubt this smile will leave my face for
some time. 73 / DX

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"John Smith" <assemblywizard@gmail.com> wrote in message
news:6xBye.14610$xO3.14771332@news.sisna.com...
> Charlie:
>
> Bet when you started out, you would never have thought so many petty hams
> existed.
>
> All you need to do is beef up that setup a bit and smile at all the losers
> here. Jealous "old women hams" of a envious and vindictive nature.
>
> Just laugh a bit when they sit out there eating the signal off the 90 foot
> beast.
>
> Perhaps you can, once in a awhile, be kind and offer to, "Let them sit on
> it!" <grin>
>
> John
>
> "Charlie" <charlie@earthlink.com> wrote in message
> news:11bsdqpir7o54fa@news.supernews.com...
>> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
>> 2M9SSB beam antenna at 90 ft.
>> The difference from antennas at around 30 ft to the same antennas at
>> 90-95 ft is astonishing. Anyone considering raising their antennas
>> should "just do it"
>>
>> 1. http://deepsouthnet.net/tower.html
>>

>> I am founder and net control for the Deep South 2 Meter SSB Net located
>> in Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on
>> 144.240 MHz USB. We have 10-15 or more check-ins nightly with 38 on our
>> All Time Total Roster and nearly 25 on our Active Roster! The net has
>> grown from it's first Roll Call on April 8,2005 at an amazing rate.
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>>
>>
>>
>>
>>
>>
>
>

2377. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 03:14:53 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <90jmc194dk5rsieg574n3mtdgbqvvmoh52@4ax.com>
Source record: 73743

On Tue, 05 Jul 2005 22:14:20 GMT, Yodar <JStrain4@cfl.rr.com> wrote:

>Pat Whelton wrote:
>> I've had a store bought (so sue me) dipole fed with 600 ohm ladder line up
>> 35 feet for about a year and a half now and I love this antenna. It's 66
>> feet in length and I can pretty much tune everything from 40 through 10
>> meters with a Dentron Super Tuner. This thing came with 50 feet of ladder
>> line and I have it draped all over the place trying to take up the slack
>> before it finally feeds into the shack.
>>
>> My question is can I safely cut some of this excess ladder line off? I
>> assume that it will impact the tuning but I'm also assuming the tuner will
>> take care of it. I guess I can always cut it off and if it doesn't work I
>> can wire nut it back together again. It just looks sloppy with all this
>> extra feed line drooping off the roof and suspended by the fence (and over
>> to grandma's house we go) before it finally comes into the shack.
>>
>> Your thoughts are appreciated.
>>
>>
>I'M SHOPPING FOR SUCH AN ANTENNA
>
> Who sells it? specs, price etc.
>
>remove nospam
>Yodar in O'do
>jstrain4nospam@cfl.rr.com

he probably has one of the 600-ohm fed dipoles from www.w7fg.com

try their web site.

there are also lots of dipole kits at www.thewireman.com

or get the arrl's antenna book & do-it-yrself. fun.

bob
k5qwg

2378. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 03:18:21 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <j8jmc1db4h2majdns4abanmkpp3f9qpqtq@4ax.com>
Source record: 73744

On Sat, 02 Jul 2005 14:22:51 GMT, none@none.com wrote:

>I want to raise the center of my 91 ft folded dipole to at least 35
>feet. I live on the west coast of Florida with all the attendant
>possibilites of hurricanes. I cannot afford a retractable tower and do
>not have room for proper guy wires. I want to be able to put a pulley
>at the top so I am able to lower the antenna in the event of high
>winds. I have a cement block house with a roof peak of about 16 feet,
>I would prefer not to have to pour a base for the "mast".
>I would appreciate any advice on supporting the "mast" to the house
>wall and what material to use for the "mast" so that it might not be
>permanantly bent by 125 mph winds.
>
>Any constructive help gratefully welcomed

There's a nice A-frame wood mast in the ARRL Handbook that's about 40
feet high, and can be made from just a few pieces of lumber.

Bob
k5qwg

2379. dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 03:20:23 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1120620023.203039.55420@g44g2000cwa.googlegroups.com>
Source record: 73745

Hi Group,

Let's say I have a 15 meter dipole. If I were to take a ferrite core and place a core along the dipole for the lenght of 6 meters, having two cores on either side.

The question is would this antenna now work as a dipole on 6 meters but not on 15 unless the reactance of the core was low at 21 MHz?

Does the core act as a RF block but not as a inductance with a reactance at 15meters?

If it is a inductive reactance, then reducting the lenght of the dipole would bring down swr on 15m.

I have seen the ferrite emi cores which clamp around the wire, would these work for 100 watts?

If I had a way to move the cores along the dipole, I could create a multiband antenna, true?

I am sure there are better ways to do such, aka trap dipole but I like to give this some thought.

De KJ4UO

2380. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 03:54:55 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <eBIye.40185$Tt.36707@bignews3.bellsouth.net>
Source record: 73746

>
> Ummmm..... You have to specify the species of cricket. Each species has a
> characteristic chirp factor.
> Also are your degrees F, C or K?
>

This is from
http://www.noblenet.org/reference/crickets.htm

The formula for this is to count the number of chirps in 15 seconds and add 39 to calculate the temperature (degrees Farenheit.) If there are 30 chirps in 15 seconds, the temperature should be about 69 degrees F. This formula is said to be accurate within one degree. A variation is to count the chirps in 13 seconds, and add 40.
Sources:
"Cricket thermometers," Field & Stream, July 1993, Vol. 98 Issue 3, p21.

and from http://www.almanac.com/outdoors/crickets.php

we have this:

To convert cricket chirps to degrees Fahrenheit, count number of chirps in
14 seconds then add 40 to get temperature.
Example: 30 chirps + 40 = 70° F

To convert cricket chirps to degrees Celsius, count number of chirps in 25
seconds, divide by 3, then add 4 to get temperature.
Example: 48 chirps /(divided by) 3 + 4 = 20° C

==========

there's apparently a small descrepancy (1 degree) in the sources.

2381. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 04:00:08 UTC
From: Arnold Schwarzenegger <arnie@terminators.org>
Message-ID: <ir7wmcjgcvulegj.050720052100@kirk>
Source record: 73747

only girly men count cricket chirps

arnold

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:eBIye.40185$Tt.36707@bignews3.bellsouth.net...
> >
>> Ummmm..... You have to specify the species of cricket. Each species
>> has a
>> characteristic chirp factor.
>> Also are your degrees F, C or K?
>>
>
> This is from
> http://www.noblenet.org/reference/crickets.htm
>
> The formula for this is to count the number of chirps in 15 seconds
> and add
> 39 to calculate the temperature (degrees Farenheit.) If there are 30
> chirps
> in 15 seconds, the temperature should be about 69 degrees F. This
> formula is
> said to be accurate within one degree. A variation is to count the
> chirps in
> 13 seconds, and add 40.
> Sources:
> "Cricket thermometers," Field & Stream, July 1993, Vol. 98 Issue 3,
> p21.
>
>
>
> and from http://www.almanac.com/outdoors/crickets.php
>
> we have this:
>
> To convert cricket chirps to degrees Fahrenheit, count number of
> chirps in
> 14 seconds then add 40 to get temperature.
> Example: 30 chirps + 40 = 700 F
>
> To convert cricket chirps to degrees Celsius, count number of chirps
> in 25
> seconds, divide by 3, then add 4 to get temperature.
> Example: 48 chirps /(divided by) 3 + 4 = 200 C
>

> ===========
>
> there's apparently a small descrepancy (1 degree) in the sources.
>
>
>

2382. Re: dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 06:47:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11cmvjb5jvlt692@corp.supernews.com>
Source record: 73748

The short answer is no. One of the best readily-available ferrites for VHF use is Fair-Rite type 61. At 6 meters, one core of this material will look like a resistor of a few ohms in parallel with an inductor whose reactance is also a few ohms. That combination won't do what you're asking.

Even if you locate a better material, you'll still only have a few ohms of reactance for a single core at that frequency, and the Q is likely to still be not very good. It'll be a long way from making a trap, which is what you're trying to do.

Roy Lewallen, W7EL

pdrunen@aol.com wrote:
> Hi Group,
>
> Let's say I have a 15 meter dipole. If I were to take a ferrite core
> and place a core along the dipole for the lenght of 6 meters, having
> two cores on either side.
>
> The question is would this antenna now work as a dipole on 6 meters but
> not on 15 unless the reactance of the core was low at 21 MHz?
>
> Does the core act as a RF block but not as a inductance with a
> reactance at 15meters?
>
> If it is a inductive reactance, then reducting the lenght of the dipole
> would bring down swr on 15m.
>
> I have seen the ferrite emi cores which clamp around the wire, would
> these work for 100 watts?
>
> If I had a way to move the cores along the dipole, I could create a
> multiband antenna, true?
>
> I am sure there are better ways to do such, aka trap dipole but I like
> to give this some thought.
>
> De KJ4UO
>

2383. Re: dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 11:47:55 UTC
From: Buck <iam@this.site>
Message-ID: <3ngnc1140l4nh70tcbhnogsferah3mip66@4ax.com>
Source record: 73749

On 5 Jul 2005 20:20:23 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
wrote:

>Hi Group,
>
>Let's say I have a 15 meter dipole. If I were to take a ferrite core
>and place a core along the dipole for the lenght of 6 meters, having
>two cores on either side.
>
>The question is would this antenna now work as a dipole on 6 meters but
>not on 15 unless the reactance of the core was low at 21 MHz?
>
>Does the core act as a RF block but not as a inductance with a
>reactance at 15meters?
>
>If it is a inductive reactance, then reducting the lenght of the dipole
>would bring down swr on 15m.
>
>I have seen the ferrite emi cores which clamp around the wire, would
>these work for 100 watts?
>
>If I had a way to move the cores along the dipole, I could create a
>multiband antenna, true?
>
>I am sure there are better ways to do such, aka trap dipole but I like
>to give this some thought.
>
>De KJ4UO

If you want to have a single antenna for 15 meters and 6 meters, you
may find it easiest and more efficient to do what I did with my 20
meter dipole. I cut a 6 meter dipole and hung it under my 20 meter
dipole. I happened to cut the length perfect for 50.125, which is
about where I wanted it. The 20 meter dipole resonance dropped.
however, it was a bit on the high side, a perfect match for 14.336
before hanging the 6 meter dipole. now it is a bit lower, but it is
broad banded enough to cover the entire band at 1.3:1 or less so I
didn't need to trim it.

The two dipoles come together at the coax connector and an 8" piece of
PVC pipe is used as an insulator and hangs from the 20 meter dipole to
the end of the 6 meter dipole to keep the ends away from the 20 meter
dipole.

I have been making and using antennas like this since I was a novice.
The only thing I have ever noticed different from single dipoles is
that the lower bands are more broad-banded on the parallel dipoles.

BTW, the six meter dipole is great. It doesn't compare to my
neighbors with beams, but it is better than nothing, and it is a
dipole.

--
73 for now
Buck
N4PGW

2384. New Coax Connector & Adapter Catalog Now Available

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 13:36:25 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <l6Rye.7585$Eo.4154@fed1read04>
Source record: 73750
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap,sci.electronics.components

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2385. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 14:34:26 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1120660466.321576.164590@o13g2000cwo.googlegroups.com>
Source record: 73751

So Mr SMITH

In your Expert Opinion, and full 100% support of Charlie, let us see your Calculations that this thing is Safe. Im not a tower expert by any means. But working at the Worlds largest Aircraft company as a technical Design Engineer, I know what looks BAD. AND I have helped put many towers up and climbed my share of towers, and I know what is safe and what isnt. I would not go up that one for any money on earth.

Tell me what those trees can hold in upward pulling momentum from those 3 guy lines, and how that thing has not exceeded the capacity for the trees to not eventually SNAP. Tell me how the Power pole, set in the verticle with, will hold those three guy lines perfectly secure, while they are pulling at it in a side and upward movement How with no secure pins are the turnbuckles not going to give way.

The force of the tower alone in the wind and pulling on those trees is enough to make one Queesy just to look at it. Oh and He still hasnt answered what he plans to tell the Power company when they discover his little field mod to thier power pole. Hell its a 200 buck fine if they see you putting a nail in one here.

So please do tell us again Mr Smith.

2386. Re: dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 14:48:54 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndcnrqm.15bt.bit-bucket@shell.config.com>
Source record: 73752

On Wed, 06 Jul 2005 07:47:55 -0400, Buck wrote:
> On 5 Jul 2005 20:20:23 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
> wrote:
>
>>Hi Group,
>>
>>Let's say I have a 15 meter dipole. If I were to take a ferrite core
>>and place a core along the dipole for the lenght of 6 meters, having
>>two cores on either side.
>>
>>The question is would this antenna now work as a dipole on 6 meters but
>>not on 15 unless the reactance of the core was low at 21 MHz?

<snip>
>
> If you want to have a single antenna for 15 meters and 6 meters, you
> may find it easiest and more efficient to do what I did with my 20
> meter dipole. I cut a 6 meter dipole and hung it under my 20 meter
> dipole.

<snip II>

A dipole cut for the low end of 40M should work "OK" (for
selected definitions of "OK") on both 15M and 6M, as well.

I often work fellas on 6M who apologize for "using a 40M dipole."
Their sigs are usually every bit as strong as others.

73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
| config.com | DM78rf | SK

2387. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 14:53:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <rfSye.14$FU7.1849460@news.sisna.com>
Source record: 73757

Rick:

Do you know the difference between a real amateur and a goof ball
which thinks everyone wants to be an engineer?

Do you know the difference between an individual who can get along
with others and enjoys communicating with them, and them with he--as
opposed to someone which is drain on the groups energy?

Do you know the difference between someone who doesn't wish to impose
his thoughts on someone else and one who does?

Do you know the difference between someone who enjoys life and having
fun and someone just sitting their trying to look half-way intelligent
by telling everyone else what it wrong with everything in the world?

Get a real life. Look around you, it is quite apparent that people,
your neighbors and those around you will have the same opinion of you
which we form here. A leopard cannot change his spots, these social
disabilities you pack through life with you are a burden on those
around you.

Get a therapist and get some help son.

John

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1120660466.321576.164590@o13g2000cwo.googlegroups.com...
> So Mr SMITH
>
> In your Expert Opinion, and full 100% support of Charlie, let us see
> your Calculations that this thing is Safe. Im not a tower expert by
> any means. But working at the Worlds largest Aircraft company as a
> technical Design Engineer, I know what looks BAD. AND I have helped
> put many towers up and climbed my share of towers, and I know what
> is
> safe and what isnt. I would not go up that one for any money on
> earth.
>
> Tell me what those trees can hold in upward pulling momentum from
> those
> 3 guy lines, and how that thing has not exceeded the capacity for
> the
> trees to not eventually SNAP. Tell me how the Power pole, set in
> the
> verticle with, will hold those three guy lines perfectly secure,
> while

> they are pulling at it in a side and upward movement How with no
> secure pins are the turnbuckles not going to give way.
>
> The force of the tower alone in the wind and pulling on those trees
> is
> enough to make one Queesy just to look at it. Oh and He still
> hasnt
> answered what he plans to tell the Power company when they discover
> his
> little field mod to thier power pole. Hell its a 200 buck fine if
> they see you putting a nail in one here.
>
> So please do tell us again Mr Smith.
>

2388. A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 15:29:15 UTC
From: Christopher O'Callaghan <d.ocallaghan@iolfree.ie>
Message-ID: <dagtcc$dt9$1@reader01.news.esat.net>
Source record: 73753

never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag mounts...WOW

2389. Re: dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 15:31:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42cbfa51$1_2@spool9-west.superfeed.net>
Source record: 73754

Allodoxaphobia wrote:
> I often work fellas on 6M who apologize for "using a 40M dipole."
> Their sigs are usually every bit as strong as others.

For a 40m dipole running North/South, the major lobes on 6m
would be N27W, N27E, S27W, S27E, i.e. pretty much end fire.
I use my 20m rotatable dipole as an emergency TV antenna
when cable is down.
--
73, Cecil http://www.qsl.net/w5dxp

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2390. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 15:58:35 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Euydnbm6CoQoYlbfRVn-pw@crocker.com>
Source record: 73755

then you have never been to any decent sized hamfest/fleamarket.

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:dagtcc$dt9$1@reader01.news.esat.net...
> never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag
> mounts...WOW
>
>
>

2391. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 16:16:23 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11co0u5kch91hbd@corp.supernews.com>
Source record: 73756

Dear Rick (N7HJT):
Who is the subject of your message?
73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"R. Scott" <RickN7HJTHREAD@gmail.com> wrote in message
news:42CBDF40.38F9CFED@gmail.com...
> Charlies typing style - Check
> Supports Charlie 100% - Check
> Never Posted on Net before (except 3 messages on how to post direct to
> newsgroups) - Check
> SAME NEWSSERVER As charlie - Check
>
> Yep, Back to your old tricks again.
> When are you going to FAKE other hams Names again.

2392. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 18:57:10 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1120676230.552202.119280@o13g2000cwo.googlegroups.com>
Source record: 73758

> Get a therapist and get some help son.

Typical, Rather than answer the questions on the issues at hand attack the poster in some Veiled attempt and being superior. Sorry dont need a therapist or help.

Charlie came here posting his tower crowing to the world about his install and asked for opionions. When He got quite the opposite of what he thought was glowing props he whined. And now you come in supporting him 100% and even sound like him.

Heck you even post from exactly the same Posting site as him. Are you RELATED?

2393. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 20:05:37 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <rQWye.37$1D6.2910340@news.sisna.com>
Source record: 73759

Rick:

Get something straight here. You will NOT be telling me what to do, or setting up little cute tricks to bait me into your game.

You can sit there like a fool and attempting all the manipulations you care to--indeed, you can sit there till hell freezes over.

I can't believe you people, does this chit really work on other people? Get a life!

Go find some bum on the street, perhaps he will play your game with you for a bit of pocket change... ROFLOL!

John

"Rick Scott" <RickN7HJ@gmail.com> wrote in message news:1120676230.552202.119280@o13g2000cwo.googlegroups.com...
>
>> Get a therapist and get some help son.
>
> Typical, Rather than answer the questions on the issues at hand
> attack
> the poster in some Veiled attempt and being superior. Sorry dont
> need a
> therapist or help.
>
> Charlie came here posting his tower crowing to the world about his
> install and asked for opionions. When He got quite the opposite of
> what he thought was glowing props he whined. And now you come in
> supporting him 100% and even sound like him.
>
>
> Heck you even post from exactly the same Posting site as him. Are
> you
> RELATED?
>

2394. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 20:09:42 UTC
From: George Washington Bush <gb@presidents.r.us.gov>
Message-ID: <ee1pi4447bjjumf.060720051338@kirk>
Source record: 73760

the man is right rich

see a therapist

get a life

your country and your president is behind you son

now be on about it

G.W.B.
"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1120676230.552202.119280@o13g2000cwo.googlegroups.com...
>
>> Get a therapist and get some help son.
>
> Typical, Rather than answer the questions on the issues at hand
> attack
> the poster in some Veiled attempt and being superior. Sorry dont
> need a
> therapist or help.
>
> Charlie came here posting his tower crowing to the world about his
> install and asked for opionions. When He got quite the opposite of
> what he thought was glowing props he whined. And now you come in
> supporting him 100% and even sound like him.
>
>
> Heck you even post from exactly the same Posting site as him. Are
> you
> RELATED?
>
>

2395. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 20:39:39 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <bjXye.46379$Tt.26779@bignews3.bellsouth.net>
Source record: 73761

Yah
That's why I use a thermometer -
- or - make Arnold count the chirps for me.
He's a real chirpinator

"Arnold Schwarzenegger" <arnie@terminators.org> wrote in message
news:ir7wmcjgcvulegj.050720052100@kirk...
> only girly men count cricket chirps
>
> arnold
>

2396. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 21:13:25 UTC
From: George Washington Bush <gb@presidents.r.us.gov>
Message-ID: <4qmkdpfrb723j7u.060720051413@kirk>
Source record: 73762

Hal;

Now don't be picking on my good buddy arnie, he is doing a fine job out there in california for me.

We need him to get those drivers licenses for the illegal aliens. By this time next year I would like to have all the truck drivers which are buying homes, cars and sending their children through college reduced to receiving welfare checks.

It doesn't take a genius to drive a truck and that is one of the last areas a working fellow can still earn a half decent living, time for those illegals to start driving those big rigs for a minimum wage.

With those illegals living 10 family's to a home they can get by on a lot less.

Get with the plan man. We used to export our standard of living to the rest of the world pulling them out from under poverty, disease and death, but that got darn tiring (and our profits from ripping them off under that system were too low.) We replaced that tired old plan with the new one, 'import 3'rd world conditions to america.' Now get out there, support your president, your congress and the supreme court and employ an illegal alien today.

I am counting on you to be a team player here hal.

Now put down those silly crickets and the thermometer and get to work man!

G.W.B.

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:bjXye.46379$Tt.26779@bignews3.bellsouth.net...
> Yah
> That's why I use a thermometer -
> - or - make Arnold count the chirps for me.
> He's a real chirpinator
>
>
>
> "Arnold Schwarzenegger" <arnie@terminators.org> wrote in message
> news:ir7wmcjgcvulegj.050720052100@kirk...
>> only girly men count cricket chirps
>>
>> arnold
>>

>
>
>

2397. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 21:36:43 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <saYye.234$zA.139@fe04.lga>
Source record: 73763

"Dave" <noone@nowhere.com> wrote in message
news:Euydnbm6CoQoYlbfRVn-pw@crocker.com...
> then you have never been to any decent sized hamfest/fleamarket.
>
> "Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
> news:dagtcc$dt9$1@reader01.news.esat.net...
> > never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag
> > mounts...WOW

He was probably conducting a mutual impedance measuring test to see which
one would out couple the other.

Walt,W2DU

2398. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 21:54:36 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <6okoc1pojb9035o93ute5s9a838kdkorkt@4ax.com>
Source record: 73764

On Wed, 6 Jul 2005 16:29:15 +0100, "Christopher O'Callaghan"
<d.ocallaghan@iolfree.ie> wrote:

>never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag
>mounts...WOW

WOW? You must be kidding.

Here's my "Elmer's" mobile rig circa 1958.

http://www.qsl.net/n7ws/w7uvr.jpg

Folding 2 el beam (later three elements) on 30' rotatable pneumatic
mast.

4-1000A high-level plate modulated (later SSB linear). "Pole-pig"
transformer, with extra leaf in the spring on that side.

5 KW generator (later 15KW)

Two bumper mounted, hat-loaded verticals with remotely tuned
vacuum-variable/rotary-inductor tuning.

2399. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 21:59:03 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <2okoc1d8tqkqjrmappgf1t55s0t3q5eo9e@4ax.com>
Source record: 73765

On Wed, 6 Jul 2005 15:58:35 -0000, "Dave" <noone@nowhere.com> wrote:

>then you have never been to any decent sized hamfest/fleamarket.
>
>"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
>news:dagtcc$dt9$1@reader01.news.esat.net...
>> never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag
>> mounts...WOW
>>
>>
>>
>

Or seen a San Antonian cop drive by with 17 tiny aeraels sticking up
from his cruiser roof, looking like a dead cockroach.

Those guys must use a lotta radios...

bob
k5qwg

2400. Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 22:07:41 UTC
From: Owen <owen@no.where>
Message-ID: <e1loc1554j1hec26o62l5c7sn5ugublgrp@4ax.com>
Source record: 73766

Apparently, Michaels described in "Technical Correspondence" in QST NOV 1997 a method for calculating loss on a mismatched line.

I don't have the article, and haven't been able to find it on the net, so I am working from references to it that I have seen, mainly in Usenet.

Apparently, the method involves calculation of a factor (let's call it MR) as MR=|(Zl-Zo*)/(Zl+Zo)|, and the line loss between two points is given by 10*log((1-MR1**2)/(1-MR2**2)) where MR1 and MR2 are the values for MR at points 1 and 2.

I have compared the results of this on lines with Xo<0 and high VSWR, and the results are identical to calcuating the loss by subtraction of Real(VI*) at point 1 from Real(VI*) at point 2.

Has anyone a link to, or a reference to the derivation of the formula?

Owen
--

2401. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 22:15:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11com00fa5n1r74@corp.supernews.com>
Source record: 73767

That's really just one antenna with six feedpoints.

Roy Lewallen, W7EL

2402. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 22:26:55 UTC
From: Buck <iam@this.site>
Message-ID: <gkmoc11a3hb67ol4fimue5ttbv5qid4km3@4ax.com>
Source record: 73768

On Wed, 6 Jul 2005 16:29:15 +0100, "Christopher O'Callaghan"
<d.ocallaghan@iolfree.ie> wrote:

>never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag
>mounts...WOW
>
>

You missed mine when it had 8 antennas on it, or when I was in atlanta
with 10 antennas.

--
73 for now
Buck
N4PGW

2403. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 22:27:08 UTC
From: Owen <owen@no.where>
Message-ID: <limoc1pl0c47tqc886j56h9gfuopo5irt5@4ax.com>
Source record: 73769

On Wed, 06 Jul 2005 22:07:41 GMT, Owen <owen@no.where> wrote:

>
>Apparently, the method involves calculation of a factor (let's call it
>MR) as MR=|(Zl-Zo*)/(Zl+Zo)|, and the line loss between two points is
>given by 10*log((1-MR1**2)/(1-MR2**2)) where MR1 and MR2 are the
>values for MR at points 1 and 2.

Sorry, that gives the additional loss "due to SWR" which has to be
added to the matched line loss to obtain the total loss between points
1 and 2.

Zl in the formulas is the impedance (V/I) at the point where MR is
calculated.

Owen
--

2404. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 22:32:50 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <3%Yye.13220$Si3.1138@fe06.lga>
Source record: 73770

"Owen" <owen@no.where> wrote in message
news:limoc1pl0c47tqc886j56h9gfuopo5irt5@4ax.com...
> On Wed, 06 Jul 2005 22:07:41 GMT, Owen <owen@no.where> wrote:
>
> >
> >Apparently, the method involves calculation of a factor (let's call it
> >MR) as MR=|(Zl-Zo*)/(Zl+Zo)|, and the line loss between two points is
> >given by 10*log((1-MR1**2)/(1-MR2**2)) where MR1 and MR2 are the
> >values for MR at points 1 and 2.
>
> Sorry, that gives the additional loss "due to SWR" which has to be
> added to the matched line loss to obtain the total loss between points
> 1 and 2.
>
> Zl in the formulas is the impedance (V/I) at the point where MR is
> calculated.
>
> Owen

Well, Owen, you might take a look at Appendix 8 of Reflections 2, which can be found on my web site at w2du.com. Click on 'Read Appendices from Reflections 2', the click on Appendix 8. I think what you'll see there will be of interest.

Walt, W2DU

2405. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 22:41:25 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-B48492.14414606072005@netnews.worldnet.att.net>
Source record: 73771

In article <11com00fa5n1r74@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

> That's really just one antenna with six feedpoints.
>
> Roy Lewallen, W7EL

Maybe a Phased Array for signal tracking........

Me who used to drive one of those for the FCC...........

2406. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:01:26 UTC
From: Owen <owen@no.where>
Message-ID: <miooc1dkd6cj93rvh181no9cg9o28vkc6k@4ax.com>
Source record: 73773

On Wed, 6 Jul 2005 18:32:50 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Well, Owen, you might take a look at Appendix 8 of Reflections 2, which can
>be found on my web site at w2du.com. Click on 'Read Appendices from
>Reflections 2', the click on Appendix 8. I think what you'll see there will
>be of interest.

Thanks Walt. I had a look at it, and although it doesn't state as
much, isn't it correct only for distortionless lines (Xo=0)?
Owen
--

2407. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:01:30 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11coomcq9n75661@corp.supernews.com>
Source record: 73772

Walt is always the tru guru.
Chuckle.

73 OM

H.
NQ5H

"Walter Maxwell" <walt@w2du.com> wrote in message
news:saYye.234$zA.139@fe04.lga...
>
> "Dave" <noone@nowhere.com> wrote in message
> news:Euydnbm6CoQoYlbfRVn-pw@crocker.com...
>> then you have never been to any decent sized hamfest/fleamarket.
>>
>> "Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
>> news:dagtcc$dt9$1@reader01.news.esat.net...
>> > never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on
>> > mag
>> > mounts...WOW
>
> He was probably conducting a mutual impedance measuring test to see which
> one would out couple the other.
>
> Walt,W2DU
>
>

2408. New program. Two SWR meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:12:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dahoh4kaa1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73774

This program models the behaviour of a transmission line plus antenna. The line impedance can have any Zo. The antenna feedpoint impedance can be any value of R+jX. Line length can be any fraction and number of wavelengths. Line overall attenuation can be any value of dBs.

There is an SWR meter located at each end of the line. The meters also indicate the reflection coefficients at the locations. Meter Zo can be set equal to line Zo or to the standard 50 ohms.

Line input impedance can be observed to change versus line length in wave-lengths, line attenuation and antenna impedance. The transforming action of the line can be demonstrated. The smaller SWR and reflection coefficient at the transmitter end of the line can be seen. The exact increase in loss due to standing waves on the line is calculated.

The program can be used in practical applications and also for educational purposes. It is hoped it may prevent the outbreaks in violence which frequently occur in newsgroups about the meanings of SWR and the notions of reflected power.

Download program SWRARGUE from website below in a few seconds. File size = 41 Kbytes. Run immediately. No unzipping inconvenience.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2409. Re: New program. Two SWR meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:18:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3FZye.69$Rq1.3947655@news.sisna.com>
Source record: 73675

Reg:

Great idea for a program but, I don't like the name.

Would you consider renaming it:
SWR-PISSING-MATCH.exe
<chuckle-and-a-grin>

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dahoh4kaa1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> This program models the behaviour of a transmission line plus
> antenna.
> The line impedance can have any Zo. The antenna feedpoint impedance
> can be any value of R+jX. Line length can be any fraction and
> number
> of wavelengths. Line overall attenuation can be any value of dBs.
>
> There is an SWR meter located at each end of the line. The meters
> also
> indicate the reflection coefficients at the locations. Meter Zo can
> be set equal to line Zo or to the standard 50 ohms.
>
> Line input impedance can be observed to change versus line length in
> wave-lengths, line attenuation and antenna impedance. The
> transforming
> action of the line can be demonstrated. The smaller SWR and
> reflection
> coefficient at the transmitter end of the line can be seen. The
> exact
> increase in loss due to standing waves on the line is calculated.
>
> The program can be used in practical applications and also for
> educational purposes. It is hoped it may prevent the outbreaks in
> violence which frequently occur in newsgroups about the meanings of
> SWR and the notions of reflected power.
>
> Download program SWRARGUE from website below in a few seconds. File
> size = 41 Kbytes. Run immediately. No unzipping inconvenience.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp

> . . . . . .
>
>

2410. New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:21:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dahp1m$18h$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73676

This program models the behaviour of a transmission line plus antenna.
The line impedance can have any Zo. The antenna feedpoint impedance
can be any value of R+jX. Line length can be any fraction and number
of wavelengths. Line overall attenuation can be any value of dBs.

There is an SWR meter located at each end of the line. The meters also
indicate the reflection coefficients at the locations. Meter Zo can
be set equal to line Zo or to the standard 50 ohms.

Line input impedance can be observed to change versus line length in
wave-lengths, line attenuation and antenna impedance. The transforming
action of the line can be demonstrated. The smaller SWR and reflection
coefficient at the transmitter end of the line can be seen. The exact
increase in loss due to standing waves on the line is calculated.

The program can be used in practical applications and also for
educational purposes. It is hoped it may prevent the outbreaks in
violence which frequently occur in newsgroups about the meanings of
SWR and the notions of reflected power.

Download program SWRARGUE from website below in a few seconds. File
size = 41 Kbytes. Run immediately. No unzipping inconvenience.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2411. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:48:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dahql4qmv1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73677

Owen,

Your formula is too short to be anything but an approximation. It may
be a very good approximation. On the other hand it may contain
exactly the same errors as whatever you may have checked it against.

The exact formula is exceedingly involved and occupies about half a
dozen lines of source code in new program SWRARGUE which by
coincidence I have just placed in my website.

You can check your formula against my program. Let us know how you get
on.

Reg, G4FGQ

"Owen" <owen@no.where> wrote in message
news:e1loc1554j1hec26o62l5c7sn5ugublgrp@4ax.com...
>
> Apparently, Michaels described in "Technical Correspondence" in QST
> NOV 1997 a method for calculating loss on a mismatched line.
>
> I don't have the article, and haven't been able to find it on the
net,
> so I am working from references to it that I have seen, mainly in
> Usenet.
>
> Apparently, the method involves calculation of a factor (let's call
it
> MR) as MR=|(Zl-Zo*)/(Zl+Zo)|, and the line loss between two points
is
> given by 10*log((1-MR1**2)/(1-MR2**2)) where MR1 and MR2 are the
> values for MR at points 1 and 2.
>
> I have compared the results of this on lines with Xo<0 and high
VSWR,
> and the results are identical to calcuating the loss by subtraction
of
> Real(VI*) at point 1 from Real(VI*) at point 2.
>
> Has anyone a link to, or a reference to the derivation of the
formula?
>
> Owen
> --

2412. Re: New program. Two SWR meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:52:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dahqro$68j$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73679

"John Smith" <assemblywizard@gmail.com> wrote in message
news:3FZye.69$Rq1.3947655@news.sisna.com...
> Reg:
>
> Great idea for a program but, I don't like the name.
>
> Would you consider renaming it:
> SWR-PISSING-MATCH.exe
> <chuckle-and-a-grin>
>

Unfortunately, DOS filenames are restricted to a maximum of 8
characters.

Reg

2413. Re: Feed Line Length - Ladder Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:54:05 UTC
From: Yodar <JStrain4@cfl.rr.com>
Message-ID: <xa_ye.185744$IO.94804@tornado.tampabay.rr.com>
Source record: 73678

>
> Yodar wrote:
>>
>>I'M SHOPPING FOR SUCH AN ANTENNA
>>
>> Who sells it? specs, price etc.
>>
>>remove nospam
>>Yodar in O'do
>>jstrain4nospam@cfl.rr.com
>
>
> Yodar, where are you shopping? Go to Lowes or Home Depot and get #14
> stranded wire, plexiglas for insulators, and screws, nuts and bolts to
> put it together. Get some 450 ohm ladder line (Wireman, w7fg I think),
> or make your own from wire and PVC from Lowes. To put the whole thing
> together should be 30 minutes or less, I do it every year at field day.
> Make the dipole as long and high (within reason) as you have room for,
> and the 450 ohm line long enough to get from the antenna feedpoint to
> your tuner. There you have what you have been shopping for.
> Radioworks among other folks have pre-put together antennas, but
> where is the fun in that?
> Gary N4AST
>
Thank you for the clues. The 66' length and 10-40 M was very attractive.
This is for SWL only ! (apartment attached)

We HAVE an Ham Radio Supply branch store in O'do from whom i bought a
Grundig R350 a while back. their antennas were overkill for my
application and TOOOO BIG!

Had been using a vertical slinky but it really poopsout above 40M

Yodar

2414. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-06 23:56:26 UTC
From: Owen <owen@no.where>
Message-ID: <2kroc19319ui4fk7q6b2im6k4fda47s136@4ax.com>
Source record: 73680

On Wed, 6 Jul 2005 23:48:53 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Owen,
>
>Your formula is too short to be anything but an approximation. It may
>be a very good approximation. On the other hand it may contain
>exactly the same errors as whatever you may have checked it against.
>
>The exact formula is exceedingly involved and occupies about half a
>dozen lines of source code in new program SWRARGUE which by
>coincidence I have just placed in my website.

I have calculated the loss using P=Real(V*I*) at the two points, and
it is long winded. Michaels approach produces the same result, and the
coding is more elegant, probably faster to calculate. He is a SK, so I
can't ask him, but in the hope that it is well known, someone might
know of the derivation.

>
>You can check your formula against my program. Let us know how you get
>on.

Your calculator does not allow complex Zo does it? Doesn't that mean
it assumes a distortionless line. I am calculating loss in the general
case.

Thanks...

Owen

--

2415. Re: New program. Two SWR meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:00:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Tg_ye.76$e41.3676300@news.sisna.com>
Source record: 73681

Reg:

TOUCH&#65533;! I stand corrected...

LOL!

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dahqro$68j$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:3FZye.69$Rq1.3947655@news.sisna.com...
>> Reg:
>>
>> Great idea for a program but, I don't like the name.
>>
>> Would you consider renaming it:
>> SWR-PISSING-MATCH.exe
>> <chuckle-and-a-grin>
>>
> --
>
> Unfortunately, DOS filenames are restricted to a maximum of 8
> characters.
> ----
> Reg
>
>

2416. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:06:13 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Cm_ye.247$zA.129@fe04.lga>
Source record: 73682

"Owen" <owen@no.where> wrote in message
news:miooc1dkd6cj93rvh181no9cg9o28vkc6k@4ax.com...
> On Wed, 6 Jul 2005 18:32:50 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
> >Well, Owen, you might take a look at Appendix 8 of Reflections 2, which
can
> >be found on my web site at w2du.com. Click on 'Read Appendices from
> >Reflections 2', the click on Appendix 8. I think what you'll see there
will
> >be of interest.
>
> Thanks Walt. I had a look at it, and although it doesn't state as
> much, isn't it correct only for distortionless lines (Xo=0)?
> Owen
>
As I understand it, Owen, a line has to be lossless for Xo to be 0, while distortionless lines have loss but have equal series R and shunt G. All lines that I've measured have a small negative X, that would be zero if the line were lossless. So I'd have to say that the material in Appendix is is correct for standard lines. Distortionless lines are normally found only in long-distance phone lines used at voice frequencies, not RF. Or am I missing something?

Walt,W2DU

2417. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:08:33 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ho_ye.79$qc1.3886099@news.sisna.com>
Source record: 73683

Owen:

Right of you to be cautious of that wise and crafty old brit.

Not only has he survived in this den of treacherous and particularly vicious hams--he has THRIVED--this is quite suspicious in itself!

However, most often you will find there is true wisdom in his words and programs... and it is of a highly practical nature. He is a welcomed resource here...

John

"Owen" <owen@no.where> wrote in message news:2kroc19319ui4fk7q6b2im6k4fda47s136@4ax.com...
> On Wed, 6 Jul 2005 23:48:53 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Owen,
>>
>>Your formula is too short to be anything but an approximation. It
>>may
>>be a very good approximation. On the other hand it may contain
>>exactly the same errors as whatever you may have checked it against.
>>
>>The exact formula is exceedingly involved and occupies about half a
>>dozen lines of source code in new program SWRARGUE which by
>>coincidence I have just placed in my website.
>
> I have calculated the loss using P=Real(V*I*) at the two points, and
> it is long winded. Michaels approach produces the same result, and
> the
> coding is more elegant, probably faster to calculate. He is a SK, so
> I
> can't ask him, but in the hope that it is well known, someone might
> know of the derivation.
>
>>
>>You can check your formula against my program. Let us know how you
>>get
>>on.
>
> Your calculator does not allow complex Zo does it? Doesn't that mean
> it assumes a distortionless line. I am calculating loss in the
> general
> case.

>
> Thanks...
>
> Owen
>
> --

2418. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:11:28 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <xr_ye.248$zA.129@fe04.lga>
Source record: 73684

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dahp1m$18h$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> This program models the behaviour of a transmission line plus antenna.
> The line impedance can have any Zo. The antenna feedpoint impedance
> can be any value of R+jX. Line length can be any fraction and number
> of wavelengths. Line overall attenuation can be any value of dBs.
>
> There is an SWR meter located at each end of the line. The meters also
> indicate the reflection coefficients at the locations. Meter Zo can
> be set equal to line Zo or to the standard 50 ohms.
>
> Line input impedance can be observed to change versus line length in
> wave-lengths, line attenuation and antenna impedance. The transforming
> action of the line can be demonstrated. The smaller SWR and reflection
> coefficient at the transmitter end of the line can be seen. The exact
> increase in loss due to standing waves on the line is calculated.
>
> The program can be used in practical applications and also for
> educational purposes. It is hoped it may prevent the outbreaks in
> violence which frequently occur in newsgroups about the meanings of
> SWR and the notions of reflected power.
>
> Download program SWRARGUE from website below in a few seconds. File
> size = 41 Kbytes. Run immediately. No unzipping inconvenience.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
Reg, the two SWR meters, one at each of the line, follows precisely the
method I presented in Appendix 8 of Reflections 2 to explain how to
determine the additional line attenuation attributed to SWR. Appendix 8 can
be found on my web site at w2du.com. Click on 'Read Appendices from
Reflections 2', then click on Appendix 8.

Walt, W2DU

2419. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:17:17 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <36roc1lcdt1q62kb2qijlm3f4scq80eo7i@4ax.com>
Source record: 73685

On Wed, 06 Jul 2005 22:27:08 GMT, Owen <owen@no.where> wrote:

>On Wed, 06 Jul 2005 22:07:41 GMT, Owen <owen@no.where> wrote:
>
>>
>>Apparently, the method involves calculation of a factor (let's call it
>>MR) as MR=|(Zl-Zo*)/(Zl+Zo)|, and the line loss between two points is
>>given by 10*log((1-MR1**2)/(1-MR2**2)) where MR1 and MR2 are the
>>values for MR at points 1 and 2.
>
>Sorry, that gives the additional loss "due to SWR" which has to be
>added to the matched line loss to obtain the total loss between points
>1 and 2.
>
>Zl in the formulas is the impedance (V/I) at the point where MR is
>calculated.

I think "Computation of Impedance and Efficiency of Transmission Line
with High Standing-Wave Ratio", W.W. Macalpine, Transactions of the
AIEE, vol. 72, pp 334-339; July, 1953 might be of interest to you.

The same reference is used as the basis for the section
"Transformation of Impedance on Lines With Highh SWR" in the ITT
handbook.

2420. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:22:32 UTC
From: Owen <owen@no.where>
Message-ID: <25toc1129od79tf8anm67h16an9fajpit1@4ax.com>
Source record: 73686

On Wed, 6 Jul 2005 20:06:13 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>As I understand it, Owen, a line has to be lossless for Xo to be 0, while
>distortionless lines have loss but have equal series R and shunt G. All

Walt, I learnt that a distortionless line is one where attenuation and
phase velocity are constant for all frequencies, and that requires
that R/XL=G/XC in the RLGC model of a lines characteristics, and the
result is that Zo is purely real.

A lossless line is a special case of a distortionless line.

>lines that I've measured have a small negative X, that would be zero if the
>line were lossless. So I'd have to say that the material in Appendix is is
>correct for standard lines. Distortionless lines are normally found only in
>long-distance phone lines used at voice frequencies, not RF. Or am I missing
>something?

If you like, I am saying your approach is valid for lossless lines, it
is also valid for all distortionless lines, but I think it is not
accurate for lines in the general case because it isn't correct if
Xo!=0.

Owen
--

2421. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:25:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dahsq8$34h$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73687

My program assumes line Zo is purely resistive. But at HF it is
practically impossible to tell the difference in line loss between an
angle of 0 degrees and 1 degree which is the range of Zo angles
involved.

I have the exact formula for any line but its far too complicated to
write here.

I didn't use it in my program as it would have meant another input
value for no useful purpose.

Reg

"Owen" <owen@no.where> wrote in message
news:2kroc19319ui4fk7q6b2im6k4fda47s136@4ax.com...
> On Wed, 6 Jul 2005 23:48:53 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >Owen,
> >
> >Your formula is too short to be anything but an approximation. It
may
> >be a very good approximation. On the other hand it may contain
> >exactly the same errors as whatever you may have checked it
against.
> >
> >The exact formula is exceedingly involved and occupies about half a
> >dozen lines of source code in new program SWRARGUE which by
> >coincidence I have just placed in my website.
>
> I have calculated the loss using P=Real(V*I*) at the two points, and
> it is long winded. Michaels approach produces the same result, and
the
> coding is more elegant, probably faster to calculate. He is a SK, so
I
> can't ask him, but in the hope that it is well known, someone might
> know of the derivation.
>
> >
> >You can check your formula against my program. Let us know how you
get
> >on.
>

> Your calculator does not allow complex Zo does it? Doesn't that mean
> it assumes a distortionless line. I am calculating loss in the
general
> case.
>
> Thanks...
>
> Owen
>
> --

2422. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 00:51:05 UTC
From: Owen <owen@no.where>
Message-ID: <oluoc1hfm4iigqq3n0a10fi7vl28dl6n7h@4ax.com>
Source record: 73688

On Wed, 06 Jul 2005 17:17:17 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>
>I think "Computation of Impedance and Efficiency of Transmission Line
>with High Standing-Wave Ratio", W.W. Macalpine, Transactions of the
>AIEE, vol. 72, pp 334-339; July, 1953 might be of interest to you.
>
>The same reference is used as the basis for the section
>"Transformation of Impedance on Lines With Highh SWR" in the ITT
>handbook.

Yes, I saw (and I think, understand) the formulas under the heading
"Power and Efficiency" in my ed #6 of the ITT H'book.

Not wanting to express the algorithm in pseudo code (AKA ugly ASCII
math) here, 'cos it *will* be unreadable, I have pasted the formula I
have worked up, and a plot of it in a particular scenario at
http://www.vk1od.net/temp/LineLoss.htm .

Given, that to support this, there is are functions for Gamma(load)
and Gamma(x), it is a whole bunch of code, and Michaels approach is
attractively simple, and it produces exactly the same answer on this
scenario.

Owen
--

2423. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 01:23:52 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <pv%ye.13292$Si3.4719@fe06.lga>
Source record: 73689

"Owen" <owen@no.where> wrote in message
news:25toc1129od79tf8anm67h16an9fajpit1@4ax.com...
> On Wed, 6 Jul 2005 20:06:13 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>
> >As I understand it, Owen, a line has to be lossless for Xo to be 0, while
> >distortionless lines have loss but have equal series R and shunt G. All
>
> Walt, I learnt that a distortionless line is one where attenuation and
> phase velocity are constant for all frequencies, and that requires
> that R/XL=G/XC in the RLGC model of a lines characteristics, and the
> result is that Zo is purely real.
>
> A lossless line is a special case of a distortionless line.
>
> >lines that I've measured have a small negative X, that would be zero if
the
> >line were lossless. So I'd have to say that the material in Appendix is
is
> >correct for standard lines. Distortionless lines are normally found only
in
> >long-distance phone lines used at voice frequencies, not RF. Or am I
missing
> >something?
>
> If you like, I am saying your approach is valid for lossless lines, it
> is also valid for all distortionless lines, but I think it is not
> accurate for lines in the general case because it isn't correct if
> Xo!=0.
>
> Owen

Owen, if X = 0 there is no attenuation, but you're saying my material is
invalid if X is not 0? I'm sorry, but I'm confused.

Walt, W2DU

2424. Re: Support for a 90 ft folded dipole - suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 01:30:35 UTC
From: "Z.Z." <nobody@nowhere.com>
Message-ID: <Xns968BBC4B2B71Cnobodynowhere@68.6.19.6>
Source record: 73690

Bob Miller wrote:
>
> There's a nice A-frame wood mast in the ARRL Handbook that's about 40
> feet high, and can be made from just a few pieces of lumber.
>

If you can find nice, clear 2x3's 20+ feet long. Maybe back in the 50's
when those first appeared in the Handbook, but not any more...

2425. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 01:44:32 UTC
From: Owen <owen@no.where>
Message-ID: <3i1pc1llb0khd322qqtlfn2a9vet93a50r@4ax.com>
Source record: 73691

On Wed, 6 Jul 2005 21:23:52 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>> If you like, I am saying your approach is valid for lossless lines, it
>> is also valid for all distortionless lines, but I think it is not
>> accurate for lines in the general case because it isn't correct if
>> Xo!=0.
>>
>> Owen
>
>Owen, if X = 0 there is no attenuation, but you're saying my material is
>invalid if X is not 0? I'm sorry, but I'm confused.

Walt, I don't think that Xo=0 implies zero attenuation, but it is true
that if the line has zero attenuation that Xo=0.

I think the method in your appendix is true when Xo=0, and an
approximation where Xo!=0.

I have just added a function (DLoss) to calculate loss as per your
appendix to the graphic at http://www.vk1od.net/temp/LineLoss.htm ,
and it can be seen that in this (perhaps extreme) case, it is not a
very good approximation.

I also added the same calcs for f=100MHz and Zo is much closer to
real, and it can be seen the approximation is much closer.

Owen

--

2426. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 01:49:11 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <rS%ye.133893$on1.59567@clgrps13>
Source record: 73692

"Owen" <owen@no.where> wrote in message
news:e1loc1554j1hec26o62l5c7sn5ugublgrp@4ax.com...
>
> Apparently, Michaels described in "Technical Correspondence" in QST
> NOV 1997 a method for calculating loss on a mismatched line.
>
> I don't have the article, and haven't been able to find it on the net,
> so I am working from references to it that I have seen, mainly in
> Usenet.
>
> Apparently, the method involves calculation of a factor (let's call it
> MR) as MR=|(Zl-Zo*)/(Zl+Zo)|, and the line loss between two points is
> given by 10*log((1-MR1**2)/(1-MR2**2)) where MR1 and MR2 are the
> values for MR at points 1 and 2.
>
> I have compared the results of this on lines with Xo<0 and high VSWR,
> and the results are identical to calcuating the loss by subtraction of
> Real(VI*) at point 1 from Real(VI*) at point 2.
>
> Has anyone a link to, or a reference to the derivation of the formula?
>
> Owen

In my first edition of "Paul and Nasar", p 335, dealing with lossy
transmission lines; there is a footnote as follows:

For the interested reader, a very thorough discussion of the derivation the
transmission-line equations is given in R. B. Adler, L. J. Chu, and R. M.
Fano , "Electromagnetic Energy Transmission and Radiation", Wiley, New York,
1960, chap. 9.

I have never seen the reference, so cannot comment, but may be available in
a university library. Wonder if that is the Fano in "Fano's limit".

73,

Frank

2427. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 03:05:03 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <g_0ze.1156$xE5.972@fe07.lga>
Source record: 73693

"Owen" <owen@no.where> wrote in message
news:3i1pc1llb0khd322qqtlfn2a9vet93a50r@4ax.com...
> On Wed, 6 Jul 2005 21:23:52 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>
> >> If you like, I am saying your approach is valid for lossless lines, it
> >> is also valid for all distortionless lines, but I think it is not
> >> accurate for lines in the general case because it isn't correct if
> >> Xo!=0.
> >>
> >> Owen
> >
> >Owen, if X = 0 there is no attenuation, but you're saying my material is
> >invalid if X is not 0? I'm sorry, but I'm confused.
>
> Walt, I don't think that Xo=0 implies zero attenuation, but it is true
> that if the line has zero attenuation that Xo=0.
>
> I think the method in your appendix is true when Xo=0, and an
> approximation where Xo!=0.
>
> I have just added a function (DLoss) to calculate loss as per your
> appendix to the graphic at http://www.vk1od.net/temp/LineLoss.htm ,
> and it can be seen that in this (perhaps extreme) case, it is not a
> very good approximation.
>
> I also added the same calcs for f=100MHz and Zo is much closer to
> real, and it can be seen the approximation is much closer.
>
> Owen
>
I'll have to study your math, Owen, to let it sink in. I don't get it on the
first glance.

Walt

2428. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 03:42:36 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <weadnYP1B5U-OVHfRVn-qA@vnet-inc.com>
Source record: 73694

Wow, what a great set of pictures of "how things used to was"!!!!!!!!!!!!

You really had to be dedicated and love what you were doing.

2429. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 03:50:39 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <fD1ze.58201$du.7009@bignews1.bellsouth.net>
Source record: 73695

We need you to prove you are who you say you are, so please answer these
questions:
1. Do you know who your daddy is ?
2. If so, can you spell his last name ?
3. How many Floridians does it take to cast one Republican vote?
4. Do you have anything against Republican crickets?

"George Washington Bush" <gb@presidents.r.us.gov> wrote in message
news:4qmkdpfrb723j7u.060720051413@kirk...
> Hal;
>
> Now don't be picking on my good buddy arnie, he is doing a fine job
> out there in california for me.
>
> We need him to get those drivers licenses for the illegal aliens. By
> this time next year I would like to have all the truck drivers which
> are buying homes, cars and sending their children through college
> reduced to receiving welfare checks.
>
> It doesn't take a genius to drive a truck and that is one of the last
> areas a working fellow can still earn a half decent living, time for
> those illegals to start driving those big rigs for a minimum wage.
>
> With those illegals living 10 family's to a home they can get by on a
> lot less.
>
> Get with the plan man. We used to export our standard of living to the
> rest of the world pulling them out from under poverty, disease and
> death, but that got darn tiring (and our profits from ripping them off
> under that system were too low.) We replaced that tired old plan with
> the new one, 'import 3'rd world conditions to america.' Now get out
> there, support your president, your congress and the supreme court and
> employ an illegal alien today.
>
> I am counting on you to be a team player here hal.
>
> Now put down those silly crickets and the thermometer and get to work
> man!
>
> G.W.B.
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:bjXye.46379$Tt.26779@bignews3.bellsouth.net...
> > Yah

> > That's why I use a thermometer -
> > - or - make Arnold count the chirps for me.
> > He's a real chirpinator
> >
> >
> >
> > "Arnold Schwarzenegger" <arnie@terminators.org> wrote in message
> > news:ir7wmcjgcvulegj.050720052100@kirk...
> >> only girly men count cricket chirps
> >>
> >> arnold
> >>
> >
> >
> >
>
>
>

2430. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 03:50:45 UTC
From: Owen <owen@no.where>
Message-ID: <s99pc1lp4gjeik2vbg242cf3hbaujbb97i@4ax.com>
Source record: 73696

On Wed, 6 Jul 2005 23:05:03 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>>
>> I have just added a function (DLoss) to calculate loss as per your
>> appendix to the graphic at http://www.vk1od.net/temp/LineLoss.htm ,
>> and it can be seen that in this (perhaps extreme) case, it is not a
>> very good approximation.
>>
>> I also added the same calcs for f=100MHz and Zo is much closer to
>> real, and it can be seen the approximation is much closer.
>>
>> Owen
>>
>I'll have to study your math, Owen, to let it sink in. I don't get it on the
>first glance.

Sorry all,

The function for DLoss on the web page was for the additional loss due
to SWR. I have now added a term to the DLoss function to include the
matched line loss and updated the web page.

The outcome hasn't changed in that the two methods of calculating loss
only agree if Zo is real.

Owen
--

2431. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 03:57:37 UTC
From: Owen <owen@no.where>
Message-ID: <b1apc1936d1o8n32op9fnojbjv5bmlolou@4ax.com>
Source record: 73697

On Wed, 6 Jul 2005 21:42:36 -0600, "Topaz305RK" <k7sam@arrl.net>
wrote:

>Wow, what a great set of pictures of "how things used to was"!!!!!!!!!!!!
>
>You really had to be dedicated and love what you were doing.
>
>
Or to be just a little crazy... but as they say, you don't have to be
crazy to be a ham, but it helps.

Field day activities were fun. Somehow replacing cubic metres of field
equipment with a shoebox sized "black box" that does 100W of SSB from
160m to 7ocm has eliminated much of the fun.

We are seduced by radios with lots of features in silicon, often
without much regard for how it performs as a receiver, things that we
can't fix, whether because of a lack of knowledge, test jigs,
alignment / diagnostic software or board rework equipment. We have
come a long way!

Owen

--

2432. Mechanical switch ratings

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 04:24:58 UTC
From: Larry Benko <lbenko@comcast.net>
Message-ID: <P4udndyS7rLVM1HfRVn-vg@comcast.com>
Source record: 73698

I have used some toggle switches as RF switches in the HF range in the past without problems but want to use one in a somewhat higher power application. Toggle switches generally are only rated at voltages such as 120VAC (50-60Hz assumed), 250VAC (50-60Hz again), or 30VDC. Looking at the specs for vacuum relays show that a current derating of ~3X when going from 60Hz to 30 MHz seems about average. Is there any reason why a similar derating would not apply to a mechanical toggle switch. E.g. would a miniture toggle switch rated at both 250VAC 2A and 120VAC 5A handle 100W at 28MHz (50 ohm impedance assumed)? I was not going to do any hot switching.

73, Larry W0QE

2433. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 05:38:42 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <yc3ze.36493$qm.36385@bignews5.bellsouth.net>
Source record: 73699

Oh Dang!! Now I have to go add some more to my car...
<grin> WB9SMX Just hate to be out done,, get me one o them buses to
have room too ;-)

BTW That wasn't Dales Dead Bug van from King of the Hill was it? lol

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:dagtcc$dt9$1@reader01.news.esat.net...
> never saw a car with 6 big antennas(3-4 feet)and 3 small ones all on mag
> mounts...WOW
>
>
>

2434. Re: Tram Penetrator dipole and other things

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 10:17:23 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120731443.031536.73700@g44g2000cwa.googlegroups.com>
Source record: 73700

Same as Monkey Made for CB

2435. Re: Electrical length

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 10:37:49 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <1pednZqqGo-6m1DfRVn-2g@comcast.com>
Source record: 73701

Hal Rosser wrote:
> We need you to prove you are who you say you are, so please answer these
> questions:
> 1. Do you know who your daddy is ? ... Abraham Lincoln
> 2. If so, can you spell his last name ? ... Penny [One Cent]
> 3. How many Floridians does it take to cast one Republican vote? ... Ain't enough
> 4. Do you have anything against Republican crickets? ... Only if they don't vote!

I just love these defining moments ....
>

2436. Re: Mechanical switch ratings

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 12:58:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42cd27e5$1_1@spool9-west.superfeed.net>
Source record: 73702

Larry Benko wrote:
> I have used some toggle switches as RF switches in the HF range in the
> past without problems but want to use one in a somewhat higher power
> application. Toggle switches generally are only rated at voltages such
> as 120VAC (50-60Hz assumed), 250VAC (50-60Hz again), or 30VDC. Looking
> at the specs for vacuum relays show that a current derating of ~3X when
> going from 60Hz to 30 MHz seems about average. Is there any reason why
> a similar derating would not apply to a mechanical toggle switch. E.g.
> would a miniture toggle switch rated at both 250VAC 2A and 120VAC 5A
> handle 100W at 28MHz (50 ohm impedance assumed)? I was not going to do
> any hot switching.

Something like that usually works for matched lines. Where I got into
trouble is trying to use toggle switches on ladder-line carrying an
SWR of 20:1. It fried an RS heavy duty toggle switch. You can avoid
such trouble by switching to knife switches with their wider spacings.
--
73, Cecil http://www.qsl.net/w5dxp

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2437. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 13:43:34 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Ukaze.722$yL4.95@fe02.lga>
Source record: 73703

"Me" <Me@shadow.orgs> wrote in message
news:Me-B48492.14414606072005@netnews.worldnet.att.net...
> In article <11com00fa5n1r74@corp.supernews.com>,
> Roy Lewallen <w7el@eznec.com> wrote:
>
> > That's really just one antenna with six feedpoints.
> >
> > Roy Lewallen, W7EL
>
> Maybe a Phased Array for signal tracking........
>
>
> Me who used to drive one of those for the FCC...........

Who is 'Me'? I used to drive one 'a them things too, before and during WW2.

Walt, w2du

2438. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 15:09:56 UTC
From: luke <luke@noaspamforme.com>
Message-ID: <42CD45C3.7D72BFA3@noaspamforme.com>
Source record: 73704
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Your trees will SNAP and your tower will fall down.

Sure, your antenna have little wind load, however,
how much wind load is the TOWER ?

Please inventory your gear for the ESTATE sale !

Luke
>>
Yes trees do sway but as the photos
show they don't sway where the guys are attached.

2439. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 16:23:24 UTC
From: richardharrison@webtv.net
Message-ID: <21513-42CD56FC-70@storefull-3254.bay.webtv.net>
Source record: 73705

Owen wrote:
"Has anuypne a link to or reference to derivation of the formula?"

My 19th edition of the ARRL Antenna Book treats additional power loss due to SWR on page 24-10.

Best regards, Richard Harrison, KB5WZI

2440. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 17:09:06 UTC
From: Out2Lunch <nospam@lunchbox.com>
Message-ID: <GYGdnRYbXfo5_FDfRVn-pQ@adelphia.com>
Source record: 73706
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Anyone who would fault your tower installation has a serious case of "penis envy". It looks great and I will bet it will stand the test of time. It is a shame that every user group on the internet has so many weenie pricks lurking trying to find fault with every post. I'd be proud of a tower like that so don't let the idiots detract from it.
73!

"Charlie" <charlie@earthlink.com> wrote in message
news:11bsdqpir7o54fa@news.supernews.com...
> 75 ft guyed tower with 21 foot mast. 2M M2 HO LOOP antenna at 95 ft. M2
> 2M9SSB beam antenna at 90 ft.
> The difference from antennas at around 30 ft to the same antennas at 90-95
> ft is astonishing. Anyone considering raising their antennas should "just
> do it"
>
> 1. http://deepsouthnet.net/tower.html
>
> I am founder and net control for the Deep South 2 Meter SSB Net located in
> Union,Mississippi. Come join us 7 nights a week at 8:30PM CDT on 144.240
> MHz USB. We have 10-15 or more check-ins nightly with 38 on our All Time
> Total Roster and nearly 25 on our Active Roster! The net has grown
> from it's first Roll Call on April 8,2005 at an amazing rate.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>
>

2441. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 17:41:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dajpga$fq2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73707

Walt,

As suggested, I looked up your paper in your website about "Additional power lost in trans-lines due to SWR."

It is applied only to coaxial lines, of course, because the usual SWR meter cannot be used on balanced twin lines. Actually it applies to all lines.

I think your calculating formula is an approximation. It is due to the SWR meter discarding all information about the PHASE ANGLE of reflections. ie., the angle of the reflection coefficient (Gamma) from which you have used to calculate SWR in your explanation.

Gamma has an angle which can lie in any of the four quadrants. Theoretically this cannot be neglected.

I can't prove the approximation because I havn't the mental energy to do the exact calculations involved.

For interest, my program SWRARGUE calculates the exact power lost in the line for any SWR for a given input power of 100 watts. Power lost is then a percentage of input power. Transmission efficiency then follows. Note that the internal resistance of the transmitter or conjugate matching is immaterial.

It does this by first of all calculating the input impedance of the line, when terminated with the antenna feedpoint impedance, in the form of Rin + jXin.

From the input power it then calculates the line input current and volts.

From normal transmission line formulae it then calculates line output current and volts.

It then calculates the power dissipated in the antenna input resistive component. This is the power radiated.

The difference between radiated power and 100 watts line input must be the power lost in the line. Line efficiency and the decibels follow.

The excess loss due to SWR is the difference between actual loss and the line's overall matched attenuation, which is an input to the program. Which, to me, appears to be an artificial way of looking at things and your approximation arises from it.

The way to prove the point is to calculate the excess loss due to SWR
your way and compare with the results from my program.

I wouldn't be surprised if there's no significant difference. The
matter about the imaginary meanings of SWR and confusing reflected
power is not worth the trouble of arguing about.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2442. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 18:54:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dajtpksqo1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73708

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:21513-42CD56FC-70@storefull-3254.bay.webtv.net...
> Owen wrote:
> "Has anuypne a link to or reference to derivation of the formula?"
>
> My 19th edition of the ARRL Antenna Book treats additional power
loss
> due to SWR on page 24-10.
>
> Best regards, Richard Harrison, KB5WZI
>
=======================================

On this subject the only hope of discovering the exact loss on a line
with SWR is to do an exact complex mathematical analyis for yourseslf
and hope you don't make any mistakes.

For starters, the calculated curves shown in ARRL publications over
the years, as plagiarised by the RSGB, are in error. But they are near
enough not to lose any sleep about.

Why the importance attatched to this line feature I can't imagine.

Reg.

2443. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 19:30:34 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c5788$42cd82dd$97d55c31$13912@ALLTEL.NET>
Source record: 73709

Reg, our thoughts and prayers go out to your countrymen after the cowardly attacks on your transportition system

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dajpga$fq2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Walt,
>
> As suggested, I looked up your paper in your website about "Additional
> power lost in trans-lines due to SWR."
>

2444. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 19:39:40 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42cd84b2.26069916@news.crosslink.net>
Source record: 73710

On Wed, 6 Jul 2005 23:48:53 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Owen,
>
>Your formula is too short to be anything but an approximation. It may
>be a very good approximation. On the other hand it may contain
>exactly the same errors as whatever you may have checked it against.
>
>The exact formula is exceedingly involved and occupies about half a
>dozen lines of source code in new program SWRARGUE which by
>coincidence I have just placed in my website.

Dear Reg,

I do not believe in coincidence (that's how we knew when the 2nd
airplane flew into the World Trade Center, that it was not an
accident.)

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2445. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 19:43:22 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <cCfze.29350$B_3.25618@fe05.lga>
Source record: 73711

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dajpga$fq2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Walt,
>
> As suggested, I looked up your paper in your website about "Additional
> power lost in trans-lines due to SWR."
>
> It is applied only to coaxial lines, of course, because the usual SWR
> meter cannot be used on balanced twin lines. Actually it applies to
> all lines.

Reg, my Appendix does not apply only to coaxial lines. Like you also said, it applies to all lines. Balanced twin lines also have SWR, as you already know, but my words didn't limit measurements of SWR only to coaxial lines. There are ways of measuring the SWR on open-wire lines other than instruments limited to use on coaxial lines.

> I think your calculating formula is an approximation. It is due to the
> SWR meter discarding all information about the PHASE ANGLE of
> reflections. ie., the angle of the reflection coefficient (Gamma) from
> which you have used to calculate SWR in your explanation.

No approximations at all, Reg. As you know, reflection is the cause of SWR, not the reverse. Further, the coefficient of the reflection that results in SWR is the magnitude of the complex value in polar form. Therefore the magnitude of the SWR is determined by the complex reflection coefficient, resulting in the correct value, not an approximation. The complex reflection coefficient can be used to determine the complex impedance. SWR simply lacks the angle of the polar information, and is thus unable to supply the required information to determine complex impedance. Thus the value of SWR does provide the polar magnitude of the complex reflection coefficient, not just the |rho| value.

> Gamma has an angle which can lie in any of the four quadrants.
> Theoretically this cannot be neglected.

And I submit, Reg, that although the numerical value of the angle is omitted, the effect of the angle has not been neglected.

> I can't prove the approximation because I havn't the mental energy to
> do the exact calculations involved.

I'm saving you the mental energy, Reg, because there are no approximations involved--the exact calculation has been made.

For interest, my program SWRARGUE calculates the exact power lost in
> the line for any SWR for a given input power of 100 watts. Power lost

> is then a percentage of input power. Transmission efficiency then
> follows. Note that the internal resistance of the transmitter or
> conjugate matching is immaterial.

I downloaded your SWRARGUE program, Reg, and ran it. The numbers using your program and those using my Appendix 8 are identical.

snip

> The excess loss due to SWR is the difference between actual loss and
> the line's overall matched attenuation, which is an input to the
> program. Which, to me, appears to be an artificial way of looking at
> things and your approximation arises from it.

As I said above, Reg, the values obtained using your program and those using my Appendix 8 are identical. My method does not reveal any approximate values, so it cannot be an artificial way of viewing the procedure.

> The way to prove the point is to calculate the excess loss due to SWR
> your way and compare with the results from my program.

As I just said, I have compared my results with those of your program and the resulting numbers are identical.

> I wouldn't be surprised if there's no significant difference. The
> matter about the imaginary meanings of SWR and confusing reflected
> power is not worth the trouble of arguing about.

Not only is there no significant difference, Reg, there is NO difference. Think about it.

Walt, W2DU

2446. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 21:27:37 UTC
From: Owen <owen@no.where>
Message-ID: <q97rc1h10bg5bipdedp2trcqfpcm46ephs@4ax.com>
Source record: 73712

On Thu, 7 Jul 2005 11:23:24 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Owen wrote:
>"Has anuypne a link to or reference to derivation of the formula?"
>
>My 19th edition of the ARRL Antenna Book treats additional power loss
>due to SWR on page 24-10.

Richard, I have an 18th edition, and the formula it gives does not factor in the angle of the reflection, and so is an approximation.

I don't know if that applies to the 19th edition.

Back to my original post, I was not in search of a formula for an exact solution, nor a reason to want an exact solution, but rather whether anyone has seen the derivation of Michaels formula quoted in QST Nov 97.

Thanks for your help.

Owen

--

2447. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 21:56:26 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <hdidnQkZw8WROFDfRVn-2A@comcast.com>
Source record: 73713
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Out2Lunch wrote:

> Anyone who would fault your tower installation has a serious case of "penis
> envy". It looks great

Don't be fucking stupid. The fact that we are amateurs does not give us
a license to go out and be complete idiots when it comes to erecting
structures which endanger lives and property in the case of a collapse.
His installation is a textbook of how not to approach erecting a tower,
and several people already pointed out why. If he only spent a few hours
Googling for tower tips and reading the Rohn catalog, he could have
avoided at least the most blatant mistakes he made.

"It looks great"... Yes, I'm sure this is the primary concern of
structural engineers everywhere, that their projects "look great" in jpegs.

> and I will bet it will stand the test of time.

I will bet that if I kick a grizzly bear in the balls, I will stand the
test of time, too. The only question is how much time we're talking about.

> It is a shame that every user group on the internet has so many weenie pricks
> lurking trying to find fault with every post. I'd be proud of a tower like
> that so don't let the idiots detract from it.

The problem is that every ham's action reflects on all of us, both in
the positive and in the negative respect. His installation which flies
in the face of everything we know about tower safety and precautions
makes all of us look no better than the average dumbass CB trucker.

You can be proud of anything you like, but that doesn't make it safe and
sound.

73 .... WA7AA

2448. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 22:16:23 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <552ef$42cda9bb$97d55c31$21581@ALLTEL.NET>
Source record: 73714
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

And your liberal use of profanity accomplishes the exact same thing. Can you not express yourself without sounding like you belong on Ch 19?

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message news:hdidnQkZw8WROFDfRVn-2A@comcast.com...

***** Profanity snipped ******

> The problem is that every ham's action reflects on all of us, both in
> the positive and in the negative respect. His installation which flies
> in the face of everything we know about tower safety and precautions
> makes all of us look no better than the average dumbass CB trucker.
>
>
> 73 .... WA7AA

2449. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 22:46:36 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <_hize.31144$B_3.26260@fe05.lga>
Source record: 73715

"Owen" <owen@no.where> wrote in message
news:q97rc1h10bg5bipdedp2trcqfpcm46ephs@4ax.com...
> On Thu, 7 Jul 2005 11:23:24 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
> >Owen wrote:
> >"Has anuypne a link to or reference to derivation of the formula?"
> >
> >My 19th edition of the ARRL Antenna Book treats additional power loss
> >due to SWR on page 24-10.
>
> Richard, I have an 18th edition, and the formula it gives does not
> factor in the angle of the reflection, and so is an approximation.
>
> I don't know if that applies to the 19th edition.
>
> Back to my original post, I was not in search of a formula for an
> exact solution, nor a reason to want an exact solution, but rather
> whether anyone has seen the derivation of Michaels formula quoted in
> QST Nov 97.
>
> Thanks for your help.
>
> Owen
>
Well, Owen, if you believe the expressions I presented in Reflections 2 are
approximate, then why do I get the correct answers?

Walt, W2DU

2450. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-07 23:59:15 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-69639F.15593107072005@netnews.worldnet.att.net>
Source record: 73716

In article <Ukaze.722$yL4.95@fe02.lga>,
"Walter Maxwell" <walt@w2du.com> wrote:

> Who is 'Me'? I used to drive one 'a them things too, before and during WW2.
>
> Walt, w2du

"Me" is an alias for a well know Radioman/FCC Field Agent, who is
nearing the end of his natural life, but finds time to kabitz here in
NewsGroups....

but, yours didn't have Phased Verticals, with electronic steering, and
a Right/Left meter just above the steering wheel to guide you in on the
signal....

Me

2451. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 00:25:37 UTC
From: Owen <owen@no.where>
Message-ID: <87hrc19htqbt563esvircc4qin1h5j43lm@4ax.com>
Source record: 73717

On Thu, 7 Jul 2005 18:46:36 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>Well, Owen, if you believe the expressions I presented in Reflections 2 are
>approximate, then why do I get the correct answers?

It seems to me that the method requires that rho is not greater than
one (otherwise the denominator (1-rho2**2) becomes negative, which is
a nonsense). This hints that it does not apply in the general case
where rho *can* be greater than 1, and is therefore probably limited
to cases of distorionless line (Xo=0).

To avoid publishing "ugly" maths here, I have put a page up at
http://www.vk1od.net/temp/reflection.htm with a bunch of expressions
for conditions on the modelled line, including functions for power
flow at an arbitrary point, Loss calculated from powerflow at two
points and loss based on your loss formula + matched line loss.

The graphs show the loss from point x to the load, x is 0 at the load
and negative toward the source.

The algorithms produce quite different results. If I ignore Xo (ie
force Zo to be real), then both algorithms produce the same results.

Have I made a mistake in the maths, or in modelling the scenario?

Owen
--

2452. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 00:40:49 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <3Zjze.1144$yL4.573@fe02.lga>
Source record: 73718

"Owen" <owen@no.where> wrote in message
news:87hrc19htqbt563esvircc4qin1h5j43lm@4ax.com...
> On Thu, 7 Jul 2005 18:46:36 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>
> >Well, Owen, if you believe the expressions I presented in Reflections 2
are
> >approximate, then why do I get the correct answers?
>
> It seems to me that the method requires that rho is not greater than
> one (otherwise the denominator (1-rho2**2) becomes negative, which is
> a nonsense). This hints that it does not apply in the general case
> where rho *can* be greater than 1, and is therefore probably limited
> to cases of distorionless line (Xo=0).
>
> To avoid publishing "ugly" maths here, I have put a page up at
> http://www.vk1od.net/temp/reflection.htm with a bunch of expressions
> for conditions on the modelled line, including functions for power
> flow at an arbitrary point, Loss calculated from powerflow at two
> points and loss based on your loss formula + matched line loss.
>
> The graphs show the loss from point x to the load, x is 0 at the load
> and negative toward the source.
>
> The algorithms produce quite different results. If I ignore Xo (ie
> force Zo to be real), then both algorithms produce the same results.
>
> Have I made a mistake in the maths, or in modelling the scenario?
>
> Owen

Thanks for responding, Owen, but I'm going to be otherwise occupied until
Saturday, so the fact that I don't respond immediately doesn't mean that I'm
ignoring you.

Walt

2453. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 01:00:14 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <ad-dnTSQS_2CTVDfRVn-hw@comcast.com>
Source record: 73719
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Fred W4JLE wrote:

> And your liberal use of profanity accomplishes the exact same thing. Can you
> not express yourself without sounding like you belong on Ch 19?

Nice logic, albeit not much surprising in these "morality" driven times:
"liberal use of profanity" is of the same impact and scope as erecting
an unsafe tower.

However, let me rewrite my profanities for all of you who subscribe to
the notion that eradicating a few words will solve all the world's problems:

Don't be fucking stupid. ==> Don't be having sexual relations not so smart.

if I kick a grizzly bear in the balls ==> if I kick a grizzly bear in
the testicles

average dumbass ==> average dumb behind

I hope no one suffered any extensive trauma from reading my profanities.

73 ... WA7AA

2454. SWR losses in 300 ohm TV twinlead vs coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 02:18:12 UTC
From: Buck <iam@this.site>
Message-ID: <48nrc1lt2gp0v0lntelou088gd0v7j1co4@4ax.com>
Source record: 73720

I have installed a 135 foot dipole which I tune for all bands but 6
and 20 (I have dipoles cut for those bands.)

Well, one of the locals and I were discussing a loop antenna. He
insists that the loop is better fed with 65 feet of 75 ohm coax and
then 50 ohm coax to the tuner for the radio. I was saying there would
be less loss by using a 300 ohm twin lead since it was being tuned for
all the HF bands and 6 meters, with open wire or ladder line being
better options. He insists that if the loop is properly made, it is
better to feed it with the 75/50 combo which properly matches the
antenna.

any thoughts?

--
73 for now
Buck
N4PGW

2455. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 02:31:31 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <70f97$42cde587$97d55c31$7403@ALLTEL.NET>
Source record: 73721
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

I guess then we are to conclude that you can not express outrage at a situation with out gutter language.

You Sir are the one with flawed logic, regardless of the perceived offense one sees in the construction of a tower, it conveys no license to assail the members of the group with gutter language.

Might I suggest a course in creative writing at your local adult education center? It may expand your vocabulary beyond the profane utterances we have seen so far.

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message news:ad-dnTSQS_2CTVDfRVn-hw@comcast.com...
> Fred W4JLE wrote:
>
> > And your liberal use of profanity accomplishes the exact same thing. Can you
> > not express yourself without sounding like you belong on Ch 19?
>
> Nice logic, albeit not much surprising in these "morality" driven times:
> "liberal use of profanity" is of the same impact and scope as erecting
> an unsafe tower.
>

2456. Re: SWR losses in 300 ohm TV twinlead vs coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 02:42:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42cde92d$1_2@spool9-west.superfeed.net>
Source record: 73722

Buck wrote:

> I have installed a 135 foot dipole which I tune for all bands but 6
> and 20 (I have dipoles cut for those bands.)
>
> Well, one of the locals and I were discussing a loop antenna. He
> insists that the loop is better fed with 65 feet of 75 ohm coax and
> then 50 ohm coax to the tuner for the radio. I was saying there would
> be less loss by using a 300 ohm twin lead since it was being tuned for
> all the HF bands and 6 meters, with open wire or ladder line being
> better options. He insists that if the loop is properly made, it is
> better to feed it with the 75/50 combo which properly matches the
> antenna. any thoughts?

The 75 ohm matching section is for a single frequency (narrow-banded).
On that single frequency, it is probably just as good as the twin lead
model. However, on other bands than the one for which it is designed,
it will probably not function as well as the twin lead model. Your
"local" just proves that a little knowledge is a dangerous thing.
Do you want a multi-band antenna or a narrow-banded single-band antenna?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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2457. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 03:06:19 UTC
From: Hank Oredson <horedson@earthlink.net>
Message-ID: <L4mze.2231$BK1.1039@newsread3.news.pas.earthlink.net>
Source record: 73723
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:70f97$42cde587$97d55c31$7403@ALLTEL.NET...
>I guess then we are to conclude that you can not express outrage at a
> situation with out gutter language.
>
> You Sir are the one with flawed logic, regardless of the perceived offense
> one sees in the construction of a tower, it conveys no license to assail
> the
> members of the group with gutter language.
>
> Might I suggest a course in creative writing at your local adult education

Adult education center ???
You assume you address an adult.
I see a middle school kid whos mommy left the computer logged in.

> center? It may expand your vocabulary beyond the profane utterances we
> have
> seen so far.
>
>
>
> "Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
> news:ad-dnTSQS_2CTVDfRVn-hw@comcast.com...
>> Fred W4JLE wrote:
>>
>> > And your liberal use of profanity accomplishes the exact same thing.
>> > Can
> you
>> > not express yourself without sounding like you belong on Ch 19?
>>
>> Nice logic, albeit not much surprising in these "morality" driven times:
>> "liberal use of profanity" is of the same impact and scope as erecting
>> an unsafe tower.

--

... Hank

http://home.earthlink.net/~horedson
http://home.earthlink.net/~w0rli

2458. Re: SWR losses in 300 ohm TV twinlead vs coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 04:16:30 UTC
From: dplatt@radagast.org
Message-ID: <11crvguklf0s700@corp.supernews.com>
Source record: 73724

In article <48nrc1lt2gp0v0lntelou088gd0v7j1co4@4ax.com>,
Buck <iam@this.site> wrote:

>I have installed a 135 foot dipole which I tune for all bands but 6
>and 20 (I have dipoles cut for those bands.)
>
>Well, one of the locals and I were discussing a loop antenna. He
>insists that the loop is better fed with 65 feet of 75 ohm coax and
>then 50 ohm coax to the tuner for the radio. I was saying there would
>be less loss by using a 300 ohm twin lead since it was being tuned for
>all the HF bands and 6 meters, with open wire or ladder line being
>better options. He insists that if the loop is properly made, it is
>better to feed it with the 75/50 combo which properly matches the
>antenna.

>any thoughts?

I think that's going to depend very much indeed on the size of the
loop and on the band(s) on which you're trying to use it.

If I recall properly, a 1-wavelength resonant loop will have a
feedpoint Z of around 100 ohms. A quarter-wavelength section of
75-ohm coax will transform this down to something close to 50 ohms,
and you'll have a good match.

This specific case doesn't generalize, though. If you use the loop on
the second-harmonic band, its feedpoint impedance will be a higher (I
think), the "quarter-wavelength" 75-ohm section will now be about a
half-wavelength long and will mirror the feedpoint impedance to the
50/75-ohm junction. You'll see a higher SWR (maybe 2:1 or worse?) at
the junction and thus at the transmitter. Same problem, even moreso,
on higher-numbered harmonic bands. It'll likely be usable, but I'd
guess that losses may become significant depending on the coax type
and length.

On non-harmonically-related bands, the situation could be even worse
than that, with a very high or very reactive impedance at the
loop/75-ohm-junction point, and a high SWR and significant losses all
the way to your tuner.

65 feet of electrical length is roughly a quarter-wavelength at 80
meters, but that neglects the velocity factor of the cable. A setup
using this sort of matching arrangement with 65 physical feet of
75-ohm coax would behave somewhat differently depending on whether the
75-ohm coax was solid-dielectric or foam/air dielectric, due to the
difference in the velocity factors.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2459. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 05:01:14 UTC
From: Out2Lunch <nospam@lunchbox.com>
Message-ID: <qpadnfspDq0XlVPfRVn-hw@adelphia.com>
Source record: 73625
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Obviously you haven't listened to 75 meters lately.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:552ef$42cda9bb$97d55c31$21581@ALLTEL.NET...
> And your liberal use of profanity accomplishes the exact same thing. Can
> you
> not express yourself without sounding like you belong on Ch 19?
>
>
> "Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
> news:hdidnQkZw8WROFDfRVn-2A@comcast.com...
>
> ***** Profanity snipped ******
>
>> The problem is that every ham's action reflects on all of us, both in
>> the positive and in the negative respect. His installation which flies
>> in the face of everything we know about tower safety and precautions
>> makes all of us look no better than the average dumbass CB trucker.
>>
>>
>> 73 .... WA7AA
>
>

2460. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 05:55:51 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <qqqdnb4yCdH3iFPfRVn-hw@comcast.com>
Source record: 73626
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Fred W4JLE wrote:

> I guess then we are to conclude that you can not express outrage at a
> situation with out gutter language.

The number one fallacy in the Internet communication of any kind is the
assumption of certain posters that they are the official spokespersons
for everyone in the world. Hence "we".
Another fallacy is the projection of one's own morality standards onto
the entire world. Hence "gutter language".

> You Sir are the one with flawed logic, regardless of the perceived offense
> one sees in the construction of a tower, it conveys no license to assail the
> members of the group with gutter language.

One replies to a post in the style and the manner of the original
poster. I see his (anonymous to begin with) post as a clear assault on
everyone's intelligence and I reply accordingly.

> Might I suggest a course in creative writing at your local adult education
> center? It may expand your vocabulary beyond the profane utterances we have
> seen so far.

What makes you think that using "gutter language" somehow automatically
decreases one's vocabulary? Perhaps it is no coincidence that most of
the morality police today are strong proponents of this modern day
phrenology equivalent?

Your OO status does not extend to the Internet, Fred. Clean up the ham
bands from bad ops of all kind and leave the newsgroups alone.

73 ... WA7AA

2461. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 05:58:37 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <qqqdnbkyCdGSi1PfRVn-hw@comcast.com>
Source record: 73627
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Hank Oredson wrote:

> Adult education center ???
> You assume you address an adult.
> I see a middle school kid whos mommy left the computer logged in.

Memetics at its best. Why don't you write a melody to this oldie?

2462. Re: SWR losses in 300 ohm TV twinlead vs coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 06:34:43 UTC
From: nm5k@wt.net
Message-ID: <1120804483.046832.236920@g47g2000cwa.googlegroups.com>
Source record: 73628

He's confusing the operation of a single band loop, to
your planned all band operation. If single band, I would
prefer his method. If all band, I would prefer yours. The only
downside
to the 300 ohm line is it gets pretty lossy when wet. But 450 ladder
line with
"windows" would cure most of that problem. On the upper freq's
with a high SWR, the 300 ohm line would have less loss than coax.
On VHF/UHF, the difference is drastic. If you feed a TV antenna with
rg-6
coax and balun, you will have a good bit more loss than using 300 ohm
line.
On UHF the difference will be fairly huge. But expect a blackout when
it
rains hard. The local ATV machine would turn to snow. Once the rain
quit, it would gradually come back. :/ If you are working all bands,
and
using a tuner, there is no reason whatsoever to tune or match the
antenna to
the line. Waste of time...
MK

2463. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 06:41:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dal77caca1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73629

"Fred W4JLE" wrote -
> Reg, our thoughts and prayers go out to your countrymen after the
cowardly
> attacks on your transportition system.

Fred, your sincere sentiments are very much appreciated. But we also
have in mind the 100's of thousands of Iraqis who have died under
attack during the last dozen years.

Yours, Reg.

2464. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 06:56:21 UTC
From: atec <atec77@XXhotmail.com>
Message-ID: <42ce2330$1@dnews.tpgi.com.au>
Source record: 73630

Reg Edwards wrote:
> "Fred W4JLE" wrote -
>
>>Reg, our thoughts and prayers go out to your countrymen after the
>
> cowardly
>
>>attacks on your transportition system.
>
>
> ----------
>
> Fred, your sincere sentiments are very much appreciated. But we also
> have in mind the 100's of thousands of Iraqis who have died under
> attack during the last dozen years.
> ----
> Yours, Reg.
>
>
I see you ignored the fact that the internal strife and dictatorship
murdered far more per day than any out side influence may have caused.

2465. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 07:02:57 UTC
From: nm5k@wt.net
Message-ID: <1120805396.429011.168330@f14g2000cwb.googlegroups.com>
Source record: 73631
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Anyone who would fault your tower installation has a serious case of
"penis
envy". It looks great and I will bet it will stand the test of time. It
is a
shame that every user group on the internet has so many weenie pricks
lurking trying to find fault with every post. I'd be proud of a tower
like
that so don't let the idiots detract from it.

I haven't faulted it cuz I haven't had time to even look at it.
But if this many people are ragging on it, I'm sure they have
a pretty good reason. Just the "sins" I've read about are
pretty serious. And no, I don't have pecker envy...I have two
towers. One, a stout tilt/crank. If I were to envy a tower, I would
envy one worth envying...
There are some lurking here that have towers that would
make his look like an overgrown tinker toy contraption.
He may be a bit put out that many are ragging his tower,
but if I were he, I would pay attention. Most comments I see
from the raggers look to be on the money. You don't take
chanced with towers. That sucker can fall *through* a
house, and kill anyone it hits. Don't believe me? Check the
stats on hurricane deaths. Many are killed by trees falling
through their houses. That tower is quite capable of thinking
it's a tree. It might not be green and have pretty leaves, but it will

still kill you deader than a squashed june bug.
MK

2466. Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 11:04:02 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1120820642.403459.107860@g49g2000cwa.googlegroups.com>
Source record: 73632

I am running a President Grant am/usb/lsb and on Channel 1 the SWR is 1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It really isn't worth doing an adjustment on this antenna setup is there? The antenna is a single Yagi beam made up of two Tram Penetrators (Monkey Made's). I think that it is sold as a 1/2 wave antenna and have heard that it is a 5/8 wave. This antenna can be set for 10 meter usage also. It really looks weird up there without a reflector on it. I may put a reflector on it but am stumped as to length of the reflector (ging to be made of 1/2" electrical conduit). I can't find the formula for the length taking into consideration of the diameter of the reflector. I believe that the 'stand-by' one should use 468/f. Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is the length of the driven element is less than 12' because of the antennas having the centerload coil in them.

What do you think?

2467. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 11:46:13 UTC
From: Dave <noone@nowhere.com>
Message-ID: <UcGdnZ7K9sES-lPfRVn-sA@crocker.com>
Source record: 73633

yes, keep trimming until the swr is 1:1.0001 or less across all the channels. anything higher than that will absolutely fry your transmitter and cause you to go sterile because of all the reflected power leaking out of your rig. electrical conduit is such a great conductor that it will help the swr also by sucking all the power that would have been reflected back out of the coax, i would recommend 17.22329 feet, plus or minus .00001, the tolerance is very important, a hair too long and it won't reflect properly, too short and it will act as a director and totally reverse the pattern.

"Blue Dawg" <thecowboyace@yahoo.com> wrote in message news:1120820642.403459.107860@g49g2000cwa.googlegroups.com...
>I am running a President Grant am/usb/lsb and on Channel 1 the SWR is
> 1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It
> really isn't worth doing an adjustment on this antenna setup is there?
> The antenna is a single Yagi beam made up of two Tram Penetrators
> (Monkey Made's). I think that it is sold as a 1/2 wave antenna and
> have heard that it is a 5/8 wave. This antenna can be set for 10 meter
> usage also. It really looks weird up there without a reflector on it.
> I may put a reflector on it but am stumped as to length of the
> reflector (ging to be made of 1/2" electrical conduit). I can't find
> the formula for the length taking into consideration of the diameter of
> the reflector. I believe that the 'stand-by' one should use 468/f.
> Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
> the length of the driven element is less than 12' because of the
> antennas having the centerload coil in them.
>
> What do you think?
>

2468. Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 12:56:25 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <dalt5n$8da$1@mailhub227.itcs.purdue.edu>
Source record: 73634

I live in Indiana and am in the process of ground mounting a Butternut HF6V vertical antenna. The antennal is located in a section of lawn which is 40 feet from the nearest building. I am sure a set of guys would make a more sturdy antenna, but I don't want to cause lawn mowing problems, and I don't want to increase the visual impact of this antenna. Any comments or advice is welcome.

John, N9JG

2469. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 13:01:20 UTC
From: "Dave \"Doc\" Corio" <dcorio@adelphia.net>
Message-ID: <K42dndq2fveH5FPfRVn-sA@adelphia.com>
Source record: 73635

John Gotwals wrote:
> I live in Indiana and am in the process of ground mounting a Butternut HF6V
> vertical antenna. The antennal is located in a section of lawn which is 40
> feet from the nearest building. I am sure a set of guys would make a more
> sturdy antenna, but I don't want to cause lawn mowing problems, and I don't
> want to increase the visual impact of this antenna. Any comments or advice
> is welcome.
>
> John, N9JG
>
>
My HF9V has withstood Iowa and PA winds, both ground-mounted and
elevated without a single problem. The antenna can be guyed, however, if
you feel it necessary. The directions show the placement of guys on the
mast. It's important to get the proper placement so winds don't do any
damage if it's guyed too high or too low.

If you don't have the instructions, you can download them at

http://www.bencher.com/

73 & gl
Dave
N0HNJ

2470. Re: SWR losses in 300 ohm TV twinlead vs coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 13:21:57 UTC
From: Buck <iam@this.site>
Message-ID: <7evsc11vjhq79rk80dekf3eru6jiep3er3@4ax.com>
Source record: 73636

On Thu, 07 Jul 2005 22:18:12 -0400, Buck <iam@this.site> wrote:

>I have installed a 135 foot dipole which I tune for all bands but 6
>and 20 (I have dipoles cut for those bands.)
>
>Well, one of the locals and I were discussing a loop antenna. He
>insists that the loop is better fed with 65 feet of 75 ohm coax and
>then 50 ohm coax to the tuner for the radio. I was saying there would
>be less loss by using a 300 ohm twin lead since it was being tuned for
>all the HF bands and 6 meters, with open wire or ladder line being
>better options. He insists that if the loop is properly made, it is
>better to feed it with the 75/50 combo which properly matches the
>antenna.
>
>any thoughts?

PS. The loop we were discussing was cut for 80 meters and was to be
used with a tuner to tune all HF bands.

--
73 for now
Buck
N4PGW

2471. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 13:24:14 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <dalupr$9ca$1@mailhub227.itcs.purdue.edu>
Source record: 73637

Thanks for your comments. I purchased a new HF6V, and the instructions do
mention keeping the angle about 45�. I plan to install it without guys, but
I wanted to see if someone had some strong advice to the contrary.

"Dave "Doc" Corio" <dcorio@adelphia.net> wrote in message
news:K42dndq2fveH5FPfRVn-sA@adelphia.com...
> My HF9V has withstood Iowa and PA winds, both ground-mounted and elevated
> without a single problem. The antenna can be guyed, however, if you feel
> it necessary. The directions show the placement of guys on the mast. It's
> important to get the proper placement so winds don't do any damage if it's
> guyed too high or too low.

2472. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 13:25:23 UTC
From: Peter Voelpel <df3kv@t-online.de>
Message-ID: <dalus2$r6a$00$1@news.t-online.com>
Source record: 73639
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Out2Lunch wrote:

> Anyone who would fault your tower installation has a serious case of
> "penis envy". It looks great and I will bet it will stand the test of
> time.

never

2473. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 13:27:34 UTC
From: Buck <iam@this.site>
Message-ID: <eivsc11nakuj4bfcc2a2th2ehf9pnrdca1@4ax.com>
Source record: 73638

On 8 Jul 2005 04:04:02 -0700, "Blue Dawg" <thecowboyace@yahoo.com>
wrote:

>I am running a President Grant am/usb/lsb and on Channel 1 the SWR is
>1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It
>really isn't worth doing an adjustment on this antenna setup is there?
>The antenna is a single Yagi beam made up of two Tram Penetrators
>(Monkey Made's). I think that it is sold as a 1/2 wave antenna and
>have heard that it is a 5/8 wave. This antenna can be set for 10 meter
>usage also. It really looks weird up there without a reflector on it.
>I may put a reflector on it but am stumped as to length of the
>reflector (ging to be made of 1/2" electrical conduit). I can't find
>the formula for the length taking into consideration of the diameter of
>the reflector. I believe that the 'stand-by' one should use 468/f.
>Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
>the length of the driven element is less than 12' because of the
>antennas having the centerload coil in them.
>
>What do you think?

Ignore Dave's sarcastic statement. The antenna will work very well as
is. It could be trimmed to be a little better, but you and your radio
will not notice any difference.

If it were my antenna, I would leave it up and take the time either
enjoying the radio or studying for an Amateur Radio Licenses. :)

(Had to put a plug in there.)

73 and good luck

--
73 for now
Buck
N4PGW

2474. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 14:49:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dam3pjpbb1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73641

Walt, my suspicion about approximation, based only on appearance, was
not justified.

So your "two SWR meter" formula and my program agree exactly.
Therefore your formula must be correct. ;o)

Thanks for your trouble to sort things out for me.

Reg, G4FGQ

2475. Recommended Books

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 14:53:43 UTC
From: Jayson Davis <eclecticboxers@yahoo.com>
Message-ID: <Xowze.1941$yL4.1044@fe02.lga>
Source record: 73640

I'm looking for some recommendations on books about antennas and antenna theory.

Any favorites you crusty old RF guys wanna share? Lots of math doesn't scare me.

Thanks.

2476. Re: Recommended Books

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 15:25:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2b9ac$42ceaaf3$97d55c31$9904@ALLTEL.NET>
Source record: 73644

John D. Kraus "Antennas", Frederic E Terman's "Radio Engineers' Handbook"
and Walter Maxwell's "Reflections" are a necessary part of ones library.

"Jayson Davis" <eclecticboxers@yahoo.com> wrote in message
news:Xowze.1941$yL4.1044@fe02.lga...
> I'm looking for some recommendations on books about antennas and antenna
> theory.
>
> Any favorites you crusty old RF guys wanna share? Lots of math doesn't
> scare me.
>
> Thanks.

2477. Re: Recommended Books

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 15:32:07 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11ct71160lhbl70@corp.supernews.com>
Source record: 73642

"Jayson Davis" <eclecticboxers@yahoo.com> wrote in message
news:Xowze.1941$yL4.1044@fe02.lga...
> I'm looking for some recommendations on books about antennas and antenna
> theory.

"Antennas" by Kraus & Marhefka:
http://www.amazon.com/exec/obidos/tg/detail/-/0072321032/qid=1120836458/sr=8-1/ref=pd_bbs_ur_1/103-0117018-4818221?v=glance&s=books&n=507846

It may well be the last edition given that Dr. Kraus died last year.

The usual "classics" also include Balanis's "Antenna Theory: Analysis and Design" and Stutzman & Thiele's, "Antenna Theory and Design." IMO, Kraus is a better place to start in that the math is somewhat simpler and Kraus was a very "applied" sort of guy.

---Joel Kolstad

2478. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 15:51:34 UTC
From: richardharrison@webtv.net
Message-ID: <11530-42CEA106-371@storefull-3256.bay.webtv.net>
Source record: 73643

Blue Dawg wrote:
"What do you think?"

I gather Blue Dawg has a 1/2-wave dipole made from (2) 1/4-wave coil-loaded whips. That works. The coils are necessary because the whips are too short without them.

At 27.185 MHz, WL=11.035 meters=36.20 ft.

Kraus proposes a "modern version" of the Yagi-Uda antenna on page 258 of his 2002, 3rd edition of "Antennas".

The reflector is spaced 1/4-WL behind the radiator. It could be closer for more gain but this would make dimensions of the array more critical, and the improvement in pattern is probably not worth it.

The reflector is 1.03 x the radiator length to get the required inductive phase lag required of a reflector.

Length of the reflector is 0.475 WL. Length of the radiator is 0.46 WL. Lengths of elements shrink as they get fatter and Kraus assumes thin wires. They are also shorter with loading coils. Bandwidth improves with fat elements and worsens with loading coils. The elements are shorter than 1/2-WL due to "end effects".

The length of a thin non-loaded radiator for 11.35-mtr operation is 5.22 m = 17.13 ft.

The length of a thin non-loaded reflector for 11.35-mtr operation is 5.39 m = 17.7 ft.

Should you trim the antenna to optimize it? Probably not unless performance is at least 1 dB less than expected.

Best regards, Richard Harrison, KB5WZI

2479. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 16:40:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7hatc15ee987knmhe5ohp0muvqi7sg796a@4ax.com>
Source record: 73645

On 8 Jul 2005 04:04:02 -0700, "Blue Dawg" <thecowboyace@yahoo.com>
wrote:

> It really looks weird up there without a reflector on it.
>I may put a reflector on it but am stumped as to length of the
>reflector (ging to be made of 1/2" electrical conduit).

Hi OM,

It's going to look quite odd with that conduit (no physical strength
to speak of) drooping in the wind. And it would look odd if it didn't
droop, being so much bigger:

> I can't find
>the formula for the length taking into consideration of the diameter of
>the reflector. I believe that the 'stand-by' one should use 468/f.

Well ï¿½

The formula neither takes into effect the larger diameter of your
"wire" reflector, nor its reflector size (which would be approx 5%
larger than you might expect).

>Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
>the length of the driven element is less than 12' because of the
>antennas having the centerload coil in them.

And your point is?

If you want an expected outcome, you do what you have to do and get on
with it. In your case, if you are seeking elegance you would then buy
two more units, clamp them base-to-base, put them about a 20th wave
behind the first two, and tune the reflector (make it bigger) by that
same roughly 5%.

If you haven't already noticed all the loose terms (about,
roughly,...) then you may think that was the end of it. But no,
there's more! How much more depends on how deep you research these
size and distance correlations, or simply take someone's word for it
and build an aircooled dummy load.

73's
Richard Clark, KB7QHC

2480. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 16:46:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o9btc15b3msdb90gvn068ifd4056hnv830@4ax.com>
Source record: 73646

On Fri, 08 Jul 2005 09:40:29 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

> if you are seeking elegance you would then buy
>two more units, clamp them base-to-base, put them about a 20th wave
>behind the first two, and tune the reflector (make it bigger) by that
>same roughly 5%.

Hi OM,

If you may notice the disparity between my post in this particular and
KB5WZI, Richard Harrison's (which is far better researched) then you
may note also his warning for element diameter (your conduit is not
"thin" by any stretch of the imagination to suit precision and text
book formulas).

73's
Richard Clark, KB7QHC

2481. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 17:05:44 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <MY2dnSa0csPyL1PfRVn-rQ@comcast.com>
Source record: 73647
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Your profanity speaks more about you than your comments on the radio tower.

Think about it!!

Zoran Brlecic wrote:

> Fred W4JLE wrote:
>
>> And your liberal use of profanity accomplishes the exact same thing.
>> Can you
>> not express yourself without sounding like you belong on Ch 19?
>
>
> Nice logic, albeit not much surprising in these "morality" driven times:
> "liberal use of profanity" is of the same impact and scope as erecting
> an unsafe tower.
>
> However, let me rewrite my profanities for all of you who subscribe to
> the notion that eradicating a few words will solve all the world's
> problems:
>
> Don't be fucking stupid. ==> Don't be having sexual relations not so smart.
>
> if I kick a grizzly bear in the balls ==> if I kick a grizzly bear in
> the testicles
>
> average dumbass ==> average dumb behind
>
>
> I hope no one suffered any extensive trauma from reading my profanities.
>
> 73 ... WA7AA

2482. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 17:09:42 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <iPidnb1zW87rLlPfRVn-sQ@comcast.com>
Source record: 73648

Forget the wierd remarks from the ignorant!

The VSWR is fine, assuming your measurements are reasonably accurate.

I would NOT add a reflector.

Blue Dawg wrote:

> I am running a President Grant am/usb/lsb and on Channel 1 the SWR is
> 1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It
> really isn't worth doing an adjustment on this antenna setup is there?
> The antenna is a single Yagi beam made up of two Tram Penetrators
> (Monkey Made's). I think that it is sold as a 1/2 wave antenna and
> have heard that it is a 5/8 wave. This antenna can be set for 10 meter
> usage also. It really looks weird up there without a reflector on it.
> I may put a reflector on it but am stumped as to length of the
> reflector (ging to be made of 1/2" electrical conduit). I can't find
> the formula for the length taking into consideration of the diameter of
> the reflector. I believe that the 'stand-by' one should use 468/f.
> Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
> the length of the driven element is less than 12' because of the
> antennas having the centerload coil in them.
>
> What do you think?
>

2483. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 18:07:40 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <damfdc$lg0$3@f04n12.cac.psu.edu>
Source record: 73649

John Gotwals wrote:

> Thanks for your comments. I purchased a new HF6V, and the instructions do
> mention keeping the angle about 45ï¿½. I plan to install it without guys, but
> I wanted to see if someone had some strong advice to the contrary.
>
> "Dave "Doc" Corio" <dcorio@adelphia.net> wrote in message
> news:K42dndq2fveH5FPfRVn-sA@adelphia.com...
>
>>My HF9V has withstood Iowa and PA winds, both ground-mounted and elevated
>>without a single problem. The antenna can be guyed, however, if you feel
>>it necessary. The directions show the placement of guys on the mast. It's
>>important to get the proper placement so winds don't do any damage if it's
>>guyed too high or too low.

I'll chime in that my HF6V is also doing fine without guys.

- Mike KB3EIA -

2484. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 21:11:36 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <9b946$42ceec0d$97d55c31$14100@ALLTEL.NET>
Source record: 73650

Why do you have to be such a putz? The man asked a question and you wanting
to feel superior to somebody, feel you have a patsy in a CBer.

More's the pity!

"Dave" <noone@nowhere.com> wrote in message
news:UcGdnZ7K9sES-lPfRVn-sA@crocker.com...
> yes, keep trimming until the swr is 1:1.0001 or less across all the
> channels. anything higher than that will absolutely fry your transmitter
> and cause you to go sterile because of all the reflected power leaking out
> of your rig. electrical conduit is such a great conductor that it will
help
> the swr also by sucking all the power that would have been reflected back
> out of the coax, i would recommend 17.22329 feet, plus or minus .00001,
the
> tolerance is very important, a hair too long and it won't reflect
properly,
> too short and it will act as a director and totally reverse the pattern.
>
> "Blue Dawg" <thecowboyace@yahoo.com> wrote in message
> news:1120820642.403459.107860@g49g2000cwa.googlegroups.com...
> >I am running a President Grant am/usb/lsb and on Channel 1 the SWR is
> > 1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It
> > really isn't worth doing an adjustment on this antenna setup is there?
> > The antenna is a single Yagi beam made up of two Tram Penetrators
> > (Monkey Made's). I think that it is sold as a 1/2 wave antenna and
> > have heard that it is a 5/8 wave. This antenna can be set for 10 meter
> > usage also. It really looks weird up there without a reflector on it.
> > I may put a reflector on it but am stumped as to length of the
> > reflector (ging to be made of 1/2" electrical conduit). I can't find
> > the formula for the length taking into consideration of the diameter of
> > the reflector. I believe that the 'stand-by' one should use 468/f.
> > Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
> > the length of the driven element is less than 12' because of the
> > antennas having the centerload coil in them.
> >
> > What do you think?
> >
>
>

2485. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 21:37:47 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11ctshgr6uonh97@corp.supernews.com>
Source record: 73651
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Walt Davidson wrote:

> On 8 Jul 2005 00:02:57 -0700, nm5k@wt.net wrote:
>
>
>>That tower is quite capable of thinking
>>it's a tree. It might not be green and have pretty leaves, but it will
>>still kill you deader than a squashed june bug.
>
>
> So it's true, then. Every cloud has a silver lining!
>
> 73 de G3NYY
>
Having read this thread from the beginning I feel compelled to comment myself at this time.

A couple of weeks ago the area I live in was subjected to some high winds. How high I don't know but my neighbor across the street had to pick a very large tree out if his attic. How large you ask? Glad you asked. I measured the circumfrence at a point that would have been about 5 ft above ground. It measured 87 inches. Now that's one large tree. What happened? The roots snapped off at ground level. So do not trust a living thing to hold anything.

Dave WD0BDZ

2486. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 21:49:32 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11ctt7ic48ml733@corp.supernews.com>
Source record: 73652

Reg Edwards wrote:

> "Fred W4JLE" wrote -
>
>>Reg, our thoughts and prayers go out to your countrymen after the
>
> cowardly
>
>>attacks on your transportition system.
>
>
> ----------
>
> Fred, your sincere sentiments are very much appreciated. But we also
> have in mind the 100's of thousands of Iraqis who have died under
> attack during the last dozen years.
> ----
> Yours, Reg.
>
>

Where are these Hundreds of Thousands coming from? The defeat of the Iraqi Army during Desert Storm. That was a conflict started by the Iraqi President. The US President lead the army that defeated him. The majority of the casualties suffered during the current action have been the result a deliberate campaign by those opposed to the Iraqi people guiding their own destiny. To say otherwise is to devalue the lives lost in this action. I look foreword to the day that all non Iraqi military personnel can go home in peace and with honor.

Dave N

2487. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-08 22:08:17 UTC
From: Owen <owen@no.where>
Message-ID: <fprtc119eucfn8p7evsaio4096hihfshdu@4ax.com>
Source record: 73653

On Wed, 6 Jul 2005 21:23:52 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>> If you like, I am saying your approach is valid for lossless lines, it
>> is also valid for all distortionless lines, but I think it is not
>> accurate for lines in the general case because it isn't correct if
>> Xo!=0.
>>
>> Owen
>
>Owen, if X = 0 there is no attenuation, but you're saying my material is
>invalid if X is not 0? I'm sorry, but I'm confused.

Walt, it has just occurred to me that I am using the "actual" Zo, not
the nominal Zo, and I think your rho calc is based on the nominal Zo,
as it will be measured with an instrument presumably calibrated for
nominal Zo.

I have compared the loss calculated by your method (with rho based on
nominal Zo, Zo=Ro+j0) and my method and they are very similar (though
not the same). I have added a function to calculate the loss using
your formula based on nominal Zo and plotted it, along with the
difference to the power based loss calc. They are at
http://www.vk1od.net/temp/reflection.htm .

If your method is based on nominal Zo, rather than the actual Zo, it
is likely to be an approximation, though on this example, it is pretty
close and probably is quite adequate for most practical lines at HF
and above. (The error increases as frequency is reduced (Zo departs
more from nominal Zo).)

Having resolved the apparent inconsistency... I am still in search of
a derivation of the Michaels formula.

Owen
--

2488. Re: Recommended Books

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 00:25:40 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <ZaadnYq4R7wehFLfRVn-jg@adelphia.com>
Source record: 73654

More to an antenna that building one. Get Wireman IV too.... Help to determine wire, connector, etc....

http://thewireman.com/wirebook.html

--

Bill
KI4HPZ

"Joel Kolstad" <JKolstad71HatesSpam@yahoo.com> wrote in message
news:11ct71160lhbl70@corp.supernews.com...
"Jayson Davis" <eclecticboxers@yahoo.com> wrote in message
news:Xowze.1941$yL4.1044@fe02.lga...
> I'm looking for some recommendations on books about antennas and antenna
> theory.

"Antennas" by Kraus & Marhefka:
http://www.amazon.com/exec/obidos/tg/detail/-/0072321032/qid=1120836458/sr=8-1/ref=pd_bbs_ur_1/103-0117018-4818221?v=glance&s=books&n=507846

It may well be the last edition given that Dr. Kraus died last year.

The usual "classics" also include Balanis's "Antenna Theory: Analysis and Design" and Stutzman & Thiele's, "Antenna Theory and Design." IMO, Kraus is a better place to start in that the math is somewhat simpler and Kraus was a very "applied" sort of guy.

---Joel Kolstad

2489. Re: SWR losses in 300 ohm TV twinlead vs coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 01:42:00 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ev-dnXT5zoL9tlLfRVn-3w@comcast.com>
Source record: 73655

"Buck" <iam@this.site> wrote in message
news:7evsc11vjhq79rk80dekf3eru6jiep3er3@4ax.com...
> On Thu, 07 Jul 2005 22:18:12 -0400, Buck <iam@this.site> wrote:
>
>>I have installed a 135 foot dipole which I tune for all bands but 6
>>and 20 (I have dipoles cut for those bands.)
>>
>>Well, one of the locals and I were discussing a loop antenna. He
>>insists that the loop is better fed with 65 feet of 75 ohm coax and
>>then 50 ohm coax to the tuner for the radio. I was saying there would
>>be less loss by using a 300 ohm twin lead since it was being tuned for
>>all the HF bands and 6 meters, with open wire or ladder line being
>>better options. He insists that if the loop is properly made, it is
>>better to feed it with the 75/50 combo which properly matches the
>>antenna.
>>
>>any thoughts?
>
> PS. The loop we were discussing was cut for 80 meters and was to be
> used with a tuner to tune all HF bands.
>
>
> --
> 73 for now
> Buck
> N4PGW

I have no problem loading up (Linear, with Pi network) my 75 m loop on 18
MHz, but performance wise it is a dog. Much inferior to the 18 MHz dipole,
which is not as high as the top of the loop. You might want to run EZNEC on
this. Received signal strtength on other bands is WAY down.. Works fine on
75DX, not so hot for locals.
Tam/WB2TT

2490. 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 02:17:43 UTC
From: "Michael St. Angelo" <mstangelo@comcast.net>
Message-ID: <GPudnSRA6NEjrlLfRVn-iQ@comcast.com>
Source record: 73656

QST had an article about a 20 meter halfwave vertical that was end fed with
a coaxial matching section for 50 ohm feed.
It was essentially a j-pole constructed from coax. It was in a 1980-early
1990 issue of QST. Does anyone recall the article
and the issue?

Thanks,

Mike N2MS

2491. Re: Recommended Books

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 02:46:03 UTC
From: richardharrison@webtv.net
Message-ID: <18468-42CF3A6B-526@storefull-3253.bay.webtv.net>
Source record: 73657

Joel Kolstad wrote:
" "Antennas" by Kraus & Marthelka:"

I agree. Also Terman`s "Radio and Electronic Engineering", and the "ARRL Antenna Book".

Other great books are out there but the 3 above cover most of what you will ever need.

Best regards, Richard Harrison, KB5WZI

2492. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 03:12:28 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <NuKdnYWEdKAD3VLfRVn-3A@comcast.com>
Source record: 73658
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Ham op wrote:

> Your profanity speaks more about you than your comments on the radio tower.

It speaks to the people who, to cite just one recent example, go berserk
and express outrage over a half a breast on national TV, yet fall
strangely silent when their government invades a sovereign country using
false premises and manufactured evidence, or attempts to legalize torture.

Do you really think I care what the Taliban of any religious persuasion
think about me?

2493. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 04:09:08 UTC
From: Ron <ron@nowisconsin.com>
Message-ID: <bniuc19efv8crftgcahhhk4tc88phf1b3d@4ax.com>
Source record: 73659

I have do not have guys on the HF6V I own and have had no problems at all. WE had sustanied winds of almost 60mph this winter and no problem at all.

Do take the time though if you have not already and add a few radials. Cut you lawn real short,, lay down several radials, pull them taught and then stake them in the ground with ground cloth staples (garden center) The grass will grow right up aroound them and they will "disapear" into the ground. Huge difference in performance.

Ron
On Fri, 8 Jul 2005 07:56:25 -0500, "John Gotwals" <john@gotwals.xremovey.com> wrote:

>I live in Indiana and am in the process of ground mounting a Butternut HF6V
>vertical antenna. The antennal is located in a section of lawn which is 40
>feet from the nearest building. I am sure a set of guys would make a more
>sturdy antenna, but I don't want to cause lawn mowing problems, and I don't
>want to increase the visual impact of this antenna. Any comments or advice
>is welcome.
>
>John, N9JG
>

2494. The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 05:03:44 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42cf5a7c$1_2@x-privat.org>
Source record: 73660
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Actually, just did a quick webbing and found enough to
realise that the claims are founded upon feet of clay.....

1. You do not separately excite the E and H fields because
if you excite an E field, you get a corresponding H field, and vice-versa,
even if it is your intention to excite separately.

2. The differential forms of Maxwell describe the fields at _EVERY_
infinitesimal point and there is no way that the attempt to excite two
separate fields from two separate mechanical contrivances will result
in registration at every single point. Indeed, it is doubtful that
registration
will be achieved at all at any infinitesimal point. In any case, as in (1)
above,
your E field will have its H, and your H field will have its E field
already.

3. In the accepted equations describing the generated field, radiation comes
only
from accelerating charges. Thus the capacitive elements of the CFA will
create the near field (decaying as 1/(r^2)) but not any radiated field
(decaying as 1/r). I wonder if the measurements resulting in the claims
for the CFA were made in the near field?

I wonder if the whole thing is intended as an elaborate hoax, and that the
authors, in their original paper in Wireless World, relied on the fact that
most readers' eyes would glaze over when faced with the maths of vector
fields? (Remember, that in this NG we've had someone who boasts of
two degrees, one in maths and the other in electronics, stating that
e^(-jwt)
is a function that decreases with increasing time, thus indicating that the
awarding of a degree together with the professing of mathematical
equations is no guarantee of competence!)

I suggest http://farside.ph.utexas.edu/teaching/em1/lectures/node53.html etc
as a good revising/learning/debunking cookbook. (Don't start from node 53!)

"Polymath" <invalid@invalid.invalid> wrote in message
news:42cf4d37_3@x-privat.org...
> I've just about got enough elec-and-mag theory to be
> able to understand the claims made for the GM3HAT
> CFA; any pointers to the patent claims?
>
>

2495. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 06:32:12 UTC
From: nm5k@wt.net
Message-ID: <1120890732.472040.237420@g47g2000cwa.googlegroups.com>
Source record: 73661
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

I've seen just a dropped gin pole alone almost go through the
roof of a house. It left a hole. A light aluminum tower might
be stopped by a house, but I wouldn't want to take my chances
with a heavy steel tower. He might get lucky and have it last a
few years. But one bad storm, and it could be a problem.
Nearly worse is a tower that crumpled over midway due to snapped
guys, and then you have the fun of trying to get the mess back
on the ground without killing someone. MK

2496. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 07:13:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11cuu8bhpl6bc33@corp.supernews.com>
Source record: 73662

Sounds like "The Half-Wave Vertical" by John Belrose, VE2CV in September
1981 _Ham Radio_. It's a sleeve dipole, like the antenna I've heard
called a "bazooka" when used at VHF. That used to be a common type of
VHF/UHF antenna although I don't see many around these days.

Roy Lewallen, W7EL

Michael St. Angelo wrote:
> QST had an article about a 20 meter halfwave vertical that was end fed with
> a coaxial matching section for 50 ohm feed.
> It was essentially a j-pole constructed from coax. It was in a 1980-early
> 1990 issue of QST. Does anyone recall the article
> and the issue?
>
> Thanks,
>
> Mike N2MS
>
>

2497. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 08:00:30 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <orvuc1hfe44pagbts9h4lpau71ngf5lvn8@4ax.com>
Source record: 73663
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Polly parroted:

>1. You do not separately excite the E and H fields because
>if you excite an E field, you get a corresponding H field, and vice-versa,
>even if it is your intention to excite separately.
>
>2. The differential forms of Maxwell describe the fields at _EVERY_
>infinitesimal point and there is no way that the attempt to excite two
>separate fields from two separate mechanical contrivances will result
>in registration at every single point. Indeed, it is doubtful that
>registration
>will be achieved at all at any infinitesimal point. In any case, as in (1)
>above,
>your E field will have its H, and your H field will have its E field
>already.

Your first point does in fact point to the anomaly regarding points in
your second point, and you have therefore pointed up the answer to
your own point. As you clearly have not thought this point through, I
pointedly leave its discovery as an exercise for you. While you
continue to struggle for technical excellence, doing this should help
point you to the requirements demanded of scientific thinking, and the
possibility of also taking your first tentative steps in that
discipline. Further, as a guide, scientists do not use personal
pronouns in their formal writings, so you might also like to rewrite
your article in such a manner.

from
Aero Spike

2498. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 09:45:36 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <41Nze.24204$y86.5670@newsfe1-win.ntli.net>
Source record: 73664
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Spike wrote:
> Polly parroted:
>
>
>>1. You do not separately excite the E and H fields because
>>if you excite an E field, you get a corresponding H field, and vice-versa,
>>even if it is your intention to excite separately.
>>
>>2. The differential forms of Maxwell describe the fields at _EVERY_
>>infinitesimal point and there is no way that the attempt to excite two
>>separate fields from two separate mechanical contrivances will result
>>in registration at every single point. Indeed, it is doubtful that
>>registration
>>will be achieved at all at any infinitesimal point. In any case, as in (1)
>>above,
>>your E field will have its H, and your H field will have its E field
>>already.
>
>
> Your first point does in fact point to the anomaly regarding points in
> your second point, and you have therefore pointed up the answer to
> your own point. As you clearly have not thought this point through, I
> pointedly leave its discovery as an exercise for you. While you
> continue to struggle for technical excellence, doing this should help
> point you to the requirements demanded of scientific thinking, and the
> possibility of also taking your first tentative steps in that
> discipline. Further, as a guide, scientists do not use personal
> pronouns in their formal writings, so you might also like to rewrite
> your article in such a manner.
>
> from
> Aero Spike
and what would be the point of that?
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

2499. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 11:45:11 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <44evc1h509t31vjkv1spn4s24u81lhm426@4ax.com>
Source record: 73665
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank Turner-Smith G3VKI wrote:

>and what would be the point of that?

It's a triumph of hope over experience, given this chap's posting history - I'm sure you get the point ;-)

from
Aero Spike

2500. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 12:18:07 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <daof9s$g51$1@mailhub227.itcs.purdue.edu>
Source record: 73666

I do plan to add a fair number of guys, and will be installing them just as you have suggested. I do have a question about driving the 1 1/8" mounting tube into the earth. The directions give a warning about splitting the plastic insert and suggest placing a piece of wood on top of the tube and then hammer on the wood. The soil here is clay, and the ground is quite dry, at the present time. Do you, or anyone else, have any suggestions about driving the tube into the ground. Should I drive a wooden stake first to form a hole, remove the stake, and then drive the tube into the hole left by the stake?

"Ron" <ron@nowisconsin.com> wrote in message
news:bniuc19efv8crftgcahhhk4tc88phf1b3d@4ax.com...
>I have do not have guys on the HF6V I own and have had no problems at
> all. WE had sustanied winds of almost 60mph this winter and no
> problem at all.
>
> Do take the time though if you have not already and add a few radials.
> Cut you lawn real short,, lay down several radials, pull them taught
> and then stake them in the ground with ground cloth staples (garden
> center) The grass will grow right up aroound them and they will
> "disapear" into the ground. Huge difference in performance.
>

2501. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 15:10:28 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <71qvc1do4o09j12tk62nvbhk1md9c35fqa@4ax.com>
Source record: 73667

On Sat, 9 Jul 2005 07:18:07 -0500, "John Gotwals"
<john@gotwals.xremovey.com> wrote:

>I do plan to add a fair number of guys, and will be installing them just as
>you have suggested. I do have a question about driving the 1 1/8" mounting
>tube into the earth. The directions give a warning about splitting the
>plastic insert and suggest placing a piece of wood on top of the tube and
>then hammer on the wood. The soil here is clay, and the ground is quite dry,
>at the present time. Do you, or anyone else, have any suggestions about
>driving the tube into the ground. Should I drive a wooden stake first to
>form a hole, remove the stake, and then drive the tube into the hole left by
>the stake?

I's suggest you take a few days and water the area first, you can use
a 'starter hole' approach also. Drive a stake in and withdraw then
over the course of a day fill that hole with water and allow it to
seep in then water again. You don't want to go too deep with your
'starter hole' though - just enough to hold some water.

2502. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 15:52:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <daorrkdve1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73668

> I suggest you take a few days and water the area first,

==========

This may be fine for some amateurs. But what about the people in
southern England where the present water shortage will cause the
goverment to introduce compulsory metering of domestic water supplies.
It's something to do with Earth warming, man-made climatic
disturbance, and the price of a glass of clean drinking water in
London.

Reg.

2503. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 16:35:33 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11cvv6q5gakap25@corp.supernews.com>
Source record: 73669

Reg Edwards wrote:
>>I suggest you take a few days and water the area first,
>
>
> ==========
>
> This may be fine for some amateurs. But what about the people in
> southern England where the present water shortage will cause the
> goverment to introduce compulsory metering of domestic water supplies.
> It's something to do with Earth warming, man-made climatic
> disturbance, and the price of a glass of clean drinking water in
> London.
> ----
> Reg.
>
>
Use GRAY water. That's the water from the sink, bath tub etc. This will
ease the load on the waste water treatment plant and allow you to soak
the ground at the same time. A little more work but it can be worth it.

Dave WD9BDZ

2504. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 17:56:07 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <87ef2$42d00fbe$97d55c31$2803@ALLTEL.NET>
Source record: 73670
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

So now the actions of the government are responsible for your profanity? Get a life!

You are a foul mouthed person with limited ability to express yourself with out profanity, that failing, you resort to hyperbole and rants against the government.

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message news:NuKdnYWEdKAD3VLfRVn-3A@comcast.com...
> Ham op wrote:
>
> > Your profanity speaks more about you than your comments on the radio tower.
>
> It speaks to the people who, to cite just one recent example, go berserk
> and express outrage over a half a breast on national TV, yet fall
> strangely silent when their government invades a sovereign country using
> false premises and manufactured evidence, or attempts to legalize torture.
>
> Do you really think I care what the Taliban of any religious persuasion
> think about me?

2505. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 17:59:18 UTC
From: Eskay <siebklaasNO@SPAMhotmail.com>
Message-ID: <e9ym7gf9gvh4$.4eyrxyzssjje$.dlg@40tude.net>
Source record: 73671

On Fri, 8 Jul 2005 22:17:43 -0400, Michael St. Angelo wrote:

> QST had an article about a 20 meter halfwave vertical that was end fed with
> a coaxial matching section for 50 ohm feed.
> It was essentially a j-pole constructed from coax. It was in a 1980-early
> 1990 issue of QST. Does anyone recall the article
> and the issue?
>
> Thanks,
>
> Mike N2MS

You have mail.

2506. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 18:01:45 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <YiUze.1442$5R1.1156@fe07.lga>
Source record: 73672

"Me" <Me@shadow.orgs> wrote in message
news:Me-69639F.15593107072005@netnews.worldnet.att.net...
> In article <Ukaze.722$yL4.95@fe02.lga>,
> "Walter Maxwell" <walt@w2du.com> wrote:
>
> > Who is 'Me'? I used to drive one 'a them things too, before and during
WW2.
> >
> > Walt, w2du
>
> "Me" is an alias for a well know Radioman/FCC Field Agent, who is
> nearing the end of his natural life, but finds time to kabitz here in
> NewsGroups....
>
> but, yours didn't have Phased Verticals, with electronic steering, and
> a Right/Left meter just above the steering wheel to guide you in on the
> signal....
>
> Me

You're right, mine was a Hudson with a loop DF and Hallicrafters SX-27 and SX-28 receivers. There had to be a somewhat intelligent brain connecting the DF to the steering wheel. Did you drive your car during the time the NDO and RID existed? I was a charter member beginning in 1940. My wife-to-be disseminated more than 500 invitations to join from her FCC office in Washington as an assistant to George E. Sterling, then Chief Engineer of the FCC.

If well-known Radioman/FCC Agent is so well known how come I don't know him? I can't believe you're gonna give away any Home Security secrets by tossing your anonomity cloak. How about coming clean with us?

Walt, W2DU

2507. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 18:23:06 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <dap4m7psc1@mailhub227.itcs.purdue.edu>
Source record: 73673

Why would anyone save water if their water supply was not metered?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:daorrkdve1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> This may be fine for some amateurs. But what about the people in
> southern England where the present water shortage will cause the
> goverment to introduce compulsory metering of domestic water supplies.
> It's something to do with Earth warming, man-made climatic
> disturbance, and the price of a glass of clean drinking water in
> London.

2508. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 18:58:45 UTC
From: radio913@aol.com
Message-ID: <1120935525.019426.17750@z14g2000cwz.googlegroups.com>
Source record: 73674

Blue Dawg wrote:
> I am running a President Grant am/usb/lsb and on Channel 1 the SWR is
> 1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It
> really isn't worth doing an adjustment on this antenna setup is there?
> The antenna is a single Yagi beam made up of two Tram Penetrators
> (Monkey Made's). I think that it is sold as a 1/2 wave antenna and
> have heard that it is a 5/8 wave. This antenna can be set for 10 meter
> usage also. It really looks weird up there without a reflector on it.
> I may put a reflector on it but am stumped as to length of the
> reflector (ging to be made of 1/2" electrical conduit). I can't find
> the formula for the length taking into consideration of the diameter of
> the reflector. I believe that the 'stand-by' one should use 468/f.
> Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
> the length of the driven element is less than 12' because of the
> antennas having the centerload coil in them.
>
> What do you think?

If you worst measured swr is 1:1.45, then
don't sweat it.

You won't notice a difference between a 1:1.5
and a 1:1.1

Slick

2509. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 21:22:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <18dd6$42d0402a$97d55c31$9215@ALLTEL.NET>
Source record: 73575

He is Riley's mini-me...

"Walter Maxwell" <walt@w2du.com> wrote in message
news:YiUze.1442$5R1.1156@fe07.lga...
>
> "Me" <Me@shadow.orgs> wrote in message
> news:Me-69639F.15593107072005@netnews.worldnet.att.net...
> > In article <Ukaze.722$yL4.95@fe02.lga>,
> > "Walter Maxwell" <walt@w2du.com> wrote:
> >
> > > Who is 'Me'? I used to drive one 'a them things too, before and
during
> WW2.
> > >
> > > Walt, w2du
> >
> > "Me" is an alias for a well know Radioman/FCC Field Agent, who is
> > nearing the end of his natural life, but finds time to kabitz here in
> > NewsGroups....
> >
> > but, yours didn't have Phased Verticals, with electronic steering, and
> > a Right/Left meter just above the steering wheel to guide you in on the
> > signal....
> >
> > Me
>
> You're right, mine was a Hudson with a loop DF and Hallicrafters SX-27 and
> SX-28 receivers. There had to be a somewhat intelligent brain connecting
the
> DF to the steering wheel. Did you drive your car during the time the NDO
and
> RID existed? I was a charter member beginning in 1940. My wife-to-be
> disseminated more than 500 invitations to join from her FCC office in
> Washington as an assistant to George E. Sterling, then Chief Engineer of
the
> FCC.
>
> If well-known Radioman/FCC Agent is so well known how come I don't know
him?
> I can't believe you're gonna give away any Home Security secrets by
tossing
> your anonomity cloak. How about coming clean with us?
>
> Walt, W2DU

>
>

2510. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 22:17:25 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d0j6vrimnk05b@corp.supernews.com>
Source record: 73576

WWV uses half wave verticals that are center fed. Their web pages might
show the details. End feeding seems more difficult than center feeding.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Michael St. Angelo" <mstangelo@comcast.net> wrote in message
news:GPudnSRA6NEjrlLfRVn-iQ@comcast.com...
> QST had an article about a 20 meter halfwave vertical that was end fed
with
> a coaxial matching section for 50 ohm feed.
> It was essentially a j-pole constructed from coax. It was in a 1980-early
> 1990 issue of QST. Does anyone recall the article
> and the issue?
>
> Thanks,
>
> Mike N2MS
>
>

2511. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 22:48:31 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <PvYze.17875$x82.12391@fe03.lga>
Source record: 73577

Riley wouldn't hide behind 'me'.

Walt

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:18dd6$42d0402a$97d55c31$9215@ALLTEL.NET...
> He is Riley's mini-me...
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:YiUze.1442$5R1.1156@fe07.lga...
> >
> > "Me" <Me@shadow.orgs> wrote in message
> > news:Me-69639F.15593107072005@netnews.worldnet.att.net...
> > > In article <Ukaze.722$yL4.95@fe02.lga>,
> > > "Walter Maxwell" <walt@w2du.com> wrote:
> > >
> > > > Who is 'Me'? I used to drive one 'a them things too, before and
> during
> > WW2.
> > > >
> > > > Walt, w2du
> > >
> > > "Me" is an alias for a well know Radioman/FCC Field Agent, who is
> > > nearing the end of his natural life, but finds time to kabitz here in
> > > NewsGroups....
> > >
> > > but, yours didn't have Phased Verticals, with electronic steering, and
> > > a Right/Left meter just above the steering wheel to guide you in on
the
> > > signal....
> > >
> > > Me
> >
> > You're right, mine was a Hudson with a loop DF and Hallicrafters SX-27
and
> > SX-28 receivers. There had to be a somewhat intelligent brain connecting
> the
> > DF to the steering wheel. Did you drive your car during the time the NDO
> and
> > RID existed? I was a charter member beginning in 1940. My wife-to-be
> > disseminated more than 500 invitations to join from her FCC office in
> > Washington as an assistant to George E. Sterling, then Chief Engineer of
> the
> > FCC.
> >

> > If well-known Radioman/FCC Agent is so well known how come I don't know
> him?
> > I can't believe you're gonna give away any Home Security secrets by
> tossing
> > your anonomity cloak. How about coming clean with us?
> >
> > Walt, W2DU
> >
> >
>
>

2512. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 22:57:54 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <0amdne_7H6Ify03fRVn-iw@comcast.com>
Source record: 73578
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Zoran Brlecic wrote:
> Ham op wrote:
>
>> Your profanity speaks more about you than your comments on the radio
>> tower.
>
>
> It speaks to the people who, to cite just one recent example, go berserk
> and express outrage over a half a breast on national TV, yet fall
> strangely silent when their government invades a sovereign country using
> false premises and manufactured evidence, or attempts to legalize torture.
>
> Do you really think I care what the Taliban of any religious persuasion
> think about me?

I think you are arrogant enough for the whole ng.

Be careful though. Humility, when it comes, will come hard for you!

2513. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 23:21:11 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-25D3C3.15213709072005@netnews.worldnet.att.net>
Source record: 73579

In article <YiUze.1442$5R1.1156@fe07.lga>,
"Walter Maxwell" <walt@w2du.com> wrote:

> "Me" <Me@shadow.orgs> wrote in message
> news:Me-69639F.15593107072005@netnews.worldnet.att.net...
> > In article <Ukaze.722$yL4.95@fe02.lga>,
> > "Walter Maxwell" <walt@w2du.com> wrote:
> >
> > > Who is 'Me'? I used to drive one 'a them things too, before and during
> WW2.
> > >
> > > Walt, w2du
> >
> > "Me" is an alias for a well know Radioman/FCC Field Agent, who is
> > nearing the end of his natural life, but finds time to kabitz here in
> > NewsGroups....
> >
> > but, yours didn't have Phased Verticals, with electronic steering, and
> > a Right/Left meter just above the steering wheel to guide you in on the
> > signal....
> >
> > Me
>
> You're right, mine was a Hudson with a loop DF and Hallicrafters SX-27 and
> SX-28 receivers. There had to be a somewhat intelligent brain connecting the
> DF to the steering wheel. Did you drive your car during the time the NDO and
> RID existed? I was a charter member beginning in 1940. My wife-to-be
> disseminated more than 500 invitations to join from her FCC office in
> Washington as an assistant to George E. Sterling, then Chief Engineer of the
> FCC.
>
> If well-known Radioman/FCC Agent is so well known how come I don't know him?
> I can't believe you're gonna give away any Home Security secrets by tossing
> your anonomity cloak. How about coming clean with us?
>
> Walt, W2DU
>
>

You just don't know any of the Old Gang from the Left Coast, Region X,
and Alaska, that's all. and it was a Van, Creme and Brown, with local
State Plates, or a dark blue Stationwagon, dark tinted windows, with no
backseat and a pile of receivers. I once got myself in trouble by
calling it the SolsbyMobile..... Oh well, that was then.....and this is
now....

Me

2514. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-09 23:23:56 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-FA632B.15242209072005@netnews.worldnet.att.net>
Source record: 73580

In article <18dd6$42d0402a$97d55c31$9215@ALLTEL.NET>,
"Fred W4JLE" <w4jle@w4jle.com> wrote:

> He is Riley's mini-me...
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:YiUze.1442$5R1.1156@fe07.lga...
> >
> > "Me" <Me@shadow.orgs> wrote in message
> > news:Me-69639F.15593107072005@netnews.worldnet.att.net...
> > > In article <Ukaze.722$yL4.95@fe02.lga>,
> > > "Walter Maxwell" <walt@w2du.com> wrote:
> > >
> > > > Who is 'Me'? I used to drive one 'a them things too, before and
> during
> > WW2.
> > > >
> > > > Walt, w2du
> > >
> > > "Me" is an alias for a well know Radioman/FCC Field Agent, who is
> > > nearing the end of his natural life, but finds time to kabitz here in
> > > NewsGroups....
> > >
> > > but, yours didn't have Phased Verticals, with electronic steering, and
> > > a Right/Left meter just above the steering wheel to guide you in on the
> > > signal....
> > >
> > > Me
> >
> > You're right, mine was a Hudson with a loop DF and Hallicrafters SX-27 and
> > SX-28 receivers. There had to be a somewhat intelligent brain connecting
> the
> > DF to the steering wheel. Did you drive your car during the time the NDO
> and
> > RID existed? I was a charter member beginning in 1940. My wife-to-be
> > disseminated more than 500 invitations to join from her FCC office in
> > Washington as an assistant to George E. Sterling, then Chief Engineer of
> the
> > FCC.
> >
> > If well-known Radioman/FCC Agent is so well known how come I don't know
> him?
> > I can't believe you're gonna give away any Home Security secrets by
> tossing

> > your anonomity cloak. How about coming clean with us?
> >
> > Walt, W2DU
> >
> >
>
>

Riley is a nice enough attorney, but the real enforcement people all got riffed during the Clinton/Gore Bloodletting when the Good Field Operatins folks, all went elsewhere.....

Me

2515. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 00:14:45 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <e_qdnU82_IHk9U3fRVn-rA@comcast.com>
Source record: 73581

"Michael St. Angelo" <mstangelo@comcast.net> wrote in message
news:GPudnSRA6NEjrlLfRVn-iQ@comcast.com...
> QST had an article about a 20 meter halfwave vertical that was end fed
> with a coaxial matching section for 50 ohm feed.
> It was essentially a j-pole constructed from coax. It was in a 1980-early
> 1990 issue of QST. Does anyone recall the article
> and the issue?
>
> Thanks,
>
> Mike N2MS

Here is the NIST WWV web page that Mac, N8TT referenced !
http://tf.nist.gov/timefreq/stations/wwv.html
WWV Antennas

The WWV antennas are half-wave vertical antennas that radiate
omnidirectional patterns. There are actually 5 antennas at the station site,
one for each frequency. Each antenna is connected to a single transmitter
using a rigid coaxial line, and the site is designed so that no two coaxial
lines cross. Each antenna is mounted on a tower that is approximately one
half-wavelength tall. The tallest tower, for 2.5 MHz, is about 60 m tall.
The shortest tower, for 20 MHz, is about 7.5 m tall. The top half of each
antenna is a quarter-wavelength radiating element. The bottom half of each
antenna consists of 9 quarter-wavelength wires that connect to the center of
the tower and slope downwards to the ground at a 45 degree angle. This
sloping skirt functions as the lower half of the radiating system and also
guys the antenna.

====

Greg, w9gb

2516. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 00:37:04 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42d06db0$0$32200$39cecf19@news.twtelecom.net>
Source record: 73582

Reg Edwards wrote:
> "Fred W4JLE" wrote -
>
>>Reg, our thoughts and prayers go out to your countrymen after the
>
> cowardly
>
>>attacks on your transportition system.
>
>
> ----------
>
> Fred, your sincere sentiments are very much appreciated. But we also
> have in mind the 100's of thousands of Iraqis who have died under
> attack during the last dozen years.
> ----
> Yours, Reg.
>
>

Not to mention the millions killed in interesting and novel ways by the
Hesein family and their puppets.

tom
K0TAR

2517. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 01:43:21 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <S1%ze.38514$ho.20730@bignews6.bellsouth.net>
Source record: 73583

"If your car has more antennas on the roof than wheels on the ground, you
might be a redneck"!

(Guess I better add some more wheels! :))

Jerry

"Walter Maxwell" <walt@w2du.com> wrote in message
news:PvYze.17875$x82.12391@fe03.lga...
> Riley wouldn't hide behind 'me'.
>
> Walt
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:18dd6$42d0402a$97d55c31$9215@ALLTEL.NET...
>> He is Riley's mini-me...
>>
>> "Walter Maxwell" <walt@w2du.com> wrote in message
>> news:YiUze.1442$5R1.1156@fe07.lga...
>> >
>> > "Me" <Me@shadow.orgs> wrote in message
>> > news:Me-69639F.15593107072005@netnews.worldnet.att.net...
>> > > In article <Ukaze.722$yL4.95@fe02.lga>,
>> > > "Walter Maxwell" <walt@w2du.com> wrote:
>> > >
>> > > > Who is 'Me'? I used to drive one 'a them things too, before and
>> during
>> > WW2.
>> > > >
>> > > > Walt, w2du
>> > >
>> > > "Me" is an alias for a well know Radioman/FCC Field Agent, who is
>> > > nearing the end of his natural life, but finds time to kabitz here in
>> > > NewsGroups....
>> > >
>> > > but, yours didn't have Phased Verticals, with electronic steering,
>> > > and
>> > > a Right/Left meter just above the steering wheel to guide you in on
> the
>> > > signal....
>> > >
>> > > Me
>> >
>> > You're right, mine was a Hudson with a loop DF and Hallicrafters SX-27
> and

>> > SX-28 receivers. There had to be a somewhat intelligent brain
>> > connecting
>> the
>> > DF to the steering wheel. Did you drive your car during the time the
>> > NDO
>> and
>> > RID existed? I was a charter member beginning in 1940. My wife-to-be
>> > disseminated more than 500 invitations to join from her FCC office in
>> > Washington as an assistant to George E. Sterling, then Chief Engineer
>> > of
>> the
>> > FCC.
>> >
>> > If well-known Radioman/FCC Agent is so well known how come I don't know
>> him?
>> > I can't believe you're gonna give away any Home Security secrets by
>> tossing
>> > your anonomity cloak. How about coming clean with us?
>> >
>> > Walt, W2DU
>> >
>> >
>>
>>
>
>

2518. Re: New program. Two SWR meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 01:48:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42d07e5a$0$22200$39cecf19@news.twtelecom.net>
Source record: 73584

Tom Ring wrote:

> Not to mention the millions killed in interesting and novel ways by the
> Hesein family and their puppets.
>
> tom
> K0TAR

Sorry mispelled the murdering tyrant's name, should have been "Husein".

tom
K0TAR

2519. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 02:20:46 UTC
From: "Dave \"Doc\" Corio" <dcorio@adelphia.net>
Message-ID: <LtydnU9-24JrGE3fRVn-rA@adelphia.com>
Source record: 73585

From my own experience (water problems aside) use a smaller pipe to drive a pilot hole. If your ground mount is 1 1/8", use either a 3/4, or at the most, 7/8" pipe to make a pilot hole. I tried using 1 1/8", and ended up with quite a bit of "slop". 3/4" seemed to yield the best results for me. Leaves enough earth to firmly hold the base, yet makes it very easy to install without beating the heck out of the base Itself!

73
Dave
N0HNJ

2520. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 03:17:18 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <Or0Ae.35916$B_3.29902@fe05.lga>
Source record: 73586

Owen, I tried to send this as a reply to you, but your email address was
rejected, so I had to send this to the group. My response appears below your

Walt

"Owen" <owen@no.where> wrote in message
news:fprtc119eucfn8p7evsaio4096hihfshdu@4ax.com...
> On Wed, 6 Jul 2005 21:23:52 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>
> >> If you like, I am saying your approach is valid for lossless lines, it
> >> is also valid for all distortionless lines, but I think it is not
> >> accurate for lines in the general case because it isn't correct if
> >> Xo!=0.
> >>
> >> Owen
> >
> >Owen, if X = 0 there is no attenuation, but you're saying my material is
> >invalid if X is not 0? I'm sorry, but I'm confused.
>
> Walt, it has just occurred to me that I am using the "actual" Zo, not
> the nominal Zo, and I think your rho calc is based on the nominal Zo,
> as it will be measured with an instrument presumably calibrated for
> nominal Zo.
>
> I have compared the loss calculated by your method (with rho based on
> nominal Zo, Zo=Ro+j0) and my method and they are very similar (though
> not the same). I have added a function to calculate the loss using
> your formula based on nominal Zo and plotted it, along with the
> difference to the power based loss calc. They are at
> http://www.vk1od.net/temp/reflection.htm .
>
> If your method is based on nominal Zo, rather than the actual Zo, it
> is likely to be an approximation, though on this example, it is pretty
> close and probably is quite adequate for most practical lines at HF
> and above. (The error increases as frequency is reduced (Zo departs
> more from nominal Zo).)
>
> Having resolved the apparent inconsistency... I am still in search of
> a derivation of the Michaels formula.
>
> Owen

----- Original Message -----
From: "Owen" <owen@no.where>
Newsgroups: rec.radio.amateur.antenna
Sent: Friday, July 08, 2005 6:08 PM
Subject: Re: Calculating loss on a mismatched line

Hi Owen,

I'm trying to understand your Mathcad presentations, but I've run into some roadblocks concerning terminology, some of which I'm not familiar with. I confess my questions prove my ignorance, but that's ok if one's trying to learn. However, I was using nominal Zo.

First, Xo!=0. I don't know what this means.
Second, what does MML stand for in English?
Third, in 'functions for V, I, Z, etc at z'. Where is 'z'? I cannot find any reference to it.
Fourth, 'exp'. Exponent? If so, of what? e?
Fifth, I understand 'x' as distance along the line from the termination, but what is 'y'?
Sixth, what is AppLoss? Approximate? Apparent? Applied?
Seventh, 'DLoss'. What is 'D'? Dielectric? Again, what is the 'y' term? An ordinate value?
Eighth, in the LineLoss(x,y) = 10log... the identical right-hand terms in both numerator and denominator, the identical functions of 'e^^ x e^^. what is the meaning of the bar above the second appearance of 'e'? And above gamma(x)?

I want to understand your math presentation, Owen, especially when I see that Loss(x,0 - W2DUloss(x,0) is so small I want to understand what makes the difference. So I'd appreciate it if you'd set me straight on the points I made above.

Walt

2521. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 03:46:59 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <TS0Ae.144440$on1.37843@clgrps13>
Source record: 73587
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Polymath" <invalid@invalid.invalid> wrote in message
news:42cf5a7c$1_2@x-privat.org...
> Actually, just did a quick webbing and found enough to
> realise that the claims are founded upon feet of clay.....
>
> 1. You do not separately excite the E and H fields because
> if you excite an E field, you get a corresponding H field, and vice-versa,
> even if it is your intention to excite separately.
>
> 2. The differential forms of Maxwell describe the fields at _EVERY_
> infinitesimal point and there is no way that the attempt to excite two
> separate fields from two separate mechanical contrivances will result
> in registration at every single point. Indeed, it is doubtful that
> registration
> will be achieved at all at any infinitesimal point. In any case, as in (1)
> above,
> your E field will have its H, and your H field will have its E field
> already.
>
> 3. In the accepted equations describing the generated field, radiation
> comes only
> from accelerating charges. Thus the capacitive elements of the CFA will
> create the near field (decaying as 1/(r^2)) but not any radiated field
> (decaying as 1/r). I wonder if the measurements resulting in the claims
> for the CFA were made in the near field?
>
> I wonder if the whole thing is intended as an elaborate hoax, and that the
> authors, in their original paper in Wireless World, relied on the fact
> that
> most readers' eyes would glaze over when faced with the maths of vector
> fields? (Remember, that in this NG we've had someone who boasts of
> two degrees, one in maths and the other in electronics, stating that
> e^(-jwt)
> is a function that decreases with increasing time, thus indicating that
> the
> awarding of a degree together with the professing of mathematical
> equations is no guarantee of competence!)
>
> I suggest http://farside.ph.utexas.edu/teaching/em1/lectures/node53.html
> etc
> as a good revising/learning/debunking cookbook. (Don't start from node
> 53!)
>

> "Polymath" <invalid@invalid.invalid> wrote in message
> news:42cf4d37_3@x-privat.org...
>> I've just about got enough elec-and-mag theory to be
>> able to understand the claims made for the GM3HAT
>> CFA; any pointers to the patent claims?

Not the first time the CFA has been discussed here. The consensus is that
it is nonsense. Belrose has probably done the most rigorous investigation.
See the paper at http://download.antennex.com/shack/Jun00/paperdavos.pdf

I wonder who it was that is not familiar with Euler's formula.

Frank

2522. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 06:12:23 UTC
From: Owen <owen@no.where>
Message-ID: <a6d1d15hvsbgksu5t7fj3duv3o44k59eho@4ax.com>
Source record: 73588

On Sat, 9 Jul 2005 23:17:18 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>I'm trying to understand your Mathcad presentations, but I've run into some
>roadblocks concerning terminology, some of which I'm not familiar with. I
>confess my questions prove my ignorance, but that's ok if one's trying to
>learn. However, I was using nominal Zo.

Not at all, you are far more eminent that I on this topic, and I
appreciate your review. I am learning from all this.

Apologies for the difficulty in understanding my notation. Some of it
breaks into psuedo programming code.
>
>First, Xo!=0. I don't know what this means.

Not equals.

>Second, what does MML stand for in English?

MLL? Matched Line Loss (dB/m)

>Third, in 'functions for V, I, Z, etc at z'. Where is 'z'? I cannot find any
>reference to it.

These quantities are a function of z, where z is a position on the
line. The convention that I have used for displacement is that it is
negative towards the generator. When it matters, displacement is in
metres. The z is just used in definition of some functions in Matchcad
(where you see :=), I have used x for position variable in the graphs.

>Fourth, 'exp'. Exponent? If so, of what? e?

exp(x) is e to the power of x (For clarity, I shouldn't have written
it that way, it works, but Mathcad understands the meaning of e
superscript x as e to the power of x, as you will see in some of the
expressions, and it is easier to read.)

>Fifth, I understand 'x' as distance along the line from the termination, but
>what is 'y'?

In some of the functions, I have written them to calculate some
quantity between two arbitrary points x and y. They are used in the
definition of fuctions (where you see :=). Most of the graphs use 0
for y so they are plotted wrt the load position

>Sixth, what is AppLoss? Approximate? Apparent? Applied?

Approximate Loss, and it was incorrectly based on Zo rather than
nominal Zo.

>Seventh, 'DLoss'. What is 'D'? Dielectric? Again, what is the 'y' term? An
>ordinate value?

DLoss was equivalent to AppLoss.

>Eighth, in the LineLoss(x,y) = 10log... the identical right-hand terms in
>both numerator and denominator, the identical functions of 'e^^ x e^^. what
>is the meaning of the bar above the second appearance of 'e'? And above
>gamma(x)?

The bar above the variable is the complex conjugate operator.

>
>I want to understand your math presentation, Owen, especially when I see
>that Loss(x,0 - W2DUloss(x,0) is so small I want to understand what makes
>the difference. So I'd appreciate it if you'd set me straight on the points
>I made above.

Walt, in the models at http://www.vk1od.net/temp/LineLoss.htm , I now
know why there is such a gap between DLoss and LineLoss. You will
recognise AppLoss / DLoss is your Appendix 8 expression, but my rho
function was based on the modelled complex value of Zo (characteristic
impedance), not the nominal value of Zo.

In the second lot at http://www.vk1od.net/temp/reflection.htm ,
AppLoss is equivalent to DLoss and it is based on nominal Zo, W2DULoss
you will see calculates the rho term (though not identified) using
nominal Ro.

Comparing the results with loss calcuated from P(x)/P(y) (the ratio of
the real power at points x and y), the conclusion is that using your
expression with actual Zo is not at all accurate, using it with
nominal Zo is very close. If I force Zo to be real for all modelling,
the results of all methods is exactly the same (within rounding errors
of the order of 10 to the power of -14)

Some of your questions are just about the Mathcad notation (though
that is not too dissimilar to normal handwritten math notation), but
some of it is my expression and usage. Again my apologies for
confusing with too little explanation. I appreciate your review and
comments Walt.

Owen
--

2523. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 07:58:15 UTC
From: nm5k@wt.net
Message-ID: <1120982295.417023.206030@f14g2000cwb.googlegroups.com>
Source record: 73589

The bottom half of each
antenna consists of 9 quarter-wavelength wires that connect to the
center of
the tower and slope downwards to the ground at a 45 degree angle.

Sure, thats a "1/2 wave" antenna, but I would always consider that
a ground plane, rather than 1/2 wave vertical. It's got sloping
radials.
Same thing I used to run on 40m. I always called it a 1/4 wave ground
plane... MK

2524. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 08:07:56 UTC
From: nm5k@wt.net
Message-ID: <1120982876.622695.3040@g44g2000cwa.googlegroups.com>
Source record: 73590

End feeding seems more difficult than center feeding.

Fairly easy. I always preferred the "gamma loop" type
matching device. On a low freq antenna, that loop could get a
bit large. On 20m, a 18-22 inch single turn loop would match it no
problem.
maybe less than that, cuz using the "standard" 22 inch loop for 20m,
you will usually tap around the mid point of the coil. So the coil
could
be shrunk down, to use more of it. I always used lengths of coax for
caps
if needed. "open stub" 100-120 pf is a good value for 20m.
You can also use a regular coil to match, but my gut feeling is the
single turn coil is a bit more efficient. I've never actually compared
though...
BTW...I consider WWV's antennas to be 1/4 wave ground planes being they
have elevated sloping 1/4 wave radials.
MK

2525. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 08:38:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <daqmp7$4m5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73591
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

From 'inventor' Hately's original descriptions of his CFA, it is so glaringly obviously a load of nonsense that anybody who takes the time to mathematically expose the fraud, himself exposes his own weakness and uncertainty in the subject and has already been partially taken in by it.

Waste no more time.

Reg.

2526. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 08:51:50 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d0e73b_1@x-privat.org>
Source record: 73594
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Someone who has recently obtained a post as a teacher of
maths at a school in Strood, Kent!

Worrying, is it not?

Hardly surprising, therefore, to find that that person's greatest
achievement in Ham Radio was to aspire to a licence issued under
the gangrenous degeneration that is the M3/CB Fools' Licence scheme!

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:TS0Ae.144440$on1.37843@clgrps13...

> I wonder who it was that is not familiar with Euler's formula.

2527. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 08:54:55 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d0e73b$2_1@x-privat.org>
Source record: 73593
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

One of my purposes in scraping off the rust from 34 years'
of unused E-M theory was specifically so that I could evaluate
the claims made for the CFA.

I was intrigued by the claims but at no times taken in by them.

But yes - I exposed my ignorance but not any weakness, but there is never
any
problem with such exposure if it is done in an open spirit of eagerness to
learn!

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:daqmp7$4m5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> From 'inventor' Hately's original descriptions of his CFA, it is so
> glaringly obviously a load of nonsense that anybody who takes the time
> to mathematically expose the fraud, himself exposes his own weakness
> and uncertainty in the subject and has already been partially taken in
> by it.
> Waste no more time.

2528. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 08:55:08 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Mn5Ae.30769$ro.11570@fed1read02>
Source record: 73592
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

"Ron" <wa0kds@yahoo.com> wrote in message news:42CAAF91.50507@yahoo.com...
>
>
> Hank Oredson wrote:
>> "Ed Price" <edprice@cox.net> wrote in message
>> news:Ifpye.27243$ro.18610@fed1read02...
>>
>>>"John" <jwh_fla(nospam)@hotmail.com> wrote in message
>>>news:Wkmye.61939$%Z2.8135@lakeread08...
>>>
>>>>If an agent, a representative of an insurance company, sells and the
>>>>company accepts a property then anything that happens (if fortuitous, or
>>>>accidental) to that property is covered as long as it falls within the
>>>>policy language, perils insured against and property covered.
>>>>
>>>>The company can't come back AFTER a loss and deny payment because of
>>>>something not defined in the policy. They can't just make it up after
>>>>the fact.
>>>>
>>>>73
>>>
>>>I'll bet that there's "language in the policy" that is sufficiently vague
>>>and flexible such that the company can stretch a loophole for anything
>>>that it wants. Maybe I'm too paranoid, but the insurance company expects
>>>that an insured property is a normal and typical example of materials and
>>>construction, and that due care was applied to the design. Further, the
>>>property should be in compliance with local existing building codes and
>>>standards.
>>>
>>>If you wired half your house with lamp cord, never got a permit, and have
>>>no record of inspection, do you think the company agent should know this
>>>by himself? If the loss is big enough, and especially if there's some
>>>unusual circumstances (fire inspector's report, neighbor's claims), then
>>>the company's lawyers have plenty of room to work in. You may have the
>>>utmost confidence in your own workmanship, but, if the insurance company
>>>is trying to avoid a $500k claim, all they have to do is say "no." So
>>>then what happens? You take the insurance company to court, and they ask
>>>you about your experience in soils engineering, concrete construction,
>>>structural engineering, calculation of wind loading, welding
>>>certifications, experience with lightning protection, etc. They will cut
>>>you up into very small pieces.
>>>
>>>Everything unusual about your property should be defined, and if your

>>>agent is still eager to sell you a policy despite your "creative
>>>engineering", then I would start to wonder why the agent is so desperate
>>>to sell policies.
>>
>>
>>
>> Um ... let me guess ... you don't carry a general liability rider?
>> Or if you do, you were not careful to read the details?
>>
>> They are not expensive, and will cover anything ... and can even
>> cover intentional neglegence by the owner. Every ham with a tower
>> (or a pool, or horses, or a big dog, or ...) should have one.
>>
>
> Yes but you need everything first insurance with one company and then at
> the maximum but the minimums. You pay dearly for a general liability
> rider if you take it all into account. Yes you are protected.
>

Hank, those general riders are expensive, and no, I don't have one. OTOH, I am not erecting a 75' tower, made with two dissimilar structural systems, joined together by amateur engineering and welding, a very minimal concrete base, and held in place with guy wires running to nearby trees and an illegal encroachment onto someone else's property. The OP wanted our opinion of his efforts; he got 'em. The extent of my insurance coverage has absolutely no bearing on the subject of AD5TH's tower project.

--
Ed
WB6WSN
El Cajon, CA USA

2529. [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 09:48:10 UTC
From: zzl <antennazzl@163.com>
Message-ID: <daqqsiqpl1@news.yaako.com>
Source record: 73595

I can not find it.

2530. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 10:21:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <daqsrq$jg4$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73596
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I see you are accustomed to self analysis. Not a bad thing.

But you unwittingly lowered yourself to the CFA level.

On the other hand, you have rapidly caught up with your true potential
which exceeds mine.

I have been worried about your recent absence and silence. Fearing the
worst in this gradually extending police state. Welcome back!

==========

"Polymath" <invalid@invalid.invalid> wrote in message
news:42d0e73b$2_1@x-privat.org...
> One of my purposes in scraping off the rust from 34 years'
> of unused E-M theory was specifically so that I could evaluate
> the claims made for the CFA.
>
> I was intrigued by the claims but at no times taken in by them.
>
> But yes - I exposed my ignorance but not any weakness, but there is
never
> any
> problem with such exposure if it is done in an open spirit of
eagerness to
> learn!
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:daqmp7$4m5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> > From 'inventor' Hately's original descriptions of his CFA, it is
so
> > glaringly obviously a load of nonsense that anybody who takes the
time
> > to mathematically expose the fraud, himself exposes his own
weakness
> > and uncertainty in the subject and has already been partially
taken in
> > by it.
> > Waste no more time.
>
>

2531. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 10:25:57 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d0f794$1_1@x-privat.org>
Source record: 73597
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Thank-you for your kind words.

At 6'3" and 20 stone, I fear that my potential,
gravitational at least, exceeds that of most people!

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:daqsrq$jg4$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>I see you are accustomed to self analysis. Not a bad thing.
> But you unwittingly lowered yourself to the CFA level.
> On the other hand, you have rapidly caught up with your true potential
> which exceeds mine.
> I have been worried about your recent absence and silence. Fearing the
> worst in this gradually extending police state. Welcome back!

2532. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 10:45:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d1v2deipho446@corp.supernews.com>
Source record: 73598

When radials are in the same plane, they don't radiate a significant amount. But when slanted downward, they do, pretty much the same as a conical element of the same outside dimensions. You can call a quarter wave vertical with sloping radials a "quarter wave ground plane" if you like, but unlike one with horizontal radials, the radiating portion is longer than a quarter wavelength.

In the case of the antenna being described, the upper radiating part of the dipole is a quarter wavelength and the lower part is about 0.7 times a quarter wavelength but effectively large diameter.

We have to get over the notion that calling some part of the antenna structure "ground" gives it some kind of special properties. It doesn't.

Roy Lewallen, W7EL

nm5k@wt.net wrote:
> The bottom half of each
> antenna consists of 9 quarter-wavelength wires that connect to the
> center of
> the tower and slope downwards to the ground at a 45 degree angle.
>
> Sure, thats a "1/2 wave" antenna, but I would always consider that
> a ground plane, rather than 1/2 wave vertical. It's got sloping
> radials.
> Same thing I used to run on 40m. I always called it a 1/4 wave ground
> plane... MK
>

2533. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 11:43:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dar1lc$1sf$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73599
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

What worries me is that people can disappear from the streets, be
removed from circulation, without any reason except that it might
possibly be something to do with the Official Secrets Acts. Untruthful
accusations by unfriendly neighbours about terrorist associations, for
example, would be of course kept equally secret.

Relatives are barred from asking questions about missing persons.

==========

2534. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 11:54:48 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d10c52$1_3@x-privat.org>
Source record: 73600
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

The National government is a Socialist one.

What other National Socialist governments were there?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dar1lc$1sf$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> What worries me is that people can disappear from the streets, be
> removed from circulation, without any reason except that it might
> possibly be something to do with the Official Secrets Acts. Untruthful
> accusations by unfriendly neighbours about terrorist associations, for
> example, would be of course kept equally secret.
>
> Relatives are barred from asking questions about missing persons.

2535. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 13:02:44 UTC
From: Wankel Rotary <no@no.yes.no.yes.no.org>
Message-ID: <U%8Ae.2948$Rm2.2725@newsfe6-gui.ntli.net>
Source record: 73601
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Polymath wrote:
> Thank-you for your kind words.
>
> At 6'3" and 20 stone, I fear that my potential,
> gravitational at least, exceeds that of most people!

...and those are just the dimensions of your head so we believe!

Toot toot old son.

2536. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 13:42:47 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <hr62d1puaatc248d4rmknb7eqho3qjrjt5@4ax.com>
Source record: 73602
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

I admit I have only read the first few and the last post on this subject, but I just have to offer my opinions....

This is Amateur Radio. If the insurance companies and the politicians had their ways, we probably would not do much of any of this.

Here is a fellow who has takes his own unique circumstances and put up an experimental antenna support. He has chosen to accept the responsibility of haven chosen to do things differently. He has not done it the way I would have but only time will tell if he has fulfilled the structural requirements.

I have been down my own path on towers since the early 1960's and experienced two failures. It never occurred to me to call the insurance company. I always made certain that the mess stayed within the confines of my property.

Every tower project I have done has had at least one significant aspect that could be improved upon.

The only problems I see with using a tree as a guy point is that it moves a little and you have to take care to not kill the tree. Dead trees are unreliable.

In a lot of neighborhoods, land use is negotiable. Out here in the country I have come to accept that a few cows in the yard are something that happens from time to time. What constitutes encroachment is in the eye of the beholder...

I have always wondered about the accepted practice of putting up a 60 foot tower of all the same size sections. It seems to me that the top half or at least third would be better if it were lighter. It certainly is not going to see the same stresses as the lower components.

AD5TH lives in an area that sees some high winds, I hope this bad experience with the nay sayers does not keep him from sharing his experiences in the future.

73, de W8CCW

On Sun, 10 Jul 2005 01:55:08 -0700, "Ed Price" <edprice@cox.net> wrote:

>> Yes but you need everything first insurance with one company and then at
>> the maximum but the minimums. You pay dearly for a general liability
>> rider if you take it all into account. Yes you are protected.

>>
>
>Hank, those general riders are expensive, and no, I don't have one. OTOH, I
>am not erecting a 75' tower, made with two dissimilar structural systems,
>joined together by amateur engineering and welding, a very minimal concrete
>base, and held in place with guy wires running to nearby trees and an
>illegal encroachment onto someone else's property. The OP wanted our opinion
>of his efforts; he got 'em. The extent of my insurance coverage has
>absolutely no bearing on the subject of AD5TH's tower project.

2537. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 14:44:19 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835 42D1425325@zetnet.co.uk>
Source record: 73606

> I do plan to add a fair number of guys, and will be installing them just as
> you have suggested. I do have a question about driving the 1 1/8" mounting
> tube into the earth. The directions give a warning about splitting the
> plastic insert and suggest placing a piece of wood on top of the tube and
> then hammer on the wood. The soil here is clay, and the ground is
> quite dry,
> at the present time. Do you, or anyone else, have any suggestions about
> driving the tube into the ground. Should I drive a wooden stake first to
> form a hole, remove the stake, and then drive the tube into the hole
> left by
> the stake?

Post Hole/fencing Borer comes to mind or depending on your current soil condition you could use a hose pipe with a tube inserted in the tip and bore a hole that way, albeit fairly high pressure is needed, but that could be achieved with a pressure washer. As you start off your bound to be soaked a bit, but as you [bore deeper] push/ pull the nozzle out of the hole so that excess soil/clay can be removed by the water, bore down to your required depth, insert pole and back fill with sand or tamp down soil sides. This is also one way to ensure you can get a decent enough hole, deep enough to insert a earth stake. Your idea of utilising a hole by driving in a stake would no doubt give you problems extracting it back out again as I assume that you would be requiring a depth of about 900mm? Dave d:-)

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Don't.

2538. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 14:59:42 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <iKaAe.35991$B_3.35142@fe05.lga>
Source record: 73603

<Dan Richardson> wrote in message
news:k0a2d11qfpdb3f55q6kse6a6c3n43v4i22@4ax.com...
> On Sun, 10 Jul 2005 17:48:10 +0800, "zzl" <antennazzl@163.com> wrote:
>
> >I can not find it.
> >
>
> Find What?

Hi Danny, your question reminds me of the 4-year old in a restaurant, went to find the rest room, then came back and told his mother he couldn' find it. So she went with him and discovered the reason he couldn't find it was because he had his underpants on backward.

Walt

2539. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 15:35:34 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ae48a$42d1404e$97d55c31$21628@ALLTEL.NET>
Source record: 73604
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I hope your tinfoil hat is intact... Mind control waves are being sent out daily over a CFA antenna.

I have visted your gulags just south of London and obsrved the slaves of the new order as they were forced to drink warm beer at the Bull. Oh the inhumanity of it all.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dar1lc$1sf$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> What worries me is that people can disappear from the streets, be
> removed from circulation, without any reason except that it might
> possibly be something to do with the Official Secrets Acts. Untruthful
> accusations by unfriendly neighbours about terrorist associations, for
> example, would be of course kept equally secret.
>
> Relatives are barred from asking questions about missing persons.
>
> ====================================
>
>

2540. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 16:43:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aqj2d1t7h11bppvc0ld8sb30i99upqq8tj@4ax.com>
Source record: 73605
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 10 Jul 2005 11:35:34 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I have visted your gulags just south of London and obsrved the slaves of the
>new order as they were forced to drink warm beer at the Bull. Oh the
>inhumanity of it all.

Hi Fred,

Over here (curiously evocative of a song, that) we have taken to a
British import called Soma - AKA network news, choose any flavor. The
"state" advises us to wear tin-foil hats to protect against terrorism.

73's
Richard Clark, KB7QHC

2541. Re: Recommended Books

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 16:49:21 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d2kbrd0pamve2@corp.supernews.com>
Source record: 73607

The third edition of Antennas (recommended by Joel Kolstad) is certainly mandatory for study. Note that a paperback edition exists that costs much less than the hardback edition. The third edition is rather directed towards specific antennas (or classes of antennas) with plenty of examples and problems.

Do look for the first edition of Antennas by Professor Kraus (published in 1950). In my prejudiced opinion, since I studied under Professor Kraus, the first edition is a key text to antenna theory.

One should also have the ARRL's antenna book - relatively low cost and a wealth of practical information.

Kraus third, an HP calculator, and diligent working of the examples in the third edition will provide a real education about antennas and their environment.

Go for it! 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Joel Kolstad" <JKolstad71HatesSpam@yahoo.com> wrote in message
news:11ct71160lhbl70@corp.supernews.com...
> "Jayson Davis" <eclecticboxers@yahoo.com> wrote in message
> news:Xowze.1941$yL4.1044@fe02.lga...
> > I'm looking for some recommendations on books about antennas and antenna
> > theory.
>
> "Antennas" by Kraus & Marhefka:
>
http://www.amazon.com/exec/obidos/tg/detail/-/0072321032/qid=1120836458/sr=8
-1/ref=pd_bbs_ur_1/103-0117018-4818221?v=glance&s=books&n=507846
>
> It may well be the last edition given that Dr. Kraus died last year.
>
> The usual "classics" also include Balanis's "Antenna Theory: Analysis and
> Design" and Stutzman & Thiele's, "Antenna Theory and Design." IMO, Kraus
is a
> better place to start in that the math is somewhat simpler and Kraus was a
> very "applied" sort of guy.
>
> ---Joel Kolstad
>
>
>

2542. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 16:52:59 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <darjpc$4l4$1@mailhub227.itcs.purdue.edu>
Source record: 73608

The only thing I had on hand was some square cross-sectional hard wood stake. The cross-sectional diagonal length was about 3/4 of the Butternut mounting tube diameter. I have clay soil and we are in the middle of a drought, so I used plenty of water and each time went an inch or two deeper. Driving the mounting tube was quite easy, and the plumb is quite good.

The tube is now in the ground and secured to a DX Engineering stainless ground plane radial plate. http://dxengineering.com/

"Dave "Doc" Corio" <dcorio@adelphia.net> wrote in message news:LtydnU9-24JrGE3fRVn-rA@adelphia.com...
> From my own experience (water problems aside) use a smaller pipe to drive
> a pilot hole. If your ground mount is 1 1/8", use either a 3/4, or at the
> most, 7/8" pipe to make a pilot hole. I tried using 1 1/8", and ended up
> with quite a bit of "slop". 3/4" seemed to yield the best results for me.
> Leaves enough earth to firmly hold the base, yet makes it very easy to
> install without beating the heck out of the base Itself!
>
> 73
> Dave
> N0HNJ

2543. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 17:23:38 UTC
From: dplatt@radagast.org
Message-ID: <11d2mcqsqoqu162@corp.supernews.com>
Source record: 73609

In article <11d1v2deipho446@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>We have to get over the notion that calling some part of the antenna
>structure "ground" gives it some kind of special properties. It doesn't.

I think it was Bob Pease of National Semiconductor who commented along
the lines of "You may be able to trust your mother. If you're
extremely lucky you may be able to trust your government. You can't
trust your ground."

Or, in the short form, "There is no ground". At least, not as a
single, uniform entity with constant (and special) properties.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2544. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 17:50:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d16100$1_1@spool9-west.superfeed.net>
Source record: 73610

zzl wrote:
> I can not find it.

http://www.eznec.com/eznecpro.htm
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2545. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 17:56:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d1625e$1_1@spool9-west.superfeed.net>
Source record: 73611
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Walt Davidson wrote:
> The human rights group,
> Liberty, says that the UK is "sleepwalking into a police state".

For a police state to exist, the first step is
to disarm the citizens.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2546. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 17:59:56 UTC
From: Gerard Lynch <gerrylynch@freenetname.co.uk>
Message-ID: <rYydnXpb6di4_0zfRVnyhA@brightview.com>
Source record: 73612
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42d1625e$1_1@spool9-west.superfeed.net...

> For a police state to exist, the first step is
> to disarm the citizens.

Uh oh, we've been crossposted with the Murricans.

--
73

Gerry G0RTN (who thinks the post-Dunblane gun laws were unnecessary but
loses no sleep about it as he has no intentions of packing heat himself)
Vanity Page at http://www.gerrylynch.co.uk

2547. Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 18:11:14 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <daroc3$6rk$1@mailhub227.itcs.purdue.edu>
Source record: 73613

I am in the process of installing a Butternut HF6V. The mounting tube of the HF6V is clamped to a DX Engineering stainless radial plate. See the link below for a photo.
http://s48.yousendit.com/d.aspx?id=0RP6QT47MZYSL2JJKV3E19KX6G

2548. Re: Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 19:28:27 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d2tm5pnehb56e@corp.supernews.com>
Source record: 73614

Dear John Gotwals (N9JG ?):
Great picture! Unfortunately, it is accompanied by a lot of spam, some
of which I may need to reboot to get rid of.

Please describe the white, solid tube. Does it go into the ground? Did
the large U-bolt and the plastic wedges come with the kit? Is the tubular,
metal sleeve a splice?

Interesting set up. Let us know how things progress.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"John Gotwals" <john@gotwals.xremovey.com> wrote in message
news:daroc3$6rk$1@mailhub227.itcs.purdue.edu...
> I am in the process of installing a Butternut HF6V. The mounting tube of
the
> HF6V is clamped to a DX Engineering stainless radial plate. See the link
> below for a photo.
> http://s48.yousendit.com/d.aspx?id=0RP6QT47MZYSL2JJKV3E19KX6G
>
>

2549. Re: 20m Halfwave Vertical QST article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 19:32:18 UTC
From: nm5k@wt.net
Message-ID: <1121023938.113665.210000@f14g2000cwb.googlegroups.com>
Source record: 73615

We have to get over the notion that calling some part of the antenna
structure "ground" gives it some kind of special properties. It
doesn't.

Never said it did. But I still consider it a ground plane... :/
Or at least more of a ground plane, than a straight 1/2 wave.
Note the "VHFGP" in eznec, or elnec. It's noted as a "ground plane"
and is almost exactly the same antenna as WWV's versions.
Same 45 degree slope with the radials.
I do agree about the rest though.
BTW, when comparing a model of a "flat radial" GP, and one with
sloped radials, there looks to be an increase of current from the
radials,
but it's not huge. I think you need to get a pretty steep angle going
for the
cancellation effects to really disappear. In comparing the two on 10m,
at
40 ft at the base, the difference in gain between the two is very
small.
About a 1/10 a db or so... Where I show the straight 1/2 wave to be
appx .6 to .7 db better than the 1/4 GP's. Sloped radials, or straight.

Tends to make me think the 45 degree sloped version still acts a bit
more
like a usual flat GP, than the straight 1/2 wave. I think if you get
to 20 degrees
or less, then yes, it starts thinking it's more a straight vertical.
Of course, in the real world you would probably be hard pressed to tell
a
difference between any of them. MK

2550. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 19:45:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d17bf0$1_2@spool9-west.superfeed.net>
Source record: 73616
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Gerard Lynch wrote:
> "Cecil Moore" <w5dxp@hotmail.com> wrote:
>>For a police state to exist, the first step is
>>to disarm the citizens.
>
> Uh oh, we've been crossposted with the Murricans.

"Don't Tread On Me!", "Give me liberty or give me death!",
" When in the course of human events ...", 2nd Ammendment,
etc.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2551. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 20:13:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d30bbprdtpme6@corp.supernews.com>
Source record: 73617
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Gerard Lynch wrote:
>
> Uh oh, we've been crossposted with the Murricans.
>

Be sure to wash your hands after reading.

Roy Lewallen, W7EL

2552. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 21:10:33 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <d9gAe.212$_%4.159@newssvr14.news.prodigy.com>
Source record: 73618
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Walt Davidson wrote:
> On Sun, 10 Jul 2005 12:56:44 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>For a police state to exist, the first step is
>>to disarm the citizens.
>
>
> The citizens in this country have never been armed, and in fact even
> hand-guns for sport use were recently outlawed.
>
> 73 de G3NYY
>

That's why Cecil's ancestors left the British Isles, so they
could have the freedom to shoot one another, a proposition
to which my ancestors heartily gave support.
73,
Tom Donaly, KA6RUH

2553. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 21:14:05 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zoqdnZre7eBeEkzfRVn-jw@comcast.com>
Source record: 73619
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Walt Davidson wrote:
> On Sun, 10 Jul 2005 12:56:44 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>>For a police state to exist, the first step is
>>>to disarm the citizens.
>
>
> The citizens in this country have never been armed, and in fact even
> hand-guns for sport use were recently outlawed.
>
> 73 de G3NYY
>

"... NEVER BEEN ARMED ..."! Is that REALLY TRUE ?

If I recall history lessons regarding ANGLO-SAXON conflicts over the past 1000 years, I seem to recall that many armies were 'raised' in the Isles and the people provided their own weapons.

Only after the establishment of a solid Monarchy were the citizens disarmed. [Power consolidating control of Power].

Is my understanding of history wrong ?

2554. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 22:07:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <X_gAe.107$Rv7.93@newssvr21.news.prodigy.com>
Source record: 73620
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Ham op wrote:
> Walt Davidson wrote:
>
>> On Sun, 10 Jul 2005 12:56:44 -0500, Cecil Moore <w5dxp@hotmail.com>
>> wrote:
>>
>>
>>> For a police state to exist, the first step is
>>> to disarm the citizens.
>>
>>
>>
>> The citizens in this country have never been armed, and in fact even
>> hand-guns for sport use were recently outlawed.
>>
>> 73 de G3NYY
>>
>
> "... NEVER BEEN ARMED ..."! Is that REALLY TRUE ?
>
> If I recall history lessons regarding ANGLO-SAXON conflicts over the
> past 1000 years, I seem to recall that many armies were 'raised' in the
> Isles and the people provided their own weapons.
>
> Only after the establishment of a solid Monarchy were the citizens
> disarmed. [Power consolidating control of Power].
>
> Is my understanding of history wrong ?
>

So what kind of handguns did King Alfred outlaw? Maybe that
was why King Ethelred was so unready.
73,
Tom Donaly, KA6RU

2555. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 22:13:11 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <4873d1lhsk6hma9on1pfuvr5d6gae927t2@4ax.com>
Source record: 73621
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Polly parrotted:

>Actually, just did a quick webbing and found enough to
>realise that the claims are founded upon feet of clay.....
>
>1. You do not separately excite the E and H fields because
>if you excite an E field, you get a corresponding H field, and vice-versa,
>even if it is your intention to excite separately.

Can this be the same idiot who thought that a spring/damper
combination was the mechanical equivalent of a coil and capacitor, on
the grounds that they both exhibited resonance?

from
Aero Spike

2556. Re: Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 22:32:08 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <das7l9euh1@mailhub227.itcs.purdue.edu>
Source record: 73622

I would have liked to have attached the picture to my initial posting, but since this is not a binaries newsgroup, I abstained. I do not yet have a website, so this seemed the best way to make the picture available.

The Butternut HF6V is ground mounted by inserting a 1-1/8" X 24" tube (tube A) into the ground to a depth of approximately 21" with about 3" of the tubing above ground. Tube A has a fiberglass insulator inserted in the upper portion of the tube, and in addition to serving as an insulator, it is used as the support for the next antenna tube (tube B). According to the directions, the upper end of the insulator should be about 7" above ground.

There are no plastic wedges, but I did clamp tube A to the DX Engineering stainless radial plate which included a wedge made from light metal, probably cast or forged aluminum. This wedge and a stainless u-bolt are used to make an electrical and mechanical attachment between Tube A and the stainless radial plate.

I hope I have answered your questions,
John, N9JG

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11d2tm5pnehb56e@corp.supernews.com...
> Great picture! Unfortunately, it is accompanied by a lot of spam, some
> of which I may need to reboot to get rid of.

> Please describe the white, solid tube. Does it go into the ground?
> Did
> the large U-bolt and the plastic wedges come with the kit? Is the
> tubular,
> metal sleeve a splice?

2557. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 22:46:13 UTC
From: Gerard Lynch <gerrylynch@freenetname.co.uk>
Message-ID: <V46dnXMMs8miOEzfRVnytA@brightview.com>
Source record: 73623
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:X_gAe.107$Rv7.93@newssvr21.news.prodigy.com...

> Only after the establishment of a solid Monarchy were the citizens
> disarmed. [Power consolidating control of Power].

Um, a little. There's been a solid monarchy in England, at least, for about
1200 years.

Guns aren't an issue here. We're not allowed to have them. Nobody much (as
in about 90% of the population) cares. We care about things you folks have
never even heard about instead (fancy an ID card?)

Here endeth the second lesson.

--
73

Gerry G0RTN
Vanity Page at http://www.gerrylynch.co.uk

2558. Re: Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 23:24:24 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d3bgi9lrmm832@corp.supernews.com>
Source record: 73624

Dear John:

Indeed you have answered my questions. I also re-read the manual on the manufacturer's site. The full nature of "Tube A with insulator" is not clear from the manual.

Here is my read-back: "Tube A with insulator" is cylindrical, has a diameter of 1.125 inches, a nominal overall length of two feet, and at the end of "A" that is expected to be above ground is found a fiberglass solid rod that is attached to the bottom part of "A" (composed of an unknown substance) with a metal sleeve having an attachment bolt extending radially therefrom. Do I have it?

My curiosity is driven by an interest to use one of these antennas as a receiving antenna at the end of a very long piece of coax. From what you have taught me, the bottom end of "A" probably should go into a cylindrical concrete foundation. (Wind here is unattenuated by trees.) I had been under the impression that the "bottom" of this antenna was to be clamped to a pole that is driven (or set) into the ground.

For quite a different reason than learning the nature of the "bottom" of the antenna, when you have the antenna working, please estimate the inside diameter of a hollow cylindrical plastic tube that will be able fully to enclose the antenna (as if the tube was a radome). I have a colleague who is thinking of a "flag pole."

From DXEngineering and your comments, I now understand the wedges.

Thank you for your assistance.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"John Gotwals" <john@gotwals.xremovey.com> wrote in message
news:das7l9euh1@mailhub227.itcs.purdue.edu...
> I would have liked to have attached the picture to my initial posting, but
> since this is not a binaries newsgroup, I abstained. I do not yet have a
> website, so this seemed the best way to make the picture available.
>
> The Butternut HF6V is ground mounted by inserting a 1-1/8" X 24" tube
(tube
> A) into the ground to a depth of approximately 21" with about 3" of the
> tubing above ground. Tube A has a fiberglass insulator inserted in the
upper
> portion of the tube, and in addition to serving as an insulator, it is

used
> as the support for the next antenna tube (tube B). According to the
> directions, the upper end of the insulator should be about 7" above
ground.
>
> There are no plastic wedges, but I did clamp tube A to the DX Engineering
> stainless radial plate which included a wedge made from light metal,
> probably cast or forged aluminum. This wedge and a stainless u-bolt are
used
> to make an electrical and mechanical attachment between Tube A and the
> stainless radial plate.
>
> I hope I have answered your questions,
> John, N9JG
>
> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:11d2tm5pnehb56e@corp.supernews.com...
> > Great picture! Unfortunately, it is accompanied by a lot of spam, some
> > of which I may need to reboot to get rid of.
>
> > Please describe the white, solid tube. Does it go into the ground?
> > Did
> > the large U-bolt and the plastic wedges come with the kit? Is the
> > tubular,
> > metal sleeve a splice?
>
>

2559. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 23:27:01 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <99iAe.145698$on1.40186@clgrps13>
Source record: 73525
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Spike" <Aero.Spike@Technologies.invalid> wrote in message
news:4873d1lhsk6hma9on1pfuvr5d6gae927t2@4ax.com...
> Polly parrotted:
>
>>Actually, just did a quick webbing and found enough to
>>realise that the claims are founded upon feet of clay.....
>>
>>1. You do not separately excite the E and H fields because
>>if you excite an E field, you get a corresponding H field, and vice-versa,
>>even if it is your intention to excite separately.
>
> Can this be the same idiot who thought that a spring/damper
> combination was the mechanical equivalent of a coil and capacitor, on
> the grounds that they both exhibited resonance?
>
> from
> Aero Spike

The spring and damper can be exactly model as an electrical analog; as can virtually any physical system. As a reference refer to "Dynamics of Physical Circuits and Systems", by Lindsay and Katz at Concordia University, Montreal. ISBN 0-916460-21-5 published by Matrix of Beaverton OR.

Frank

2560. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-10 23:34:02 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d3c2korn62158@corp.supernews.com>
Source record: 73526
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Wow! Check your history. Once it was a requirement for persons in England
to be armed. Practice was also compulsory.

It is true, and always has been true, that only when the state is not
afraid of its armed populous that you have citizens rather than mere
subjects.

Respectfully, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:9g13d1l6ktfm3vstb5p5e93ptl6k77m228@4ax.com...
> On Sun, 10 Jul 2005 12:56:44 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
> >For a police state to exist, the first step is
> >to disarm the citizens.
>
> The citizens in this country have never been armed, and in fact even
> hand-guns for sport use were recently outlawed.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

2561. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:24:35 UTC
From: Luke <LUKE@theforceluke.com>
Message-ID: <42D1BC42.BF7135B7@theforceluke.com>
Source record: 73527
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Take a closer look at his photos !

Turnbuckels are not secured, they can work loose and cause failure.

Inadaquate ground wires from guy cables to ground rods.
The trees or light pole will explode is the cables take a hit.
Same for the tower ground wires, insufficient not to NEC specs.

Trees have roots to hold them in the dirt, telco poles do not.

Insufficient support posts in a few feet of dirt concrete filled pipes.
No substitute for cubic yards of concrete and or rebar.

Tower sections have already rusted, most likly internal rusting
as well.

Metal banding will damage the tree trunks, tree will be
susceptiable to disease and insect damage.

Nothing to be envious about this setup.

'structural integrity has not been established'
voice of star trek computer.

luke

Out2Lunch wrote:

> Anyone who would fault your tower installation has a serious case of "penis
> envy". It looks great and I will bet it will stand the test of time. It is a
> shame that every user group on the internet has so many weenie pricks
> lurking trying to find fault with every post. I'd be proud of a tower like
> that so don't let the idiots detract from it.
> 73!

2562. [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:30:27 UTC
From: zzl <antennazzl@163.com>
Message-ID: <dasegelpp1@news.yaako.com>
Source record: 73528

I need eznec/4 pro now,where can I download it.

2563. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:38:38 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7a592$42d1bf8f$97d55c31$27711@ALLTEL.NET>
Source record: 73529

www.eznec.com

"zzl" <antennazzl@163.com> wrote in message
news:dasegelpp1@news.yaako.com...
> I need eznec/4 pro now,where can I download it.
>
>

2564. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:43:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d3g58e0argi7f@corp.supernews.com>
Source record: 73530
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Spike wrote:
>
> Can this be the same idiot who thought that a spring/damper
> combination was the mechanical equivalent of a coil and capacitor, on
> the grounds that they both exhibited resonance?
>
> from
> Aero Spike

I'm that idiot. Actually, one of the very many. The equations for the two systems are identical.

Roy Lewallen, W7EL, ROW, ASI
(Reg's Old Wife and now Aero Spike's Idiot. The titles just keep accumulating. Of course I'm also a proud member of the OFC.)

2565. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:50:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d3gjeacauu7be@corp.supernews.com>
Source record: 73531

zzl wrote:
> I need eznec/4 pro now,where can I download it.
>
You can't download it. First go to http://eznec.com/eznecpro.htm and read the "Additional EZNEC/4 Information" section. Then after you've obtained the required NEC-4 license see http://eznec.com/ordering.htm for ordering information.

I'm afraid Lawrence Livermore will need more of a name than "zzl". And so will I.

Roy Lewallen, W7EL

2566. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:51:10 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <2ojAe.145746$on1.39889@clgrps13>
Source record: 73532
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11d3g58e0argi7f@corp.supernews.com...
> Spike wrote:
>>
>> Can this be the same idiot who thought that a spring/damper
>> combination was the mechanical equivalent of a coil and capacitor, on
>> the grounds that they both exhibited resonance?
>>
>> from
>> Aero Spike
>
> I'm that idiot. Actually, one of the very many. The equations for the two
> systems are identical.
>
> Roy Lewallen, W7EL, ROW, ASI
> (Reg's Old Wife and now Aero Spike's Idiot. The titles just keep
> accumulating. Of course I'm also a proud member of the OFC.)

Of course, I should have mentioned a mass/spring/damper (equivalent to capacitor/inductor/resistor), not just spring/damper. I think the only physical system that can not be entirely modeled as an electrical analog is a thermal system; which has no inductor equivalent.

Frank

2567. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 00:59:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d3h3g68cv8457@corp.supernews.com>
Source record: 73533
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Oops, I stand corrected -- thanks, Frank. Once again I read too hastily. A *mass*/spring combination mimics an inductor/capacitor, of course. A damper adds resistance. So a spring/damper combination would act more like an RC or RL circuit, but with a little stray L or C from the spring's mass.

Hope I don't have to give up my new title. Titles really impress folks in some parts of the world.

Roy Lewallen, W7EL, ROW, ASI, OFC

Frank wrote:
>
> Of course, I should have mentioned a mass/spring/damper (equivalent to
> capacitor/inductor/resistor), not just spring/damper. I think the only
> physical system that can not be entirely modeled as an electrical analog is
> a thermal system; which has no inductor equivalent.
>
> Frank
>
>

2568. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:04:39 UTC
From: bt <wb9woz@comcast.net>
Message-ID: <7uGdnYLYBKhfWEzfRVn-gg@comcast.com>
Source record: 73534

While we are on the subject, does anyone have a good source for the capacitors used on this antenna?

I have a HF6V thats been pretty mangled and want to rebuild it.

thanks

Bruce

2569. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:07:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7dh3d1lfgbhqmb1asco5std57dviskbuah@4ax.com>
Source record: 73535

On Sun, 10 Jul 2005 17:50:50 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I'm afraid Lawrence Livermore will need more of a name than "zzl". And
>so will I.
>
>Roy Lewallen, W7EL

Z-Z-Low's Headers reveal 60.0.43.78 is located near:
No.156 Fu-Xing-Men-Nei Street
Beijing 100031
CN

73's
Richard Clark, KB7QHC

2570. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:08:28 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <SFjAe.18552$x82.10049@fe03.lga>
Source record: 73536
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Gerard Lynch" <gerrylynch@freenetname.co.uk> wrote in message
news:V46dnXMMs8miOEzfRVnytA@brightview.com...
>
> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> news:X_gAe.107$Rv7.93@newssvr21.news.prodigy.com...
>
> > Only after the establishment of a solid Monarchy were the citizens
> > disarmed. [Power consolidating control of Power].
>
> Um, a little. There's been a solid monarchy in England, at least, for
about
> 1200 years.
>
> Guns aren't an issue here. We're not allowed to have them. Nobody much
(as
> in about 90% of the population) cares. We care about things you folks
have
> never even heard about instead (fancy an ID card?)
>
> Here endeth the second lesson.
>
>
> --
> 73
>
> Gerry G0RTN
> Vanity Page at http://www.gerrylynch.co.uk
>
Just try to imagine what you bloody 'ole Brits could have accomplished
around 1200 if you'd only had the tremendously high voltages achieved in the
near field of a CFA antenna to hurl at the enemy.

Walt

2571. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:23:40 UTC
From: CWB <cboone@nospam.earthlink.net>
Message-ID: <wSjAe.135795$PR6.68852@tornado.texas.rr.com>
Source record: 73537

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:zXhwe.1038$HV1.545@fed1read07...
> Might try giving us operating parameters.
>
> Are u going to operate repeaters only or skip or both?
> For repeaters and mobiles, you'll want vertical polarization. (Cross
> polarization can be 12dB or more)

20+db...not 12! 20db=100:1 power ratio....

> For skip, either vertical or horizontal will do.

Sometimes....depends on the conditions

> I can't put up a Yagi, so I use a Cushcraft AR-6 Ringo, 1/2 wave vertical
> Your results may vary.

Nowadays, a PAR or KB6KQ is best.....when the band is not open, you want to
use horizontal pol for best "local" coverage...out to 200+ miles or so

2572. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:29:13 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <JXjAe.268$_%4.243@newssvr14.news.prodigy.com>
Source record: 73539

Richard Clark wrote:
> On Sun, 10 Jul 2005 17:50:50 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>I'm afraid Lawrence Livermore will need more of a name than "zzl". And
>>so will I.
>>
>>Roy Lewallen, W7EL
>
>
> Z-Z-Low's Headers reveal 60.0.43.78 is located near:
> No.156 Fu-Xing-Men-Nei Street
> Beijing 100031
> CN
>
> 73's
> Richard Clark, KB7QHC

In that case, he should be able to buy a pirated
version at the local video store.
73,
Tom Donaly, KA6RUH

2573. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:29:15 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <LXjAe.145748$on1.101151@clgrps13>
Source record: 73538
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11d3h3g68cv8457@corp.supernews.com...
> Oops, I stand corrected -- thanks, Frank. Once again I read too hastily. A
> *mass*/spring combination mimics an inductor/capacitor, of course. A
> damper adds resistance. So a spring/damper combination would act more like
> an RC or RL circuit, but with a little stray L or C from the spring's
> mass.
>
> Hope I don't have to give up my new title. Titles really impress folks in
> some parts of the world.
>
> Roy Lewallen, W7EL, ROW, ASI, OFC
>

No problem Roy. To be exact a mass is equivalent to a capacitor.
As in Newton's 2nd law: f = m*dv/dt, and its electrical analog
i = c*dv/dt, where "v" refers to velocity in the mechanical case,
and voltage in the electrical. I think this qualifies me to place the
letters "ASI" after my name. Well; I must admit I took a quick
look at my physical systems text book, so hope it does not
disqualify me.

Frank Meredith ASI

2574. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:31:20 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <orGdnVKLBuRCVkzfRVn-gQ@adelphia.com>
Source record: 73541

bt wrote:
> While we are on the subject, does anyone have a good source for the
> capacitors used on this antenna?

Hamfests are a good place to start. I've seen some at most I've gone to.

- Mike KB3EIA -

2575. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 01:32:36 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <lsi3d1hr2haqqsc6qqmi2cdja8ghhvtq0t@4ax.com>
Source record: 73540

On Sun, 10 Jul 2005 20:04:39 -0500, bt <wb9woz@comcast.net> wrote:

>While we are on the subject, does anyone have a good source for the
>capacitors used on this antenna?
>
>I have a HF6V thats been pretty mangled and want to rebuild it.
>
>thanks
>
>Bruce

go to the www.bencher.com site; Butternut is also at that site and
they have parts lists there -- you should be able to order from
Butternut

bob
k5qwg

2576. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 02:00:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pek3d112590hmen7453frplc58ag5pamiq@4ax.com>
Source record: 73542

On Mon, 11 Jul 2005 01:29:13 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>In that case, he should be able to buy a pirated
>version at the local video store.

Hi Tom,

Would seem so. We outsourced the manufacture of our Nuke Submarine
propellers to them, handing them the plans, and they sold the
technology around the world.

73's
Richard Clark, KB7QHC

2577. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 02:04:53 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <9tkAe.277$_%4.44@newssvr14.news.prodigy.com>
Source record: 73543

BUT--- does that include Tech Support ?? :)

Richard Clark wrote:
> On Mon, 11 Jul 2005 01:29:13 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>In that case, he should be able to buy a pirated
>>version at the local video store.
>
>
> Hi Tom,
>
> Would seem so. We outsourced the manufacture of our Nuke Submarine
> propellers to them, handing them the plans, and they sold the
> technology around the world.
>
> 73's
> Richard Clark, KB7QHC

2578. Re: Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 02:29:35 UTC
From: John Gotwals <john@gotwals.xremovey.com>
Message-ID: <daslifldg1@mailhub227.itcs.purdue.edu>
Source record: 73544

A plastic rod has been partially inserted into tube A (to a depth of perhaps 6") at the end which is above ground. Tube A and the rod have been drilled at right angles to their axes of symmetry, and a screw has been inserted into the hole, and where the screw protrudes on the opposite side of tube A, a nut has been attached and tightened. When the antenna is constructed, this screw will serve as the junction for one end of a base matching coil (Coil Q) and for the shield from a short length of 75? matching coax (Coax R).

The instructions state that tube A can be placed in concrete, but they recommend slightly twisting tube A, while the concrete is setting, for easy removal later.

The manual states "in areas of frequent or heavy winds a set of short non-conductive guys should be used to reduce the stresses that wind loading will impart to the lower sections of the antenna."

As a first estimate, your friends cylindrical radome will have to have a diameter of at least 6", but I'll know more in a few days.

John, N9JG

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11d3bgi9lrmm832@corp.supernews.com...
> Dear John:
>
> Indeed you have answered my questions. I also re-read the manual on
> the
> manufacturer's site. The full nature of "Tube A with insulator" is not
> clear from the manual.
>
> Here is my read-back: "Tube A with insulator" is cylindrical, has a
> diameter of 1.125 inches, a nominal overall length of two feet, and at the
> end of "A" that is expected to be above ground is found a fiberglass solid
> rod that is attached to the bottom part of "A" (composed of an unknown
> substance) with a metal sleeve having an attachment bolt extending
> radially
> therefrom. Do I have it?
>
> My curiosity is driven by an interest to use one of these antennas as a
> receiving antenna at the end of a very long piece of coax. From what you
> have taught me, the bottom end of "A" probably should go into a
> cylindrical
> concrete foundation. (Wind here is unattenuated by trees.) I had been
> under the impression that the "bottom" of this antenna was to be clamped
> to
> a pole that is driven (or set) into the ground.

>
> For quite a different reason than learning the nature of the "bottom"
> of
> the antenna, when you have the antenna working, please estimate the inside
> diameter of a hollow cylindrical plastic tube that will be able fully to
> enclose the antenna (as if the tube was a radome). I have a colleague
> who
> is thinking of a "flag pole."
>
> From DXEngineering and your comments, I now understand the wedges.
>
> Thank you for your assistance.
> 73 Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
> "John Gotwals" <john@gotwals.xremovey.com> wrote in message
> news:das7l9euh1@mailhub227.itcs.purdue.edu...
>> I would have liked to have attached the picture to my initial posting,
>> but
>> since this is not a binaries newsgroup, I abstained. I do not yet have a
>> website, so this seemed the best way to make the picture available.
>>
>> The Butternut HF6V is ground mounted by inserting a 1-1/8" X 24" tube
> (tube
>> A) into the ground to a depth of approximately 21" with about 3" of the
>> tubing above ground. Tube A has a fiberglass insulator inserted in the
> upper
>> portion of the tube, and in addition to serving as an insulator, it is
> used
>> as the support for the next antenna tube (tube B). According to the
>> directions, the upper end of the insulator should be about 7" above
> ground.
>>
>> There are no plastic wedges, but I did clamp tube A to the DX Engineering
>> stainless radial plate which included a wedge made from light metal,
>> probably cast or forged aluminum. This wedge and a stainless u-bolt are
> used
>> to make an electrical and mechanical attachment between Tube A and the
>> stainless radial plate.
>>
>> I hope I have answered your questions,
>> John, N9JG
>>
>> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
>> news:11d2tm5pnehb56e@corp.supernews.com...
>> > Great picture! Unfortunately, it is accompanied by a lot of spam, some
>> > of which I may need to reboot to get rid of.
>>

>> > Please describe the white, solid tube. Does it go into the ground?
>> > Did
>> > the large U-bolt and the plastic wedges come with the kit? Is the
>> > tubular,
>> > metal sleeve a splice?
>>
>>
>
>

2579. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 03:14:22 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <56e1e$42d1e410$97d55c31$10419@ALLTEL.NET>
Source record: 73545

I guess that means once Roy sells him a copy, we can all buy it for the
usual $5.00 for a Chinese copy...:>)

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:7dh3d1lfgbhqmb1asco5std57dviskbuah@4ax.com...
> On Sun, 10 Jul 2005 17:50:50 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >I'm afraid Lawrence Livermore will need more of a name than "zzl". And
> >so will I.
> >
> >Roy Lewallen, W7EL
>
> Z-Z-Low's Headers reveal 60.0.43.78 is located near:
> No.156 Fu-Xing-Men-Nei Street
> Beijing 100031
> CN
>
> 73's
> Richard Clark, KB7QHC

2580. Re: [help] eznec\4 pro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 03:48:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d1ed21$1_2@spool9-west.superfeed.net>
Source record: 73546

zzl wrote:
> I need eznec/4 pro now,where can I download it.

You have to buy it first. I got mine on a CD.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2581. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 04:53:28 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1121057608.617204.268580@g49g2000cwa.googlegroups.com>
Source record: 73547

Richard, are you saying to go buy two identical antennas and mount them the same sans coax and then also put another reflector behind the 2nd one, ending up with a 3 element Yagi?
Cliff

"If you want an expected outcome, you do what you have to do and get on

with it. In your case, if you are seeking elegance you would then buy two more units, clamp them base-to-base, put them about a 20th wave behind the first two, and tune the reflector (make it bigger) by that same roughly 5%.
"

2582. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 04:55:58 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d3uubthg00468@corp.supernews.com>
Source record: 73548
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

My EE students, noting that the characteristic equations are the same,
regularly convert mechanical problems (of the mass-spring-damper type) into
electrical problems, solve, and then convert back to mechanical answers.
Some ME students catch on and some just do not get it. Of course, it helps
if one is using SI units all round. I continue to be in awe of MEs who
always seem to know whether the "pounds" they are talking of are
sort-of-like mass, or sort-of-like force, or money. I have even had it
suggested that energy and power are sort-of the same thing.

I am keen on Roy being the collector of titles. I have quite enough for
a lifetime. 73 Mac N8TT etc.

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11d3h3g68cv8457@corp.supernews.com...
> Oops, I stand corrected -- thanks, Frank. Once again I read too hastily.
> A *mass*/spring combination mimics an inductor/capacitor, of course. A
> damper adds resistance. So a spring/damper combination would act more
> like an RC or RL circuit, but with a little stray L or C from the
> spring's mass.
>
> Hope I don't have to give up my new title. Titles really impress folks
> in some parts of the world.
>
> Roy Lewallen, W7EL, ROW, ASI, OFC
>

2583. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 05:08:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d3vlnqak8tu73@corp.supernews.com>
Source record: 73549
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Years ago I tracked down a constriction ("resistance") in my house's water system with a bucket and stopwatch to measure flow ("current") and a fuel pump pressure gauge to measure watter pressure ("voltage") and a schematic of the "circuit". I kind of chuckled thinking of all the simplified explanations of electricity using water -- I found it much easier to convert in the other direction.

As for "pounds", I was always off by the acceleration of gravity squared in the only two one-semester courses I took which weren't metric, Statics and Dynamics. I never could remember which of those units -- pounds mass, pounds force, poundals, slugs, aargh, had the acceleration already built in and which didn't. I finally managed by first converting each problem to metric, solving it, then converting the result back to that God-awful system of units.

Roy Lewallen, W7EL

J. Mc Laughlin wrote:
> My EE students, noting that the characteristic equations are the same,
> regularly convert mechanical problems (of the mass-spring-damper type) into
> electrical problems, solve, and then convert back to mechanical answers.
> Some ME students catch on and some just do not get it. Of course, it helps
> if one is using SI units all round. I continue to be in awe of MEs who
> always seem to know whether the "pounds" they are talking of are
> sort-of-like mass, or sort-of-like force, or money. I have even had it
> suggested that energy and power are sort-of the same thing.
>
>
> I am keen on Roy being the collector of titles. I have quite enough for
> a lifetime. 73 Mac N8TT etc.

2584. Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 06:08:17 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <pan.2005.07.11.06.08.17.254845@removethis.oz.net>
Source record: 73550

Has anyone been able to get Eznec to run in Win4Lin (an emulator for running Windows as a Linux application)? I get the startup screen, but then an error window pops up saying EZWf14.DLL is missing. It is in the C:\Program Files/ezw directory (although Windows Explorer does not show it either). It works fine running Windows 98SE natively.

Bob, N7XY

2585. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 06:17:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ag34d1pvl52nfrln31f4hgkqne8sgeaaim@4ax.com>
Source record: 73551

On 10 Jul 2005 21:53:28 -0700, "Blue Dawg" <thecowboyace@yahoo.com>
wrote:
>Richard, are you saying to go buy two identical antennas and mount them
>the same sans coax...

Hi Cliff,

Put them back about ï¿½ wave, and tune them about 3-5% lower in
frequency = Two element yagi. If you want to chip in two more, you
can build them as directors.

73's
Richard Clark, KB7QHC

2586. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 07:08:49 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <9j64d1hm1pe9dm84rm2t455fo784uo9r5g@4ax.com>
Source record: 73552
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank wrote:

>The spring and damper can be exactly model as an electrical analog;

I'm sure you're right.

However, a coil/capacitor is not a model or analogue of a
spring/damper system. It was discussed extensively at the time.

from
Aero Spike

2587. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 07:51:59 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <0t74d1hv0gp3p0lcr80hpivnh2f155g1qg@4ax.com>
Source record: 73553
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Roy Lewallen wrote:

>Spike wrote:
>>
>> Can this be the same idiot who thought that a spring/damper
>> combination was the mechanical equivalent of a coil and capacitor, on
>> the grounds that they both exhibited resonance?
>>
>> from
>> Aero Spike
>
>I'm that idiot. Actually, one of the very many. The equations for the
>two systems are identical.
>
>Roy Lewallen, W7EL, ROW, ASI
> (Reg's Old Wife and now Aero Spike's Idiot. The titles just keep
> accumulating. Of course I'm also a proud member of the OFC.)

Posting under the sock-puppet "Airy R. Bean", he said the following
quoted below, and to which I was referring. I leave it to you to spot
the glaring error. I very much doubt you said anything like this.

The original message was posted in sci.physics at 9:53 am on 21st
January this year.

"Reactance is characterised by the storage of energy.

In the case of the capacitor, you might think that your
AC source is the only voltage source in your circuit, but
after the first 1/4 cycle, the capacitor acts as a voltage source
and starts to give back the energy that it has stored.

The combined result of the two voltage sources, your
AC excitation and the capacitor itself, accounts for
the out-of-phase current waveform.

(This bothered me for years! How could the current
be non-zero if the AC driving voltage was zero?!)

The same analogy applies to springs and to shock absorbers;
the spring stores energy when stretched; the shock-absorber
stores energy when compressed. Both the spring and shock
absorber will return energy at some time and this exhibit reactance!"

from
Aero Spike

2588. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 08:56:35 UTC
From: Trevor Day <Trev@secornwall.removethis.com>
Message-ID: <2OkFDdCGOj0CFwl3@secornwall.com>
Source record: 73554
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In message <SFjAe.18552$x82.10049@fe03.lga>, Walter Maxwell
<walt@w2du.com> writes
snip
>Just try to imagine what you bloody 'ole Brits could have accomplished
>around 1200 if you'd only had the tremendously high voltages achieved in the
>near field of a CFA antenna to hurl at the enemy.
>
>Walt

Excuse me for 'jumping in' here, it was difficult trying to locate a bit of the thread that referred to the current title (CFA) I would like to ask you learned chaps a question about the 'EH' antenna which I appreciate is not the same as the CFA but its near enough for me:-)

I have built a couple of these and used them on 40m. Performance hasn't been brilliant but they have worked and I was reasonably satisfied with the contacts achieved considering the fact I used a barefoot K2 at around 10 watts o/p and the antenna was sat on the shack bench connected to the K2 by a 1 metre BNC to BNC cable laid across the bench. (I only mention this last to try and forestall the inevitable comment that the feeder does all the work)

All of this was done out of interest just to see if the antenna worked at all, as my gut reaction was, and still is, sceptical regarding the claims of its method of operation. I am not a mathematician, so the various lengthy discussions regarding Maxwell's equations et al pass me by; I am more interested in the practical aspects of this rather than the theory. My question refers to the SWR bandwidth achieved using this system. For an electrically very short antenna of this type I expected something extremely sharp at resonance, perhaps in the order of 5 or 10 KHz between the 2:1 SWR points. In practice, the 2:1 SWR points are some 100 KHz or so apart. When fed with 100 watts from an IC706, the antenna itself does not get warm and neither does the short feeder so it doesn't appear to be acting as a dummy load. Can someone satisfy my curiosity and tell me (drawing comparisons with springs and dampers if need be:-) how this is achieved.

Thanks,
Trev G3ZYY

--
Trevor Day
UKSMG #217
www.uksmg.org

2589. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 09:48:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d4g3neii7f149@corp.supernews.com>
Source record: 73555
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Trevor Day wrote:

> Excuse me for 'jumping in' here, it was difficult trying to locate a bit
> of the thread that referred to the current title (CFA) I would like to
> ask you learned chaps a question about the 'EH' antenna which I
> appreciate is not the same as the CFA but its near enough for me:-)
>
> I have built a couple of these and used them on 40m. Performance hasn't
> been brilliant but they have worked and I was reasonably satisfied with
> the contacts achieved considering the fact I used a barefoot K2 at
> around 10 watts o/p and the antenna was sat on the shack bench connected
> to the K2 by a 1 metre BNC to BNC cable laid across the bench. (I only
> mention this last to try and forestall the inevitable comment that the
> feeder does all the work)
>
> All of this was done out of interest just to see if the antenna worked
> at all, as my gut reaction was, and still is, sceptical regarding the
> claims of its method of operation. I am not a mathematician, so the
> various lengthy discussions regarding Maxwell's equations et al pass me
> by; I am more interested in the practical aspects of this rather than
> the theory. My question refers to the SWR bandwidth achieved using this
> system. For an electrically very short antenna of this type I expected
> something extremely sharp at resonance, perhaps in the order of 5 or 10
> KHz between the 2:1 SWR points. In practice, the 2:1 SWR points are
> some 100 KHz or so apart. When fed with 100 watts from an IC706, the
> antenna itself does not get warm and neither does the short feeder so it
> doesn't appear to be acting as a dummy load. Can someone satisfy my
> curiosity and tell me (drawing comparisons with springs and dampers if
> need be:-) how this is achieved.
>
> Thanks,
> Trev G3ZYY
>

Sigh.

A couple of questions:

1. Have you tried using something like a loop or other non-magical antenna of similar physical size for comparison? Or putting a 20 dB pad between your rig and a decent antenna? Most people are amazed at how much they can do with 100 mW.
2. I assume you're using a "phasing network" or some similar device to achieve whatever it is the antenna is supposed to accomplish. The wide

bandwidth is a sure sign of loss, and the majority of it is just about surely in the "phasing network" and/or whatever matching network you're using. Have you checked to see if either of them is getting warm after a few minutes of key-down (with breaks to ID of course)?

But don't be surprised it they don't. If you're running 100 watts of CW, your average power output is probably no more than 20 watts while transmitting. If you're running SSB, it's considerably less than that unless you're using serious compression. Try running your rig normally (keying or talking) to a good-sized dummy load and see how long it takes for it to get noticeably warm. Then imagine it to be the size of your matching/"phasing" network and think about what you'd expect to happen if it were absorbing *all* your transmitter's power. It is, after all, absorbing most of it.

Roy Lewallen, W7EL

2590. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 10:06:12 UTC
From: Trevor Day <Trev@secornwall.removethis.com>
Message-ID: <pITiycGaRk0CFw3x@secornwall.com>
Source record: 73556
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In message <11d4g3neii7f149@corp.supernews.com>, Roy Lewallen
<w7el@eznec.com> writes
>Trevor Day wrote:
>
>> Excuse me for 'jumping in' here, it was difficult trying to locate a
>>bit of the thread that referred to the current title (CFA) I would
>>like to ask you learned chaps a question about the 'EH' antenna which
>>I appreciate is not the same as the CFA but its near enough for me:-)
>> I have built a couple of these and used them on 40m. Performance
>>hasn't been brilliant but they have worked and I was reasonably
>>satisfied with the contacts achieved considering the fact I used a
>>barefoot K2 at around 10 watts o/p and the antenna was sat on the
>>shack bench connected to the K2 by a 1 metre BNC to BNC cable laid
>>across the bench. (I only mention this last to try and forestall the
>>inevitable comment that the feeder does all the work)
>> All of this was done out of interest just to see if the antenna
>>worked at all, as my gut reaction was, and still is, sceptical
>>regarding the claims of its method of operation. I am not a
>>mathematician, so the various lengthy discussions regarding Maxwell's
>>equations et al pass me by; I am more interested in the practical
>>aspects of this rather than the theory. My question refers to the
>>SWR bandwidth achieved using this system. For an electrically very
>>short antenna of this type I expected something extremely sharp at
>>resonance, perhaps in the order of 5 or 10 KHz between the 2:1 SWR
>>points. In practice, the 2:1 SWR points are some 100 KHz or so
>>apart. When fed with 100 watts from an IC706, the antenna itself
>>does not get warm and neither does the short feeder so it doesn't
>>appear to be acting as a dummy load. Can someone satisfy my
>>curiosity and tell me (drawing comparisons with springs and dampers if
>>need be:-) how this is achieved.
>> Thanks,
>> Trev G3ZYY
>>
>
>Sigh.
>
>A couple of questions:
>
>1. Have you tried using something like a loop or other non-magical
>antenna of similar physical size for comparison? Or putting a 20 dB pad
>between your rig and a decent antenna? Most people are amazed at how
>much they can do with 100 mW.
>2. I assume you're using a "phasing network" or some similar device to

>achieve whatever it is the antenna is supposed to accomplish. The wide
>bandwidth is a sure sign of loss, and the majority of it is just about
>surely in the "phasing network" and/or whatever matching network you're
>using. Have you checked to see if either of them is getting warm after
>a few minutes of key-down (with breaks to ID of course)?
>
>But don't be surprised it they don't. If you're running 100 watts of
>CW, your average power output is probably no more than 20 watts while
>transmitting. If you're running SSB, it's considerably less than that
>unless you're using serious compression. Try running your rig normally
>(keying or talking) to a good-sized dummy load and see how long it
>takes for it to get noticeably warm. Then imagine it to be the size of
>your matching/"phasing" network and think about what you'd expect to
>happen if it were absorbing *all* your transmitter's power. It is,
>after all, absorbing most of it.
>
>Roy Lewallen, W7EL

Roy,

I think you got as far as my first paragraph and didn't read any
further.

I am not attempting to justify this antenna or the way it works, just
trying to get an explanation for one aspect of it. If you had read what
I had written you would have seen the answer to your questions above.

Is it possible to 'mismatch', for want of a better expression, a loop to
achieve an equivalent bandwidth? I have constructed many short
verticals for portable and mobile use over the years, but have always
experienced narrow bandwidth. It is this aspect of the 'EH' that I
would like to understand.

btw, starting your answer with "Sigh" might be justified if I appeared
to be ignoring your continued advice but surely not at first meeting?

Trev G3ZYY
--
Trevor Day
UKSMG #217
www.uksmg.org

2591. Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 10:11:41 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <xBrAe.12737$zY4.8356@tornado.ohiordc.rr.com>
Source record: 73557

To all the fellas who eschew anonymity, embrace civility, keep humor dry and non-anatomical, occasionally expose the anon nitwits and their nitwit-eries ... and who post interesting stuff here.

73, Dave, N3HE
Cincinnati OH

2592. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 10:12:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d4hh5mp525k82@corp.supernews.com>
Source record: 73558

You'll also get that message if DFORRT.dll (which EZWf14.dll needs) is missing, defective, or in a place where EZWf14.dll can't find it, or if EZWf14.dll isn't functioning for any other reason. It also needs MSVCRT.dll, but I don't think Windows will function without that one.

If I were you I'd track down why you're not seeing EZWf14.dll with Windows Explorer. It's a common type of dll, similar to Windows system dlls, and there's no reason it should be hidden.

Roy Lewallen, W7EL

Bob Nielsen wrote:
> Has anyone been able to get Eznec to run in Win4Lin (an emulator for
> running Windows as a Linux application)? I get the startup screen, but
> then an error window pops up saying EZWf14.DLL is missing. It is in the
> C:\Program Files/ezw directory (although Windows Explorer does not show it
> either). It works fine running Windows 98SE natively.
>
> Bob, N7XY

2593. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 10:30:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dathnf$g3c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73559
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Trev,
Performance is no better and no worse than what can be expected from any other sort of antenna of about the same physical size and the same length of feedline. Try it and see.

I once worked 3 miles on SSB, on 160m, in broad daylight, with about 10 milliwatts, on 8 feet of wire lying on the ground, thrown out of a downstairs window. The ground connection was via 10 feet of wire from a domestic gas pipe. But I don't brag about it. The credit all goes to Clerk Maxwell.

As Clerk implied, any bloody thing works.

Reg.

==========
.
"Trevor Day" <Trev@secornwall.removethis.com> wrote in message news:2OkFDdCGOj0CFwl3@secornwall.com...
> In message <SFjAe.18552$x82.10049@fe03.lga>, Walter Maxwell
> <walt@w2du.com> writes
> snip
> >Just try to imagine what you bloody 'ole Brits could have accomplished
> >around 1200 if you'd only had the tremendously high voltages achieved in the
> >near field of a CFA antenna to hurl at the enemy.
> >
> >Walt
>
> Excuse me for 'jumping in' here, it was difficult trying to locate a bit
> of the thread that referred to the current title (CFA) I would like to
> ask you learned chaps a question about the 'EH' antenna which I
> appreciate is not the same as the CFA but its near enough for me:-)
>
> I have built a couple of these and used them on 40m. Performance hasn't
> been brilliant but they have worked and I was reasonably satisfied with
> the contacts achieved considering the fact I used a barefoot K2 at
> around 10 watts o/p and the antenna was sat on the shack bench connected

> to the K2 by a 1 metre BNC to BNC cable laid across the bench. (I
only
> mention this last to try and forestall the inevitable comment that
the
> feeder does all the work)
>
> All of this was done out of interest just to see if the antenna
worked
> at all, as my gut reaction was, and still is, sceptical regarding
the
> claims of its method of operation. I am not a mathematician, so the
> various lengthy discussions regarding Maxwell's equations et al pass
me
> by; I am more interested in the practical aspects of this rather
than
> the theory. My question refers to the SWR bandwidth achieved using
this
> system. For an electrically very short antenna of this type I
expected
> something extremely sharp at resonance, perhaps in the order of 5 or
10
> KHz between the 2:1 SWR points. In practice, the 2:1 SWR points are
> some 100 KHz or so apart. When fed with 100 watts from an IC706,
the
> antenna itself does not get warm and neither does the short feeder
so it
> doesn't appear to be acting as a dummy load. Can someone satisfy
my
> curiosity and tell me (drawing comparisons with springs and dampers
if
> need be:-) how this is achieved.
>
> Thanks,
> Trev G3ZYY
>
> --
> Trevor Day
> UKSMG #217
> www.uksmg.org

2594. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 10:47:55 UTC
From: Trevor Day <Trev@secornwall.removethis.com>
Message-ID: <SIjsykHa0k0CFwRh@secornwall.com>
Source record: 73560
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In message <dathnf$g3c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, Reg Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>Trev,
>Performance is no better and no worse than what can be expected from
>any other sort of antenna of about the same physical size and the same
>length of feedline. Try it and see.
>
>I once worked 3 miles on SSB, on 160m, in broad daylight, with about
>10 milliwatts, on 8 feet of wire lying on the ground, thrown out of a
>downstairs window. The ground connection was via 10 feet of wire from
>a domestic gas pipe. But I don't brag about it. The credit all goes
>to Clerk Maxwell.
>
>As Clerk implied, any bloody thing works.
>----
>Reg.

Thanks Reg,

I expect you are quite right, but I am still puzzled about the bandwidth aspect. Roy states that this is due to losses in the matching system, in which case would it be possible to 'detune' a similar small antenna and get similar results in that regard. If I can actually do that and see the result, then I will be happy :-)

Trev
--
Trevor Day
UKSMG #217
www.uksmg.org

2595. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 11:31:53 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <IJGo15.5KM@bath.ac.uk>
Source record: 73561

Trevor Day wrote:

> In message <dathnf$g3c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, Reg
> Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>
>> Trev,
>> Performance is no better and no worse than what can be expected from
>> any other sort of antenna of about the same physical size and the same
>> length of feedline. Try it and see.
>>
>> I once worked 3 miles on SSB, on 160m, in broad daylight, with about
>> 10 milliwatts, on 8 feet of wire lying on the ground, thrown out of a
>> downstairs window. The ground connection was via 10 feet of wire from
>> a domestic gas pipe. But I don't brag about it. The credit all goes
>> to Clerk Maxwell.
>>
>> As Clerk implied, any bloody thing works.
>> ----
>> Reg.
>
>
> Thanks Reg,
>
> I expect you are quite right, but I am still puzzled about the bandwidth
> aspect. Roy states that this is due to losses in the matching system,
> in which case would it be possible to 'detune' a similar small antenna
> and get similar results in that regard. If I can actually do that and
> see the result, then I will be happy :-)
>
> Trev

Try running it it parallel with a suitable resistive load. You will see
increased 'bandwidth', i.e. the SWR will be lower over a greater
frequency range. If you eliminate the aerial altogether then the 'bandwidth'
will cover frequencies up to several GHz with a good quality load ;-)

I have actually worked a local amateur dummy load to dummy load. Both
loads were good quality (one Bird, one Marconi) and all the cabling was
short and good quality coax. Leakage was probably less than a few milliwatts.
The rigs had different IFs so it probably was the signal frequency we were
hearing. Being able to work stations is no measure of antenna efficiency.

Heating is not a good way of determining efficiency unless you do real
calorimetry. I've tried 100W CW key down into a real 100W continuous load
(not one of the Made From Junk ones, which are grossly overrated), for

ten minutes and the temperature increase was just discernible, it certainly didn't get hot.

vy 73

Andy, M1EBV

vy 73

Andy, M1EBV

2596. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 11:52:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d4nbka4e24idd@corp.supernews.com>
Source record: 73562
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Trevor Day wrote:
>
> Roy,
>
> I think you got as far as my first paragraph and didn't read any further.
>
> I am not attempting to justify this antenna or the way it works, just
> trying to get an explanation for one aspect of it. If you had read what
> I had written you would have seen the answer to your questions above.
>
> Is it possible to 'mismatch', for want of a better expression, a loop to
> achieve an equivalent bandwidth?

Yes. Put a resistor in series or parallel with it, or put a pad (attenuator) between it and your rig. When you find the value that gets you the bandwidth of the CFA, you'll also have about the same efficiency. The power will be going into the resistor instead of into the "phasing" and/or matching networks.

I have constructed many short
> verticals for portable and mobile use over the years, but have always
> experienced narrow bandwidth. It is this aspect of the 'EH' that I
> would like to understand.

It's loss, plain and simple.

> btw, starting your answer with "Sigh" might be justified if I appeared
> to be ignoring your continued advice but surely not at first meeting?

Sort of. You apparently didn't check groups.google.com to see the great mass of postings I and others have made about those antennas, many times before. A tremendous amount has been written and posted about the CFA and EH antennas. But like astrology, homeopathy, and other hoaxes, no amount of objective evidence keeps people from wanting to believe. Either they don't search it out, they're not able to evaluate it when they find it, or they choose to ignore it when it threatens their beliefs. It's resigning myself to that sad certainty and the Sisyphusian (Sisyphusan?) task of combatting it which makes me sigh.

Roy Lewallen, W7EL

2597. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 12:29:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <datonsiih1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73563
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Trev,

As Cecil says, a wider than expected bandwidth in an antenna of given size, is an absolutely sure sign of greater loss somewhere in the wideband antenna system.

Unless one knows how the thing is supposed to work, which with EH and CFA is not very likely, there's no indication of where the loss may be except from a visual examination. If there are any coils of relatively thin wire, either in the antenna or tuner/phaser, then that's a good pointer.

But experimenting to improve the bandwidth*efficiency product, one way or the other, will not get you very far. As one goes up the other is sure to go down. It's not difficult to guess which you would prefer.

A magloop. with a single turn coil of copper pipe at the lower frequencies, is far and away the most narrow banded and therefore the most efficient of all the small antennas. Furthermore it has a built-in, equally very low loss tuner.

Reg.

==========

"Trevor Day" <Trev@secornwall.removethis.com> wrote in message news:SIjsykHa0k0CFwRh@secornwall.com...
> In message <dathnf$g3c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, Reg
> Edwards <g4fgq.regp@ZZZbtinternet.com> writes
> >Trev,
> >Performance is no better and no worse than what can be expected
from
> >any other sort of antenna of about the same physical size and the
same
> >length of feedline. Try it and see.
> >
> >I once worked 3 miles on SSB, on 160m, in broad daylight, with
about
> >10 milliwatts, on 8 feet of wire lying on the ground, thrown out of
a
> >downstairs window. The ground connection was via 10 feet of wire
from
> >a domestic gas pipe. But I don't brag about it. The credit all
goes
> >to Clerk Maxwell.

> >
> >As Clerk implied, any bloody thing works.
> >----
> >Reg.
>
> Thanks Reg,
>
> I expect you are quite right, but I am still puzzled about the
bandwidth
> aspect. Roy states that this is due to losses in the matching
system,
> in which case would it be possible to 'detune' a similar small
antenna
> and get similar results in that regard. If I can actually do that
and
> see the result, then I will be happy :-)
>
> Trev
> --
> Trevor Day
> UKSMG #217
> www.uksmg.org

2598. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 12:51:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <datq09$a2n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73564

Being able to work stations is no measure of antenna efficiency.
>
What then, is the true relationship which affects the ability to work
stations.

2599. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 13:28:30 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d4sv79jg9be05@corp.supernews.com>
Source record: 73565
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Dear Roy:
I am in complete agreement. As an example, when dealing with antenna tower evaluation I convert everything about the tower to SI (knowing the approximate SI density of materials helps to ensure that the conversion was done correctly), and then do the evaluation. When it comes to the design of foundations, I need to convert the SI answer back into the other units so that the skilled trades are able to do their thing.

How silly to have a system that depends on an assumed gravitational system.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11d3vlnqak8tu73@corp.supernews.com...
> Years ago I tracked down a constriction ("resistance") in my house's
> water system with a bucket and stopwatch to measure flow ("current") and
> a fuel pump pressure gauge to measure water pressure ("voltage") and a
> schematic of the "circuit". I kind of chuckled thinking of all the
> simplified explanations of electricity using water -- I found it much
> easier to convert in the other direction.
>
> As for "pounds", I was always off by the acceleration of gravity squared
> in the only two one-semester courses I took which weren't metric,
> Statics and Dynamics. I never could remember which of those units --
> pounds mass, pounds force, poundals, slugs, aargh, had the acceleration
> already built in and which didn't. I finally managed by first converting
> each problem to metric, solving it, then converting the result back to
> that God-awful system of units.
>
> Roy Lewallen, W7EL
>

2600. Re: Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 13:33:44 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11d4t91f872aucd@corp.supernews.com>
Source record: 73566

Dear John:
Thank you. I understand even more about "A." Is it correct to assume
that the metallic part of "A" is aluminum?

Thank you also for your first estimate of the ID needed to enclose the
whole antenna. That is of great help.

73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"John Gotwals" <john@gotwals.xremovey.com> wrote in message
news:daslifldg1@mailhub227.itcs.purdue.edu...
> A plastic rod has been partially inserted into tube A (to a depth of
perhaps
> 6") at the end which is above ground. Tube A and the rod have been drilled
> at right angles to their axes of symmetry, and a screw has been inserted
> into the hole, and where the screw protrudes on the opposite side of tube
A,
> a nut has been attached and tightened. When the antenna is constructed,
this
> screw will serve as the junction for one end of a base matching coil (Coil
> Q) and for the shield from a short length of 75? matching coax (Coax R).
>
> The instructions state that tube A can be placed in concrete, but they
> recommend slightly twisting tube A, while the concrete is setting, for
easy
> removal later.
>
> The manual states "in areas of frequent or heavy winds a set of short
> non-conductive guys should be used to reduce the stresses that wind
loading
> will impart to the lower sections of the antenna."
>
> As a first estimate, your friends cylindrical radome will have to have a
> diameter of at least 6", but I'll know more in a few days.
>
> John, N9JG
>

2601. Re: Butternut HF6V mounting tube with SS radial plate

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 14:09:06 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <datui2$7n6$1@mailhub227.itcs.purdue.edu>
Source record: 73567

Yes, the metallic portion of tube A is aluminum.

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11d4t91f872aucd@corp.supernews.com...
> Dear John:
> Thank you. I understand even more about "A." Is it correct to assume
> that the metallic part of "A" is aluminum?
>
>
> Thank you also for your first estimate of the ID needed to enclose the
> whole antenna. That is of great help.
>
> 73, Mac N8TT
> --

2602. Re: Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 14:10:10 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <datuk1lni2@f04n12.cac.psu.edu>
Source record: 73568

David J Windisch wrote:

> To all the fellas who eschew anonymity, embrace civility, keep humor dry and
> non-anatomical, occasionally expose the anon nitwits and their nitwit-eries
> ... and who post interesting stuff here.
>
> 73, Dave, N3HE
> Cincinnati OH

Hear, hear! This should be posted in more groups!

- Mike KB3EIA -

2603. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 14:14:35 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <8avAe.19439$x82.1129@fe03.lga>
Source record: 73569
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Trevor Day" <Trev@secornwall.removethis.com> wrote in message
news:SIjsykHa0k0CFwRh@secornwall.com...
> In message <dathnf$g3c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, Reg
> Edwards <g4fgq.regp@ZZZbtinternet.com> writes
> >Trev,
> >Performance is no better and no worse than what can be expected from
> >any other sort of antenna of about the same physical size and the same
> >length of feedline. Try it and see.
> >
> >I once worked 3 miles on SSB, on 160m, in broad daylight, with about
> >10 milliwatts, on 8 feet of wire lying on the ground, thrown out of a
> >downstairs window. The ground connection was via 10 feet of wire from
> >a domestic gas pipe. But I don't brag about it. The credit all goes
> >to Clerk Maxwell.
> >
> >As Clerk implied, any bloody thing works.
> >----
> >Reg.
You want QRP, Trev, I'll give you QRP. The telemetry transmitters used on
the early TIROS weather satellites delivered only 10 milliwatts, yet they
produced an S9 signal at a 400 mile high orbit at maximum slant range of
1800 miles to the horizon.

I don't know about other TV satellites, but the RCA Satcoms of the late
70s and early 80s used transmitters that delivered only 5 watts at an
altitude of 23,000 miles. (I will have to admit, however, that 5 watts into
its 30 dB dish produced an EIRP of 5 kw.)

Walt, W2DU

2604. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 16:07:52 UTC
From: Jochen Schaeuble <psionic.nospam@psionic.de>
Message-ID: <op.strazydqx43lc3@localhost>
Source record: 73570

Hi,
I'm running EZNEC using Wine (Codeweaver Office version) as well as
VMWare. Everything works fine here. Have you tried using Wine instead of
Win4Lin? If I remember correct than Win4Lin is a virtual machine just like
VMWare. Is this correct?

vy 73 de Jochen, DG1PSI

On Mon, 11 Jul 2005 08:08:17 +0200, Bob Nielsen
<nielsen@removethis.oz.net> wrote:

> Has anyone been able to get Eznec to run in Win4Lin (an emulator for
> running Windows as a Linux application)? I get the startup screen, but
> then an error window pops up saying EZWf14.DLL is missing. It is in the
> C:\Program Files/ezw directory (although Windows Explorer does not show
> it
> either). It works fine running Windows 98SE natively.
>
> Bob, N7XY

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

2605. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 16:42:28 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <UjxAe.127760$tt5.65355@edtnps90>
Source record: 73571
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Spike" <Aero.Spike@Technologies.invalid> wrote in message
news:9j64d1hm1pe9dm84rm2t455fo784uo9r5g@4ax.com...
> Frank wrote:
>
>>The spring and damper can be exactly model as an electrical analog;
>
> I'm sure you're right.
>
> However, a coil/capacitor is not a model or analogue of a
> spring/damper system. It was discussed extensively at the time.
>
> from
> Aero Spike

I am not sure I understand your response. To be exact a "spring/damper" can be modeled as a coil/resistor. For resonance to occur you need a capacitor/inductor, or mass/spring. All components of either mechanical or electrical circuits require the solution of the same simple differential equation, such as i = C*dv/dt etc.

Regards,

Frank

2606. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 16:52:25 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <he85d1d297vr12kakburp11dgsp0856psl@4ax.com>
Source record: 73572
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 10 Jul 2005 23:46:13 +0100, "Gerard Lynch"
<gerrylynch@freenetname.co.uk> wrote:

>
[snip]
>Guns aren't an issue here. We're not allowed to have them. Nobody much (as
>in about 90% of the population) cares. We care about things you folks have
>never even heard about instead (fancy an ID card?)

Over here in 'Merica they're called "Social Security Cards." Every
newborn baby is required to have one.

2607. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 17:44:27 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42d2b05b_1@newsfeed.slurp.net>
Source record: 73573
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Reg Edwards"
> As Cecil says, a wider than expected bandwidth in an antenna of given
> size, is an absolutely sure sign of greater loss somewhere in the
> wideband antenna system.

I don't know your definition of an "expected bandwidth," but for a reality check--many forms of panel antennas used in FM and TV broadcast transmission have 20% or better SWR bandwidth, and radiate nearly every watt that can be delivered by the feedline with almost NO "matching" losses. They have been in routine use for decades at master antenna transmit sites all over the world.

RF

Visit http://rfry.org for FM transmission system papers.

2608. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 17:46:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d2b175$1_1@spool9-west.superfeed.net>
Source record: 73574
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Wes Stewart wrote:
> Over here in 'Merica they're called "Social Security Cards." Every
> newborn baby is required to have one.

But the illegal aliens can get their GED without one.
They are issued a non-SS tracking number instead of SS#.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2609. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 17:47:02 UTC
From: Trevor Day <Trev@secornwall.removethis.com>
Message-ID: <2lh1ZgOQBr0CFwH4@secornwall.com>
Source record: 73475
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In message <datonsiih1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>, Reg Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>Trev,
>
>As Cecil says, a wider than expected bandwidth in an antenna of given
>size, is an absolutely sure sign of greater loss somewhere in the
>wideband antenna system.
>
>Unless one knows how the thing is supposed to work, which with EH and
>CFA is not very likely, there's no indication of where the loss may be
>except from a visual examination. If there are any coils of
>relatively thin wire, either in the antenna or tuner/phaser, then
>that's a good pointer.
>
>But experimenting to improve the bandwidth*efficiency product, one way
>or the other, will not get you very far. As one goes up the other is
>sure to go down. It's not difficult to guess which you would prefer.
>
>A magloop. with a single turn coil of copper pipe at the lower
>frequencies, is far and away the most narrow banded and therefore the
>most efficient of all the small antennas. Furthermore it has a
>built-in, equally very low loss tuner.
>----
>Reg.

Thanks for your time Reg,
I drafted a lengthy response to your note above a little earlier but binned it in favour of this :-) I suppose my problem is that I would dearly like to believe the claims for the EH et al but my head tells me that it can't be so. I have had a lot of fun 'playing' with the idea and I suppose I should be happy with that.

Trev

--
Trevor Day
UKSMG #217
www.uksmg.org

2610. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 17:48:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d2b1e3$1_1@spool9-west.superfeed.net>
Source record: 73476
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard Fry wrote:

> "Reg Edwards"
>> As Cecil says, a wider than expected bandwidth in an antenna of given
>> size, is an absolutely sure sign of greater loss somewhere in the
>> wideband antenna system.
>
> I don't know your definition of an "expected bandwidth," but for a
> reality check--many forms of panel antennas used in FM and TV broadcast
> transmission have 20% or better SWR bandwidth, and radiate nearly every
> watt that can be delivered by the feedline with almost NO "matching"
> losses. They have been in routine use for decades at master antenna
> transmit sites all over the world.

And, for the record, it wasn't me who said that.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2611. AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 17:49:26 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5c9ls4rt5p7c@news.supernews.com>
Source record: 73477
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

In all honesty to those that ridiculed the tower and it's associated riggings etc...I have posted photos of the damage incurred from the category 4 hurricane Dennis. I never expected this kind of result...live and learn I suppose. Here is the direct link..

1. http://deepsouthnet.net/storm_damage.html

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

2612. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 17:51:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <daubia$1de$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73478
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

So ?

2613. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:08:49 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11d5ddkek1b715f@corp.supernews.com>
Source record: 73479
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:
> In all honesty to those that ridiculed the tower and it's associated
> riggings etc...I have posted photos of the damage incurred from the category
> 4 hurricane Dennis. I never expected this kind of result...live and learn I
> suppose. Here is the direct link..
>
> 1. http://deepsouthnet.net/storm_damage.html
>

Your point would have been better if you had used actual before and
after pictures. If you check the name on each picture you will find that
they are the same exact file. Nice try...

Dave N

2614. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:13:20 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <k3d5d1h27evdolhtmi8b1t4k5dhudbtdg5@4ax.com>
Source record: 73480
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank wrote:

>"Spike" <Aero.Spike@Technologies.invalid> wrote in message
>news:9j64d1hm1pe9dm84rm2t455fo784uo9r5g@4ax.com...
>> Frank wrote:
>>
>>>The spring and damper can be exactly model as an electrical analog;
>>
>> I'm sure you're right.
>>
>> However, a coil/capacitor is not a model or analogue of a
>> spring/damper system. It was discussed extensively at the time.
>>
>
>I am not sure I understand your response. To be exact a "spring/damper" can
>be modeled as a coil/resistor.

I refer you my other post on the subject, where I quote the OP in
full.

>For resonance to occur you need a
>capacitor/inductor, or mass/spring. All components of either mechanical or
>electrical circuits require the solution of the same simple differential
>equation, such as i = C*dv/dt etc.

No-one was arguing that that was not the case. A spring might have the
mechanical equivalent of reactance, but a damper will most certainly
not - hence the rubbish posted by the OP, where he believes that
dampers store energy. They do not, and therefore cannot have the
mechanical equivalence of a reactance. Therefore, resonance is not
possible with such a system. In the extreme, the OP was reduced to
likening dampers to bicycle pumps, a sure sign of a failure to grasp a
fundamental point (and hence the error of his assertion).

from
Aero Spike

2615. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:25:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d5ecif839d33f@corp.supernews.com>
Source record: 73481
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard Fry wrote:
>
> I don't know your definition of an "expected bandwidth," but for a
> reality check--many forms of panel antennas used in FM and TV broadcast
> transmission have 20% or better SWR bandwidth, and radiate nearly every
> watt that can be delivered by the feedline with almost NO "matching"
> losses. They have been in routine use for decades at master antenna
> transmit sites all over the world.

Now shrink down those antennas by a factor of, say, 10 in size. Think they'd still do it? If so, you're the natural prey for the charlatans.

In product development, we say fast-cheap-good, pick any two. With antennas it's small-efficient-broadband, pick any two. "Small" is, of course, always in terms of wavelength when it comes to antennas.

Roy Lewallen, W7EL

2616. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:35:01 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.strhwnv5cdad2j@laptop1>
Source record: 73482

On Mon, 11 Jul 2005 02:08:17 -0400, Bob Nielsen
<nielsen@removethis.oz.net> wrote:

> Has anyone been able to get Eznec to run in Win4Lin (an emulator for
> running Windows as a Linux application)? I get the startup screen, but
> then an error window pops up saying EZWf14.DLL is missing. It is in the
> C:\Program Files/ezw directory (although Windows Explorer does not show
> it
> either). It works fine running Windows 98SE natively.
>
> Bob, N7XY

Hi Bob,
Eznec works fine here in wine.. give it a try .
73 Dave kc1di

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

2617. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:38:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dauec1$k6d$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73483
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Richard Fry" <rfry@adams.net> wrote in message
news:42d2b05b_1@newsfeed.slurp.net...
> "Reg Edwards"
> > As Cecil says, a wider than expected bandwidth in an antenna of
given
> > size, is an absolutely sure sign of greater loss somewhere in the
> > wideband antenna system.
> _________________
>
> I don't know your definition of an "expected bandwidth," but for a
reality
> check--many forms of panel antennas used in FM and TV broadcast
transmission
> have 20% or better SWR bandwidth, and radiate nearly every watt that
can be
> delivered by the feedline with almost NO "matching" losses. They
have been
> in routine use for decades at master antenna transmit sites all over
the
> world.
>
> RF
==================================

I've no reason to doubt it.

But this is a topic about the bandwidth of physically small HF
antennas.

And as usual, when the slightest difference of opinion occurs,
somebody invariably feels impelled to go off at a tangent and drag in
something they feel more at home with, such as VHF and UHF TV
transmitting antennas, and, very soon, if we are not careful,
distractions such as scattering parameters, reflected power, etc.

Reg

2618. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:54:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dauf9j$b49$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73484
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Roy Lewallen" wrote -
> Now shrink down those antennas by a factor of, say, 10 in size.
Think
> they'd still do it? If so, you're the natural prey for the
charlatans.
>
==========

Roy, I'm thinking of occasionally changing 'old wives' to
'charlatans'. It may sometimes better fit the circumstances.

Reg.

2619. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 18:58:50 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5gbpnl960keb@news.supernews.com>
Source record: 73485
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

The images are the same yeah...DUH!!
Since there was no damage.....except perhaps your brain damage.
You don't catch on too fast do you?

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"David G. Nagel" <nagel@core.com> wrote in message
news:11d5ddkek1b715f@corp.supernews.com...
> Charlie wrote:
>> In all honesty to those that ridiculed the tower and it's associated
>> riggings etc...I have posted photos of the damage incurred from the
>> category 4 hurricane Dennis. I never expected this kind of result...live
>> and learn I suppose. Here is the direct link..
>>
>> 1. http://deepsouthnet.net/storm_damage.html
>>
>
>
> Your point would have been better if you had used actual before and after
> pictures. If you check the name on each picture you will find that they
> are the same exact file. Nice try...
>
> Dave N

2620. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:04:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <daufrb$8c3$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73487
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Cecil Moore" said,

> And, for the record, it wasn't me who said that.
> ==================================

As it was quite true you just as well could have said it. So I didn't
take the trouble to correct the minor error.

Sorry Roy.
===
Reg.

2621. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:05:12 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <8mg5d1l7jl9645i6nc1m0maj8ii1n4gvrb@4ax.com>
Source record: 73486
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 13:08:49 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>Charlie wrote:
>> In all honesty to those that ridiculed the tower and it's associated
>> riggings etc...I have posted photos of the damage incurred from the category
>> 4 hurricane Dennis. I never expected this kind of result...live and learn I
>> suppose. Here is the direct link..
>>
>> 1. http://deepsouthnet.net/storm_damage.html
>>
>
>
>Your point would have been better if you had used actual before and
>after pictures. If you check the name on each picture you will find that
>they are the same exact file. Nice try...
>
>Dave N

Not sure what Charlie's point is -- the Dennis hurricane historical
map doesn't show it anywhere close to Union, Mississippi...

bob
k5qwg

2622. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:24:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dauh1dfmp1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73488
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

> Ever heard of a diversity receiver?

==========

You seem to enjoy starting useless arguments.
Are you a troll?
Spacial or frequency diversity?
Leave me out of it.

Reg.

2623. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:28:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a3b4f$42d2c87e$97d55c31$19268@ALLTEL.NET>
Source record: 73489
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

While the after picture may represent the condition of your tower after the storm, it is NOT an after picture. Why the false representation?

"Charlie" <charlie@earthlink.net> wrote in message news:11d5c9ls4rt5p7c@news.supernews.com...
> In all honesty to those that ridiculed the tower and it's associated
> riggings etc...I have posted photos of the damage incurred from the category
> 4 hurricane Dennis. I never expected this kind of result...live and learn I
> suppose. Here is the direct link..
>
> 1. http://deepsouthnet.net/storm_damage.html
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>
>

2624. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:33:33 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <hQzAe.127784$tt5.42805@edtnps90>
Source record: 73490
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

>>For resonance to occur you need a
>>capacitor/inductor, or mass/spring. All components of either mechanical
>>or
>>electrical circuits require the solution of the same simple differential
>>equation, such as i = C*dv/dt etc.
>
> No-one was arguing that that was not the case. A spring might have the
> mechanical equivalent of reactance, but a damper will most certainly
> not - hence the rubbish posted by the OP, where he believes that
> dampers store energy. They do not, and therefore cannot have the
> mechanical equivalence of a reactance. Therefore, resonance is not
> possible with such a system. In the extreme, the OP was reduced to
> likening dampers to bicycle pumps, a sure sign of a failure to grasp a
> fundamental point (and hence the error of his assertion).
>
> from
> Aero Spike

I am not aware of a damper ever being considered a storage device.
Capacitance is equivalent to mass, Inductance is equivalent to a spring, and
resistance equivalent to a damper. Am I missing something?

Anyway will read later posts and see what I can get out of it.

Frank

2625. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:35:57 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5ihah26vq99f@news.supernews.com>
Source record: 73491
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Because the images are virtually the same..even if I stepped outside and
shot a "true after" picture it would be the same image.

Sorry to disappoint all you guys but there was no damage here.....as all but
a very few "tower experts" predicted.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:a3b4f$42d2c87e$97d55c31$19268@ALLTEL.NET...
> While the after picture may represent the condition of your tower after
> the
> storm, it is NOT an after picture. Why the false representation?
>
> "Charlie" <charlie@earthlink.net> wrote in message
> news:11d5c9ls4rt5p7c@news.supernews.com...
>> In all honesty to those that ridiculed the tower and it's associated
>> riggings etc...I have posted photos of the damage incurred from the
> category
>> 4 hurricane Dennis. I never expected this kind of result...live and learn
> I
>> suppose. Here is the direct link..
>>
>> 1. http://deepsouthnet.net/storm_damage.html
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>>
>>
>>
>>
>>
>>

>
>

2626. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:37:57 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5il29agtucee@news.supernews.com>
Source record: 73492
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

That's crap John....provide a link that shows the track "nowhere near". We were under a Inland Hurricane" warning from 5PM last night. Maybe your cartographer skills are a little rusty.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:8mg5d1l7jl9645i6nc1m0maj8ii1n4gvrb@4ax.com...
> On Mon, 11 Jul 2005 13:08:49 -0500, "David G. Nagel" <nagel@core.com>
> wrote:
>
>>Charlie wrote:
>>> In all honesty to those that ridiculed the tower and it's associated
>>> riggings etc...I have posted photos of the damage incurred from the
>>> category
>>> 4 hurricane Dennis. I never expected this kind of result...live and
>>> learn I
>>> suppose. Here is the direct link..
>>>
>>> 1. http://deepsouthnet.net/storm_damage.html
>>>
>>
>>
>>Your point would have been better if you had used actual before and
>>after pictures. If you check the name on each picture you will find that
>>they are the same exact file. Nice try...
>>
>>Dave N
>
> Not sure what Charlie's point is -- the Dennis hurricane historical
> map doesn't show it anywhere close to Union, Mississippi...
>
> bob
> k5qwg
>
>

2627. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:40:15 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <zWzAe.127785$tt5.34964@edtnps90>
Source record: 73493
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

> No-one was arguing that that was not the case. A spring might have the
> mechanical equivalent of reactance, but a damper will most certainly
> not - hence the rubbish posted by the OP, where he believes that
> dampers store energy. They do not, and therefore cannot have the
> mechanical equivalence of a reactance. Therefore, resonance is not
> possible with such a system. In the extreme, the OP was reduced to
> likening dampers to bicycle pumps, a sure sign of a failure to grasp a
> fundamental point (and hence the error of his assertion).
>
> from
> Aero Spike

Is this what you are talking about?

"The same analogy applies to springs and to shock absorbers;
the spring stores energy when stretched; the shock-absorber
stores energy when compressed. Both the spring and shock
absorber will return energy at some time and this exhibit reactance!"

I think we have been at cross purposes. The above is nonsense.

Frank

2628. Re: A car with 6 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:42:15 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-DD8E55.11424011072005@netnews.att.net>
Source record: 73494

In article <PvYze.17875$x82.12391@fe03.lga>,
"Walter Maxwell" <walt@w2du.com> wrote:

> Riley wouldn't hide behind 'me'.
>
> Walt
>

Oh I don't know about that, I am a fairly LARGE guy....and Riley
might be able to hide behind "Me"......

Me

2629. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:46:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <d2j5d1p42ijbbk42io91f809mhb7mig37e@4ax.com>
Source record: 73495
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 14:37:57 -0500, "Charlie" <charlie@earthlink.net>
wrote:

>That's crap John....provide a link that shows the track "nowhere near". We
>were under a Inland Hurricane" warning from 5PM last night. Maybe your
>cartographer skills are a little rusty.

Looks like it was hitting Mississippi up around Columbus, and heading
North from you...

How high did your winds get ... in Union?

http://www.wunderground.com/tropical/tracking/at200504.html

bob
k5qwg

2630. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:51:11 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <P4AAe.21544$bh1.20211@newsfe1-gui.ntli.net>
Source record: 73496
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Beanie's bum chum <Nedlar wrote:
>
> This guy, being a brave keyboard warrior, likes to call people idiots.
> However, when confronted by children he acts like the coward he is.
> I append a short article of his when he was posting as 'RVMJ'
>
>
>>On Sat, 28 Feb 2004 14:04:36 +0000, RVMJ 99g <Me@privacy.net> wrote:
>>
>>
>>>Having been assaulted by two 'young people' in the garage at the back
>>>of my house, during which (being aware of the issues) I neither
>>>reacted or retaliated, I count myself lucky that they didn't concoct a
>>>story about the reverse being true. There were were no independent
>>>witnesses, and so their uncorroborated word as 'young people' would
>>>have been accepted without question, as is the normal practice.
>>>
>>>As they never surfaced before 10:30 on weekend mornings, I made sure
>>>that any outside work I wanted to do, such as car servicing or
>>>gardening, was done before that time, at which point I made myself
>>>scarce. Taking leave and doing jobs during the week wasn't on, as one
>>>couldn't guarantee that they wouldn't bunk off from school.
>>>
>>>As they used to congregate in the area of the garages, it meant I
>>>could never use my motorcycle without risking being accosted by them
>>>on my return, as there was no way of seeing if they were present. So
>>>for a year or two, until they discovered the world outside the area
>>>contained people of the opposite gender, I was a prisoner in my own
>>>house. Again, I count myself lucky that they only scratched my car
>>>four times, broke five radio aerials and two door mirrors, rendered
>>>the door-locks inoperative with matchsticks and slashed the tyres
>>>once. Young people need protection, did you say?
Well done! You've mastered the art of cut & paste.
What's next, a black belt in Origami?
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

2631. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 19:52:11 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5jfk6llsevec@news.supernews.com>
Source record: 73497
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Bob,
The storm was not a pinpoint single line width across the map but over 3 0 0 m i l e s wide. I did not measure the "winds in Union". If they were not high enough for you then maybe better luck next time.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:d2j5d1p42ijbbk42io91f809mhb7mig37e@4ax.com...
> On Mon, 11 Jul 2005 14:37:57 -0500, "Charlie" <charlie@earthlink.net>
> wrote:
>
>>That's crap John....provide a link that shows the track "nowhere near". We
>>were under a Inland Hurricane" warning from 5PM last night. Maybe your
>>cartographer skills are a little rusty.
>
> Looks like it was hitting Mississippi up around Columbus, and heading
> North from you...
>
> How high did your winds get ... in Union?
>
> http://www.wunderground.com/tropical/tracking/at200504.html
>
> bob
> k5qwg
>
>

2632. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:07:44 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <4uj5d111ebenscmhd8seur1qm9geantdmu@4ax.com>
Source record: 73498
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 14:52:11 -0500, "Charlie" <charlie@earthlink.net>
wrote:

>Bob,
>The storm was not a pinpoint single line width across the map but over 3 0 0
>m i l e s wide. I did not measure the "winds in Union". If they were not
>high enough for you then maybe better luck next time.

According to the storm category indications on the map at

http://www.wunderground.com/tropical/tracking/at200504.html

"Hurricane Dennis" was actually a "tropical depression" before it ever
crossed into Mississippi, some distance north of Union.

Charlie, I would never wish high winds upon anyone, but before you
brag about riding out a Category 4 Hurricane, you should be a little
more accurate in your terminology :-)

Have a good one...

bob
k5qwg

2633. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:11:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d5kkfjaejr852@corp.supernews.com>
Source record: 73499
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg Edwards wrote:
>
> Roy, I'm thinking of occasionally changing 'old wives' to
> 'charlatans'. It may sometimes better fit the circumstances.
> ----
> Reg.

Oh, boy! Then maybe before long I'll be able to add "RC" to my impressive and growing list of titles!

Roy Lewallen, W7EL

2634. Re: Calculating loss on a mismatched line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:27:21 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <vDAAe.308$rX7.91@fe06.lga>
Source record: 73500
Body handling: Inline uuencoded payload not displayed: p.gif

"Owen" <owen@no.where> wrote in message
news:a6d1d15hvsbgksu5t7fj3duv3o44k59eho@4ax.com...
> On Sat, 9 Jul 2005 23:17:18 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
>
> >I'm trying to understand your Mathcad presentations, but I've run into
some
> >roadblocks concerning terminology, some of which I'm not familiar with.
I
> >confess my questions prove my ignorance, but that's ok if one's trying
to
> >learn. However, I was using nominal Zo.
>
> Not at all, you are far more eminent that I on this topic, and I
> appreciate your review. I am learning from all this.
>
> Apologies for the difficulty in understanding my notation. Some of it
> breaks into psuedo programming code.
> >
> >First, Xo!=0. I don't know what this means.
>
> Not equals.
>
> >Second, what does MML stand for in English?
>
> MLL? Matched Line Loss (dB/m)
>
> >Third, in 'functions for V, I, Z, etc at z'. Where is 'z'? I cannot
find any
> >reference to it.
>
> These quantities are a function of z, where z is a position on the
> line. The convention that I have used for displacement is that it is
> negative towards the generator. When it matters, displacement is in
> metres. The z is just used in definition of some functions in Matchcad
> (where you see :=), I have used x for position variable in the graphs.
>
> >Fourth, 'exp'. Exponent? If so, of what? e?
>
> exp(x) is e to the power of x (For clarity, I shouldn't have written
> it that way, it works, but Mathcad understands the meaning of e
> superscript x as e to the power of x, as you will see in some of the

> expressions, and it is easier to read.)
>
> >Fifth, I understand 'x' as distance along the line from the
termination, but
> >what is 'y'?
>
> In some of the functions, I have written them to calculate some
> quantity between two arbitrary points x and y. They are used in the
> definition of fuctions (where you see :=). Most of the graphs use 0
> for y so they are plotted wrt the load position
>
> >Sixth, what is AppLoss? Approximate? Apparent? Applied?
>
> Approximate Loss, and it was incorrectly based on Zo rather than
> nominal Zo.
>
> >Seventh, 'DLoss'. What is 'D'? Dielectric? Again, what is the 'y' term?
An
> >ordinate value?
>
> DLoss was equivalent to AppLoss.
>
> >Eighth, in the LineLoss(x,y) = 10log... the identical right-hand terms
in
> >both numerator and denominator, the identical functions of 'e^^ x e^^.
what
> >is the meaning of the bar above the second appearance of 'e'? And above
> >gamma(x)?
>
> The bar above the variable is the complex conjugate operator.
>
> >
> >I want to understand your math presentation, Owen, especially when I
see
> >that Loss(x,0 - W2DUloss(x,0) is so small I want to understand what
makes
> >the difference. So I'd appreciate it if you'd set me straight on the
points
> >I made above.
>
> Walt, in the models at http://www.vk1od.net/temp/LineLoss.htm , I now
> know why there is such a gap between DLoss and LineLoss. You will
> recognise AppLoss / DLoss is your Appendix 8 expression, but my rho
> function was based on the modelled complex value of Zo (characteristic
> impedance), not the nominal value of Zo.
>
> In the second lot at http://www.vk1od.net/temp/reflection.htm ,
> AppLoss is equivalent to DLoss and it is based on nominal Zo, W2DULoss
> you will see calculates the rho term (though not identified) using
> nominal Ro.

>
> Comparing the results with loss calcuated from P(x)/P(y) (the ratio of
> the real power at points x and y), the conclusion is that using your
> expression with actual Zo is not at all accurate, using it with
> nominal Zo is very close. If I force Zo to be real for all modelling,
> the results of all methods is exactly the same (within rounding errors
> of the order of 10 to the power of -14)
>
> Some of your questions are just about the Mathcad notation (though
> that is not too dissimilar to normal handwritten math notation), but
> some of it is my expression and usage. Again my apologies for
> confusing with too little explanation. I appreciate your review and
> comments Walt.
>
> Owen

Thank you, Owen, for kicking aside the roadblocks preventing me from understanding your math presentation. I get it now, and realize I was a knothead for being confused.

It is now perfectly clear why one can't get the true answer using my expressions for calculating loss on the line when using only the nominal Zo and not the actual Zo when there is loss. I should have known that intuitively, and why it escaped me is puzzling.

Studying your math approach let me see the light, and for that I thank you. And thank you also for taking the time to teach me.

Walt

PS--I note from your telephone numbers in your email to me that you are not located in the US. Also, the name Duffy sounds somewhat British. Are you in the UK?

[Inline uuencoded payload not displayed: p.gif]

2635. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:30:01 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <gFAAe.255$Qu4.23654@news.xtra.co.nz>
Source record: 73501
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Charlie" <charlie@earthlink.net> wrote in message
news:11d5ihah26vq99f@news.supernews.com...
> Because the images are virtually the same..even if I stepped outside and
> shot a "true after" picture it would be the same image.
>
> Sorry to disappoint all you guys but there was no damage here.....as all
> but a very few "tower experts" predicted.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
Charlie, you may have noticed that the thread died once people realised you are out of town and not endangering anyone else. Good on you for putting up a tower out there, what the hell, eh? But the distortions aren't exactly helpful.

More to the point, how's the DX'ing? I used to have to go to a nearby mountainside road to get any height like you have now.

Cheers.

Ken

2636. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:31:05 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5lomlla9k19f@news.supernews.com>
Source record: 73502
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

President Bush has authorized "Disaster Relief Funds" for 38 counties in
Mississippi including my county of Newton.
1. http://www.wtok.com/home/headlines/1678647.html

You cartographer skills as well as your meteorological powers of analysis
leave a lot to be desired.

Have a nice day.....sorry my tower did not collapse and that no one in my
family was killed. Maybe next time..eh?

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:4uj5d111ebenscmhd8seur1qm9geantdmu@4ax.com...
> On Mon, 11 Jul 2005 14:52:11 -0500, "Charlie" <charlie@earthlink.net>
> wrote:
>
>>Bob,
>>The storm was not a pinpoint single line width across the map but over 3 0
>>0
>>m i l e s wide. I did not measure the "winds in Union". If they were not
>>high enough for you then maybe better luck next time.
>
> According to the storm category indications on the map at
>
> http://www.wunderground.com/tropical/tracking/at200504.html
>
> "Hurricane Dennis" was actually a "tropical depression" before it ever
> crossed into Mississippi, some distance north of Union.
>
> Charlie, I would never wish high winds upon anyone, but before you
> brag about riding out a Category 4 Hurricane, you should be a little
> more accurate in your terminology :-)
>
> Have a good one...
>
> bob
> k5qwg
>

>
>

2637. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:33:24 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <8bl5d1tr6kljs8htk99j4sej6t3ouoir0q@4ax.com>
Source record: 73503
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank wrote:

>I am not aware of a damper ever being considered a storage device.
>Capacitance is equivalent to mass, Inductance is equivalent to a spring, and
>resistance equivalent to a damper. Am I missing something?

Nope. But the OP, now posting as 'Polymath', had said "The same analogy applies to springs and to shock absorbers; the spring stores energy when stretched; the shock-absorber stores energy when compressed. Both the spring and shock absorber will return energy at some time and this exhibit reactance!"

But the shock-absorber stores...nothing, and can return nothing. It therefore cannot have the mechanical equivalent of reactance, and cannot therefore be a part of a frequency-determining mechanism. He had failed to appreciate the property of mass - a rather fundamental point. That is why I said he was an idiot - a claim I see no reason to change.

from
Aero Spike

2638. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:35:26 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <0ul5d118alf0jkvvccsqvj8v6nefjh5j06@4ax.com>
Source record: 73504
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank wrote:

>Is this what you are talking about?
>
>"The same analogy applies to springs and to shock absorbers;
>the spring stores energy when stretched; the shock-absorber
>stores energy when compressed. Both the spring and shock
>absorber will return energy at some time and this exhibit reactance!"
>
>I think we have been at cross purposes. The above is nonsense.
>

Exactly! That was the point, repeatedly made by others, at the time of
the original posting.

from
Aero Spike

2639. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:39:45 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <q5m5d1h9s3nj383pkh1d6qulcb7n0mrkpr@4ax.com>
Source record: 73505
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 15:31:05 -0500, "Charlie" <charlie@earthlink.net>
wrote:

>President Bush has authorized "Disaster Relief Funds" for 38 counties in
>Mississippi including my county of Newton.
>1. http://www.wtok.com/home/headlines/1678647.html

Yep, those tropical depressions can be rough -- let us know next time
it rains in Union -- we'll want to see "before & after" pics of your
tower.

bob
k5qwg

>
>You cartographer skills as well as your meteorological powers of analysis
>leave a lot to be desired.
>
>Have a nice day.....sorry my tower did not collapse and that no one in my
>family was killed. Maybe next time..eh?

2640. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:42:16 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <IQAAe.127795$tt5.56919@edtnps90>
Source record: 73506
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Spike" <Aero.Spike@Technologies.invalid> wrote in message
news:0ul5d118alf0jkvvccsqvj8v6nefjh5j06@4ax.com...
> Frank wrote:
>
>>Is this what you are talking about?
>>
>>"The same analogy applies to springs and to shock absorbers;
>>the spring stores energy when stretched; the shock-absorber
>>stores energy when compressed. Both the spring and shock
>>absorber will return energy at some time and this exhibit reactance!"
>>
>>I think we have been at cross purposes. The above is nonsense.
>>
>
> Exactly! That was the point, repeatedly made by others, at the time of
> the original posting.
>
> from
> Aero Spike

Which is exactly what you said in your original posting. The fact is I
should have read it more carefully.

Regards,

Frank

2641. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 20:44:23 UTC
From: Charlie <charlie@earthlink.net>
Message-ID: <11d5mhnlemj3e6f@news.supernews.com>
Source record: 73507
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

There are no distortions Ken. The tower looks the same the day before Dennis as it does now the day after. The WHOLE POINT in using 2 identical photos was to illustrate that there IS NO DIFFERENCE after the storm.

I have been on Usenet for 20 years or more and it is always the same....people just wait in the wings to take pot shots at others. I posted a link to the tower photos and all I got was ridicule and cuss words.

Now that it survived the affects of hurricane Dennis I get accusations that Dennis never even came near my home.
You guys can all go fish..or any other "F" word you might be able to think of.

Sorry to rob you all of the splendor of viewing my new tower down on the ground.

You fuckers are all a bunch of real sick bastards.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Ken Taylor" <ken123@xtra.co.nz> wrote in message
news:gFAAe.255$Qu4.23654@news.xtra.co.nz...
> "Charlie" <charlie@earthlink.net> wrote in message
> news:11d5ihah26vq99f@news.supernews.com...
>> Because the images are virtually the same..even if I stepped outside and
>> shot a "true after" picture it would be the same image.
>>
>> Sorry to disappoint all you guys but there was no damage here.....as all
>> but a very few "tower experts" predicted.
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>>
>>

> Charlie, you may have noticed that the thread died once people realised
> you are out of town and not endangering anyone else. Good on you for
> putting up a tower out there, what the hell, eh? But the distortions
> aren't exactly helpful.
>
> More to the point, how's the DX'ing? I used to have to go to a nearby
> mountainside road to get any height like you have now.
>
> Cheers.
>
> Ken
>
>

2642. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 21:18:27 UTC
From: Big Ugly <xxx@xxx.com>
Message-ID: <xxx-61C0A7.16182711072005@news-rdr-02.rdc-kc.rr.com>
Source record: 73508
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

In article <11d5mhnlemj3e6f@news.supernews.com>,
"Charlie" <charlie@earthlink.net> wrote:

> There are no distortions Ken. The tower looks the same the day before Dennis
> as it does now the day after. The WHOLE POINT in using 2 identical photos
> was to illustrate that there IS NO DIFFERENCE after the storm.
>
> I have been on Usenet for 20 years or more and it is always the
> same....people just wait in the wings to take pot shots at others. I posted
> a link to the tower photos and all I got was ridicule and cuss words.
>
> Now that it survived the affects of hurricane Dennis I get accusations that
> Dennis never even came near my home.
> You guys can all go fish..or any other "F" word you might be able to think
> of.
>
> Sorry to rob you all of the splendor of viewing my new tower down on the
> ground.
>
> You fuckers are all a bunch of real sick bastards.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net

If you make yourself a target you become one dummy.

>
>
>
>
>
> "Ken Taylor" <ken123@xtra.co.nz> wrote in message
> news:gFAAe.255$Qu4.23654@news.xtra.co.nz...
> > "Charlie" <charlie@earthlink.net> wrote in message
> > news:11d5ihah26vq99f@news.supernews.com...
> >> Because the images are virtually the same..even if I stepped outside and
> >> shot a "true after" picture it would be the same image.
> >>
> >> Sorry to disappoint all you guys but there was no damage here.....as all

> >> but a very few "tower experts" predicted.
> >>
> >> --
> >>
> >> Charlie
> >> Ham Radio - AD5TH
> >> www.ad5th.com
> >> Deep South 2 Meter SSB Net
> >> www.deepsouthnet.net
> >>
> >>
> > Charlie, you may have noticed that the thread died once people realised
> > you are out of town and not endangering anyone else. Good on you for
> > putting up a tower out there, what the hell, eh? But the distortions
> > aren't exactly helpful.
> >
> > More to the point, how's the DX'ing? I used to have to go to a nearby
> > mountainside road to get any height like you have now.
> >
> > Cheers.
> >
> > Ken
> >
> >

2643. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 21:19:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d2e37a$1_1@spool9-west.superfeed.net>
Source record: 73509
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:
> The WHOLE POINT in using 2 identical photos
> was to illustrate that there IS NO DIFFERENCE after the storm.

I'll bet CSI could find a difference.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2644. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 21:22:54 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1121116974.074626.13810@g47g2000cwa.googlegroups.com>
Source record: 73510
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Hey, Charlie, glad to hear your tower suffered no ill effects. You'll
be overjoyed to know that mine didn't either. Sorry, no pix available.

Cheers,
Tom

2645. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 21:52:41 UTC
From: Owen <owen@no.where>
Message-ID: <03q5d15rnavfqlt0khgqqgg3q182ljit3c@4ax.com>
Source record: 73512

On Mon, 11 Jul 2005 15:44:23 -0500, "Charlie" <charlie@earthlink.net>
wrote:

>There are no distortions Ken. The tower looks the same the day before Dennis
>as it does now the day after. The WHOLE POINT in using 2 identical photos
>was to illustrate that there IS NO DIFFERENCE after the storm.
>

Charlie, the assessment that the "tower looks the same the day before
Dennis as it does now the day after" is your own assessment, then to
convince others, you misrepresent a "before" photograph as an "after"
photograph as evidence to support your assessment.

The photograph is not honest, it portrays what is in your mind rather
than what is on the ground, and IMHO is only evidence of what is in
your mind.

Might have been a nice point if you did take an after photograph.

As to the extent that you experienced Hurricane Dennis, I will leave
that to you guys to work out.

Owen
--

2646. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 21:54:19 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <iUBAe.305$Qu4.25546@news.xtra.co.nz>
Source record: 73511
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Just posting a real 'after' shot would have shut people up (well, most, as you say).

Anyway, still glad it didn't come down. My only beef was ever the neighbours - since they aren't in sight (and I notice you don't seem to have your house near it either) I say go for it.

Cheers.

Ken

"Charlie" <charlie@earthlink.net> wrote in message news:11d5mhnlemj3e6f@news.supernews.com...
> There are no distortions Ken. The tower looks the same the day before
> Dennis as it does now the day after. The WHOLE POINT in using 2 identical
> photos was to illustrate that there IS NO DIFFERENCE after the storm.
>
> I have been on Usenet for 20 years or more and it is always the
> same....people just wait in the wings to take pot shots at others. I
> posted a link to the tower photos and all I got was ridicule and cuss
> words.
>
> Now that it survived the affects of hurricane Dennis I get accusations
> that Dennis never even came near my home.
> You guys can all go fish..or any other "F" word you might be able to think
> of.
>
> Sorry to rob you all of the splendor of viewing my new tower down on the
> ground.
>
> You fuckers are all a bunch of real sick bastards.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
>
>
>
>

> "Ken Taylor" <ken123@xtra.co.nz> wrote in message
> news:gFAAe.255$Qu4.23654@news.xtra.co.nz...
>> "Charlie" <charlie@earthlink.net> wrote in message
>> news:11d5ihah26vq99f@news.supernews.com...
>>> Because the images are virtually the same..even if I stepped outside and
>>> shot a "true after" picture it would be the same image.
>>>
>>> Sorry to disappoint all you guys but there was no damage here.....as all
>>> but a very few "tower experts" predicted.
>>>
>>> --
>>>
>>> Charlie
>>> Ham Radio - AD5TH
>>> www.ad5th.com
>>> Deep South 2 Meter SSB Net
>>> www.deepsouthnet.net
>>>
>>>
>> Charlie, you may have noticed that the thread died once people realised
>> you are out of town and not endangering anyone else. Good on you for
>> putting up a tower out there, what the hell, eh? But the distortions
>> aren't exactly helpful.
>>
>> More to the point, how's the DX'ing? I used to have to go to a nearby
>> mountainside road to get any height like you have now.
>>
>> Cheers.
>>
>> Ken
>>
>>
>
>

2647. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 22:07:59 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <35CAe.8796$184.2063@newsfe2-win.ntli.net>
Source record: 73513
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Beanie's Bum Chum <Nedlar wrote:
> How many bags do you get through in a month?
>
What's your problem? Frustrated now Beanie's got a job during the week?
Never mind, I don't suppose it will last long.
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

2648. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 22:13:31 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <daur1o$7k4$1@news.service.uci.edu>
Source record: 73514

Cecil Moore wrote:

> Who said powers can never be added?

Must have been someone who was unfamiliar with the expression 'figures
can lie and liars can figure'.
:-)

ac6xg

2649. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 22:36:32 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42d2f470$0$32195$39cecf19@news.twtelecom.net>
Source record: 73515

Bob Nielsen wrote:

> Has anyone been able to get Eznec to run in Win4Lin (an emulator for
> running Windows as a Linux application)? I get the startup screen, but
> then an error window pops up saying EZWf14.DLL is missing. It is in the
> C:\Program Files/ezw directory (although Windows Explorer does not show it
> either). It works fine running Windows 98SE natively.
>
> Bob, N7XY

Hi Bob,

I've been running Win4Lin for years, since the original alpha pre-1
days, and never had anything, well anything normal, that didn't work,
including RadioMobile. And Roy's program seems to be pretty normal in
how it talks to the OS.

Which version of Win4Lin? The new one that does XP?

Did the install look clean? No hiccups during it?

If there was anything at all suspicious, get in touch with Win4Lin
support, they are quite good at following up.

tom
K0TAR

2650. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 22:42:36 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <wBCAe.540$322.221@newsfe4-gui.ntli.net>
Source record: 73516
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Beanie's Bum Chum <Nedlar wrote:
> On Mon, 11 Jul 2005 22:07:59 GMT, Frank Turner-Smith G3VKI
> <g3vki@turner-smith.co.uk> [pass another bag] wrote:
>
>
>
>>What's your problem? Frustrated now Beanie's got a job during the week?
>>Never mind, I don't suppose it will last long.
>
>
>
> What's your problem? Run out of bags?
No, I've got plenty. Do you want some?
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

2651. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-11 23:47:37 UTC
From: Buck <iam@this.site>
Message-ID: <f316d1570jbqtlsff0ikd099drtusr77na@4ax.com>
Source record: 73517
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 12:49:26 -0500, "Charlie" <charlie@earthlink.net>
wrote:

>In all honesty to those that ridiculed the tower and it's associated
>riggings etc...I have posted photos of the damage incurred from the category
>4 hurricane Dennis. I never expected this kind of result...live and learn I
>suppose. Here is the direct link..
>
>1. http://deepsouthnet.net/storm_damage.html

Just because the antenna wasn't damaged in this storm doesn't mean it
its installation is safe. So it withstood a storm whose biggest claim
to fame around her is flood damage.

Will the antenna stand the test of time?

Good luck
Plonk!

--
73 for now
Buck
N4PGW

2652. T-wave technology

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:04:19 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42d30904$0$32206$39cecf19@news.twtelecom.net>
Source record: 73518

This group has vast experience, so I was wondering what any of you have worked on, or just plain know about, the so called T-wave range of frequencies. Which would be roughly 100GHz to 10THz.

And if you have worked on it, what can you tell us about it? It seems to have some interesting potential, similar to XRay in some ways, but also sensitive to chemical properties.

tom
K0TAR

2653. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:28:06 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <qt26d157vi7ukrm02d1hg0hjtup952dgdp@4ax.com>
Source record: 73519
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 19:47:37 -0400, Buck <iam@this.site> wrote:

>On Mon, 11 Jul 2005 12:49:26 -0500, "Charlie" <charlie@earthlink.net>
>wrote:
>
>>In all honesty to those that ridiculed the tower and it's associated
>>riggings etc...I have posted photos of the damage incurred from the category
>>4 hurricane Dennis. I never expected this kind of result...live and learn I
>>suppose. Here is the direct link..
>>
>>1. http://deepsouthnet.net/storm_damage.html
>
>
>Just because the antenna wasn't damaged in this storm doesn't mean it
>its installation is safe. So it withstood a storm whose biggest claim
>to fame around her is flood damage.
>
>Will the antenna stand the test of time?
>
>Good luck
>Plonk!

While I'm not going to "plonk" you, I would advise you to get better guy anchors. Trees and utility poles aren't up to the task. If it was me, I'd set some 6 or 8 inch steel pipe about four to six feet into a BIG block of cement leaving six or seven feet out of the ground. Have lugs welded to the pipe and attach the guys to the lugs. This will get the guys up over head high and allow grass cutting and the like around the posts. When the tree comes down, so will your tower. Of course, using two different brands of tower section was just foolish, the money spent on making a possibly faulty adapter could have gone for another good section of tower. But, hey, it's your tower and your money. As for me and mine, good engineering practice takes precedence over make-do every time. Another amazing fact is that someone climbed up there to put it up and set antennas. It must have been a crazy man, as no sane tower-monkey would have climbed up there on two different tower sections and faulty guying. Be sure and post photos of the wreck when it comes down,eh.

R

2654. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:31:35 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <pan.2005.07.12.00.31.35.195227@removethis.oz.net>
Source record: 73520

On Mon, 11 Jul 2005 17:36:32 -0500, Tom Ring wrote:

> Bob Nielsen wrote:
>
>> Has anyone been able to get Eznec to run in Win4Lin (an emulator for
>> running Windows as a Linux application)? I get the startup screen, but
>> then an error window pops up saying EZWf14.DLL is missing. It is in the
>> C:\Program Files/ezw directory (although Windows Explorer does not show it
>> either). It works fine running Windows 98SE natively.
>>
>> Bob, N7XY
>
> Hi Bob,
>
> I've been running Win4Lin for years, since the original alpha pre-1
> days, and never had anything, well anything normal, that didn't work,
> including RadioMobile. And Roy's program seems to be pretty normal in
> how it talks to the OS.
>
> Which version of Win4Lin? The new one that does XP?
>
> Did the install look clean? No hiccups during it?
>
> If there was anything at all suspicious, get in touch with Win4Lin
> support, they are quite good at following up.
>
> tom
> K0TAR

I tried the demo (successfuly) and am pretty sure the problem is that I can't find my original EZW version 3 to version 4+ upgrade file and copying the c:\Program Files\EZW directory from my Win 98SE partition (which I want to delete eventually) either didn't give me all the files I needed or the registry won't recognize something. I'll try installing version 3 (I still have the CD for that), which is less capable, but better than the demo.

Bob N7XY

2655. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:34:48 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <pan.2005.07.12.00.34.42.583925@removethis.oz.net>
Source record: 73521
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 11 Jul 2005 09:52:25 -0700, Wes Stewart wrote:

> On Sun, 10 Jul 2005 23:46:13 +0100, "Gerard Lynch"
> <gerrylynch@freenetname.co.uk> wrote:
>
>>
> [snip]
>>Guns aren't an issue here. We're not allowed to have them. Nobody much (as
>>in about 90% of the population) cares. We care about things you folks have
>>never even heard about instead (fancy an ID card?)
>
> Over here in 'Merica they're called "Social Security Cards." Every
> newborn baby is required to have one.

And they say something like "not to be used for identification" right on
the cards. The way things are going, we will probably all need to carry
passports before long.

2656. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:43:03 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42d31217$0$22196$39cecf19@news.twtelecom.net>
Source record: 73522

Bob Nielsen wrote:

> I tried the demo (successfuly) and am pretty sure the problem is that I
> can't find my original EZW version 3 to version 4+ upgrade file and
> copying the c:\Program Files\EZW directory from my Win 98SE partition
> (which I want to delete eventually) either didn't give me all the files I
> needed or the registry won't recognize something. I'll try installing
> version 3 (I still have the CD for that), which is less capable, but
> better than the demo.
>
> Bob N7XY

Sounds like the way to go. I'll bet Roy's response is in the pipeline
already.

tom
K0TAR

2657. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:46:56 UTC
From: Peter LaGrange <lagrange_0090@hotmail.com>
Message-ID: <ZmEAe.23810$x82.18913@fe03.lga>
Source record: 73523
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:

> I have been on Usenet for 20 years or more and it is always the
> same....people just wait in the wings to take pot shots at others. I posted
> a link to the tower photos and all I got was ridicule and cuss words.

You'd think your twenty years of Usenet experience would not have failed
you like this.

> Sorry to rob you all of the splendor of viewing my new tower down on the
> ground.
>
> You fuckers are all a bunch of real sick bastards.
>

No one wants your tower to fall down, nor harm to you or your family.
But you basically posted troll fodder and then have the audacity to
whine when it's not the attention you so wanted.

If you don't like the heat, don't post stupid things on Usenet.

2658. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 00:48:42 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11d64re1jpbnod1@corp.supernews.com>
Source record: 73524
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:

> Because the images are virtually the same..even if I stepped outside and
> shot a "true after" picture it would be the same image.
>
> Sorry to disappoint all you guys but there was no damage here.....as all but
> a very few "tower experts" predicted.
>
If they are two different pictures why do they have the same file name?

Dave N

2659. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 01:01:12 UTC
From: Gerard Lynch <gerrylynch@freenetname.co.uk>
Message-ID: <eaGdnfnwoqvCi07fRVnysA@brightview.com>
Source record: 73425
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Bob Nielsen" <nielsen@removethis.oz.net> wrote in message
news:pan.2005.07.12.00.34.42.583925@removethis.oz.net...
> On Mon, 11 Jul 2005 09:52:25 -0700, Wes Stewart wrote:

>> Over here in 'Merica they're called "Social Security Cards." Every
>> newborn baby is required to have one.
>
> And they say something like "not to be used for identification" right on
> the cards. The way things are going, we will probably all need to carry
> passports before long.

Yeah. They say all sorts of things over here too.

Internal passports... nice Tsarist idea, kept up by the KGB.

This must be boring people who haven't killfiled us all who are looking for
a discussion on aerials or electrical engineering (don't worry about being
off topic on uk.radio.amateur - *we* all are) so I'd best QRT on this here
breaker channel.

--
73

Gerry G0RTN
Vanity Page at http://www.gerrylynch.co.uk

2660. Dipole vs Antron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 01:24:52 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1121131492.486515.29440@g14g2000cwa.googlegroups.com>
Source record: 73426

Which will out perform the other in local - line of sight - use?

2661. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 01:35:05 UTC
From: spaceyfi <spaceyfi5@yahoo.com>
Message-ID: <1121132105.203448.125460@g49g2000cwa.googlegroups.com>
Source record: 73427
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Definately, sometimes we learn our lessons the hard way.

Susan
Ham to be
Husband Leon is KB7YXG

2662. Re: Eznec running under Linux/Win4Lin

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 01:41:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11d67tn25140s40@corp.supernews.com>
Source record: 73428

Bob Nielsen wrote:
>
> I tried the demo (successfuly) and am pretty sure the problem is that I
> can't find my original EZW version 3 to version 4+ upgrade file and
> copying the c:\Program Files\EZW directory from my Win 98SE partition
> (which I want to delete eventually) either didn't give me all the files I
> needed or the registry won't recognize something. I'll try installing
> version 3 (I still have the CD for that), which is less capable, but
> better than the demo.
>
> Bob N7XY

I encourage people having any problem with EZNEC to email me. But I think this is of general interest to all users of Windows programs as well as EZNEC, so I'll continue posting here for a short while. It is drifting away from anything to do with antennas, though, so it should be taken to email if it's not resolved very soon.

Like many Windows programs, EZNEC requires files and Registry entries which which are installed with the installation program but not in the EZNEC program directory. So it won't function properly or at all if you just copy the program directory from another computer or operating system. (The demo program is a little more tolerant this way and you might get away with it, depending on what you already have installed on your machine. But don't count on it.) The only way to produce a functioning full-version program is to install it on the target system using the installation program. This also holds true for many other Windows programs. Sorry, Toto, we're not in DOS any more.

Anyone who purchases an upgrade doesn't get an "upgrade file". You get the complete newer version of the program which doesn't require the old version to install or run. An upgrade just gets you a special price, not a different program.

Email me if you need to make arrangements to download the program again.

For those of you who have EZNEC or might purchase it in the future -- if you aren't able or willing to back up the downloaded file, spend the extra $10 for the CD. I heartily recommend this for all programs, not just EZNEC.

Roy Lewallen, W7EL

2663. Re: Dipole vs Antron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 02:03:50 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3682c$42d3250a$97d55c31$11652@ALLTEL.NET>
Source record: 73429

Depends on what the other guy has.

"Blue Dawg" <thecowboyace@yahoo.com> wrote in message
news:1121131492.486515.29440@g14g2000cwa.googlegroups.com...
> Which will out perform the other in local - line of sight - use?
>

2664. Re: Dipole vs Antron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 03:23:58 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <jIGAe.60094$Tt.56750@bignews3.bellsouth.net>
Source record: 73430

They're both half-have antennas, so the mounting height, polarity,
orientation relative to each other and what the 'other folk' have will have
a bearing.
but for line-of-sight - just holler at 'em.

but its hard to beat the ol' a-99 if you have it sticking out the top of a
tall pine tree.
even better if you hook your radio to it

"Blue Dawg" <thecowboyace@yahoo.com> wrote in message
news:1121131492.486515.29440@g14g2000cwa.googlegroups.com...
> Which will out perform the other in local - line of sight - use?
>

2665. Re: Butternut HF6V need guys?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 03:27:03 UTC
From: Ron <ron@nowisconsin.com>
Message-ID: <4qc6d19ns3d68k3h2gklo6otufme12630j@4ax.com>
Source record: 73431

My antenna and ground mount came to me a used equipment/
The mounting post that came along is fantastically designed. Let me
try to describe it to you:
Galvanized steel water pipe four feet in lenght with a nominal Inner
diameter of about 1 inch.
One end has a taper point (very much like a sand point well point)
wellded to it..

The opposite end (side that vertical and atenna insulater is dropped
into) has 3 in by 3 inch " ears welded parrallel to the length of the
pipe, 5 inches from the end and 180 aprt from each other.
The welded steel ears are about 3/16 of an in thick. Each ear has a
3/8 inch hole drilled through them about 3/4 of an inch from the top
of the ear. This permits hooking 1/4 or 5/16 proof coil chain as a
point to remove pole using a convienent fulcrum or jack.
I use a 10 pound mall to drive the pole into medium hard ground. I
strike the ears, not the pole. When you get to ground level with the
ears continue to drive the ears to the bolt holes. This pole will
never rotate.

It is almost easier to fabricate this than it is to describe it.
Completely removable and reusable mount.
Two 3/16 holes are drilled through the fiberglass insulator and
through the mount where I have number 10 -24 stainless hardware.

Ron

On Sun, 10 Jul 2005 15:44:19 +0100, Dave Piggin
<d.piggin@zetnet.co.uk> wrote:

>
>
>> I do plan to add a fair number of guys, and will be installing them just as
>> you have suggested. I do have a question about driving the 1 1/8" mounting
>> tube into the earth. The directions give a warning about splitting the
>> plastic insert and suggest placing a piece of wood on top of the tube and
>> then hammer on the wood. The soil here is clay, and the ground is
>> quite dry,
>> at the present time. Do you, or anyone else, have any suggestions about
>> driving the tube into the ground. Should I drive a wooden stake first to
>> form a hole, remove the stake, and then drive the tube into the hole
>> left by
>> the stake?
>
>Post Hole/fencing Borer comes to mind or depending on your current soil
>condition you could use a hose pipe with a tube inserted in the tip and

>bore a hole that way, albeit fairly high pressure is needed, but that
>could be achieved with a pressure washer. As you start off your bound to
>be soaked a bit, but as you [bore deeper] push/ pull the nozzle out of
>the hole so that excess soil/clay can be removed by the water, bore down
>to your required depth, insert pole and back fill with sand or tamp down
>soil sides. This is also one way to ensure you can get a decent enough
>hole, deep enough to insert a earth stake. Your idea of utilising a hole
>by driving in a stake would no doubt give you problems extracting it
>back out again as I assume that you would be requiring a depth of about
>900mm? Dave d:-)

2666. Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 03:41:13 UTC
From: Mike Speed <gg@dmi.net>
Message-ID: <davebg$e8h$1@domitilla.aioe.org>
Source record: 73432

What do you guys think of the Gap Antennas - they have the Titan, etc.

How many of you have had experience with
elevated radials? Four elevated radials at the correct length and
height are supposed perform as well as many ground mounted radials.

2667. OCF dipole ?? Not quite enough space to hang!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 03:51:45 UTC
From: Ed Laughery <laughery@bellsouth.net>
Message-ID: <06HAe.59657$ho.10121@bignews6.bellsouth.net>
Source record: 73433

Hi

I have a 260 OCF dipole that I wouldl like to hang but the largest span between trees is about 220 ft. at about 60 ft high on one end and 80 ft on the other.

1. How will the antenna performance be affected if I let the ends just drop staright down?

2. The long side is 166 ft, short side 94 ft. - if letting the ends drop down is OK, would it make a difference to put the vertical amount on one side. If so, would it be best to let the extra drop vertically on the long side? short side? or best to even up the extra on both ends?

Thanks in advance.

73
Ed AD5JV

2668. Re: Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 04:51:28 UTC
From: nm5k@wt.net
Message-ID: <1121143888.873785.285320@g43g2000cwa.googlegroups.com>
Source record: 73434

What do you guys think of the Gap Antennas - they have the Titan, etc.

I like the designs of the butternuts better in general...

How many of you have had experience with
elevated radials?

I'm one....

Four elevated radials at the correct length and
height are supposed perform as well as many ground mounted radials.

Yes, at the correct height above the ground in terms of *wavelength*.
I would not expect super results with 4 radials, below about 1/4 wave
above the ground. And that 1/4 wave above ground will be a different
height for each band. A 1/2 wave up would be better, but may be
impractical on the low bands. I used 4 radials on a 40m ground plane,
at 36 ft at the base. Just a bit over a 1/4 wave up. Worked quite well,
and
was equal to appx 60 radials on the ground. But drop down to 1/8 wave,
and you will need *many* more than 4 radials for the same amount
of ground loss. At 1/2 wave up, 4 radials are appx equal to 100-120
on the ground. Real low "IE: 5-10 ft high" elevated radials are just
barely
better than having them on the ground on the lower bands. Even
20 ft up, will be pretty lackluster, unless you have a lot of them, or
are using a
high frequency. 20 ft is higher than a 1/2 wave on 10m. ..
I found 1/4 wave up to be the lowest height for really *good* results
when
using only 4 radials. Any lower, and it drops to *mediocre*
performance...
MK

2669. Re: Dipole vs Antron

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 04:53:29 UTC
From: nm5k@wt.net
Message-ID: <1121144009.562252.85830@g14g2000cwa.googlegroups.com>
Source record: 73435

The vertical. MK

2670. Re: OCF dipole ?? Not quite enough space to hang!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 05:21:28 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <srIAe.435$dX5.149@newssvr19.news.prodigy.com>
Source record: 73436

Ed,
Hang it and let both ends dangle 20 feet or so. Will it make
a difference? Sure, some, but 'how' is sort of debatable, and
probably not worth worrying about.
'Doc

2671. Re: Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 10:51:28 UTC
From: Mike Speed <gg@dmi.net>
Message-ID: <db07bh$8lh$1@domitilla.aioe.org>
Source record: 73437

> What do you guys think of the Gap Antennas - they have the Titan, etc.
>
> I like the designs of the butternuts better in general...
>
> How many of you have had experience with
> elevated radials?
>
> I'm one....
>
> Four elevated radials at the correct length and
> height are supposed perform as well as many ground mounted radials.
>
> Yes, at the correct height above the ground in terms of *wavelength*.
> I would not expect super results with 4 radials, below about 1/4 wave
> above the ground. And that 1/4 wave above ground will be a different
> height for each band. A 1/2 wave up would be better, but may be
> impractical on the low bands. I used 4 radials on a 40m ground plane,
> at 36 ft at the base. Just a bit over a 1/4 wave up. Worked quite well,
> and
> was equal to appx 60 radials on the ground. But drop down to 1/8 wave,
> and you will need *many* more than 4 radials for the same amount
> of ground loss. At 1/2 wave up, 4 radials are appx equal to 100-120
> on the ground. Real low "IE: 5-10 ft high" elevated radials are just
> barely
> better than having them on the ground on the lower bands. Even
> 20 ft up, will be pretty lackluster, unless you have a lot of them, or
> are using a
> high frequency. 20 ft is higher than a 1/2 wave on 10m. ..
> I found 1/4 wave up to be the lowest height for really *good* results
> when
> using only 4 radials. Any lower, and it drops to *mediocre*
> performance...
> MK
>

Thanks for the answer - good empirical information about elevated radials.
I forget, though: how *long* do the elevated radials have to be in terms
of wavelength? For example: what would you recommend for a 1/4 wave
high 80m vertical?

2672. Re: OCF dipole ?? Not quite enough space to hang!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 12:51:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d3bdd7$1_2@spool9-west.superfeed.net>
Source record: 73438

Ed Laughery wrote:
> I have a 260 OCF dipole that I wouldl like to hang but the largest span
> between trees is about 220 ft. at about 60 ft high on one end and 80 ft on
> the other.

Idea: If you are not using it on 160m, make it 130 ft instead
of 260 ft.

> 1. How will the antenna performance be affected if I let the ends just drop
> staright down?

You won't notice much difference on the lower bands. Since the
drooping ends will be an appreciable percentage of a wavelength
on the higher bands, you may notice some additional directivity.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2673. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 13:25:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d3c5c5$1_2@spool9-west.superfeed.net>
Source record: 73439

Jim Kelley wrote:

> Cecil Moore wrote:
>> Who said powers can never be added?
>
> Must have been someone who was unfamiliar with the expression 'figures
> can lie and liars can figure'. :-)

You reckon Eugene Hecht was lying when he shows us how to
add two irradiances to obtain the total irradiance (power
per unit-area) in _Optics_? Adding EM wave powers during
interference is a well accepted way of handling EM wave
superposition in the field of optics. The bright constructive
interference rings contain more power than the dark destructive
interference rings. RF waves and light waves are both electro-
magnetic waves, just at different frequencies. Asserting that
RF waves obey a different set of laws of physics than do light
waves is naive ignorance at best.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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2674. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 13:30:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d3c6fd$1_2@spool9-west.superfeed.net>
Source record: 73440
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg Edwards wrote:

> "Cecil Moore" said,
>>And, for the record, it wasn't me who said that.
>
> As it was quite true you just as well could have said it. So I didn't
> take the trouble to correct the minor error.

Reg, IMO, only a naive person would ever use the words,
"absolutely sure". :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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2675. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 13:52:41 UTC
From: Geoff <geoff@geoff.spamless.com>
Message-ID: <42D3CB28.737111D6@geoff.spamless.com>
Source record: 73441

check

http://www.cebik.com/moxon/6m.html

make it for under $ 5.00 plus direct fed with coax !

geoff

2676. Re: Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 14:25:57 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <mZudnRycK_JmT07fRVn-sQ@adelphia.com>
Source record: 73442

"Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
news:datuk1lni2@f04n12.cac.psu.edu...
> David J Windisch wrote:
>
> > To all the fellas who eschew anonymity, embrace civility, keep humor dry
and
> > non-anatomical, occasionally expose the anon nitwits and their
nitwit-eries
> > ... and who post interesting stuff here.
> >
> > 73, Dave, N3HE
> > Cincinnati OH
>
>
> Hear, hear! This should be posted in more groups!
>
> - Mike KB3EIA -
>

Dry humor? I'll drink to that

2677. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 16:34:08 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42d3f161_4@newsfeed.slurp.net>
Source record: 73443
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Reg Edwards"
> And as usual, when the slightest difference of opinion occurs,
> somebody invariably feels impelled to go off at a tangent and drag in
> something they feel more at home with, such as VHF and UHF TV
> transmitting antennas, and, very soon, if we are not careful,

---

Admit it, Reg. You are just ready to pounce on me after I revealed the error of your belief that George Brown made a mistake by not measuring ground conductivity in the work for his landmark 1937 IRE paper (that you hadn't read) about ground systems for MW verticals. Don't pout.

RF

2678. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 18:35:52 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <c4UAe.924$vz5.525@newsfe4-win.ntli.net>
Source record: 73444
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Beanie's bum chum <Nedlar wrote:
> On Mon, 11 Jul 2005 22:42:36 GMT, Frank Turner-Smith G3VKI
> <g3vki@turner-smith.co.uk> wrote:
>
>
>
>>>What's your problem? Run out of bags?
>>
>>No, I've got plenty. Do you want some?
>
>
> No, your need is greater than mine.
I'm not so sure, you must need a massive spew bag after a session with
Beanie.
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

2679. zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 20:44:33 UTC
From: pegge <pegge.j@DELETEtelia.com>
Message-ID: <RYVAe.29028$d5.182116@newsb.telia.net>
Source record: 73445

someone tried to feed a type g5rv antenna with ?european? zip-cord ?
(european meaning double the Volts compared to USA, thus half amps
for the same lamp wattage)
Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
them up to the dipole part and the the rest X meter to a balanced tuner etc.
sorry if this has been up too many times, search did?nt give a clue!

Tnx for info, 73 Per / sm7aha malmo, sweden

2680. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 21:00:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <59b8d1h23v7hmrm5benk0a3ps7q8ha03e6@4ax.com>
Source record: 73446

On Tue, 12 Jul 2005 20:44:33 GMT, "pegge" <pegge.j@DELETEtelia.com>
wrote:
>someone tried to feed a type g5rv antenna with ï¿½europeanï¿½ zip-cord ?
>Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
>them up to the dipole part and the the rest X meter to a balanced tuner etc.

Hi Per,

Hard to apply the name g5rv to this, but that makes no difference
anyway. Simply call it a dipole driven with close spaced twin lead.
That twin lead will be 50 to 70 Ohms characteristic impedance. It
will also have a suspect dielectric loss. This does not make it a bad
antenna. There will be the usual high loss with high SWR - depending
upon the gauge of the wire.

In short, no worse than an ordinary antenna used outside of its
natural resonance.

73's
Richard Clark, KB7QHC

2681. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 21:05:23 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <ngWAe.130473$tt5.77777@edtnps90>
Source record: 73447

"pegge" <pegge.j@DELETEtelia.com> wrote in message
news:RYVAe.29028$d5.182116@newsb.telia.net...
> someone tried to feed a type g5rv antenna with ?european? zip-cord ?
> (european meaning double the Volts compared to USA, thus half amps
> for the same lamp wattage)
> Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
> them up to the dipole part and the the rest X meter to a balanced tuner
> etc.
> sorry if this has been up too many times, search did?nt give a clue!
>
> Tnx for info, 73 Per / sm7aha malmo, sweden

Check out the following analysis:

http://www.vk1od.net/G5RV/index.htm

Frank

2682. Re: Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 21:31:06 UTC
From: nm5k@wt.net
Message-ID: <1121203865.981304.114510@g14g2000cwa.googlegroups.com>
Source record: 73448

The radials need to be resonant if they are elevated. IE: 1/4 , 3/4
wave,
etc... For 80m, they will need to be appx 60-65 ft long. MK

2683. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 21:56:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <db1evmeqg1@news.service.uci.edu>
Source record: 73449

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> Who said powers can never be added?
>>
>>
>> Must have been someone who was unfamiliar with the expression 'figures
>> can lie and liars can figure'. :-)
>
>
> You reckon Eugene Hecht was lying when he shows us how to
> add two irradiances to obtain the total irradiance (power
> per unit-area) in _Optics_?

Eugene Hecht doesn't have a dog in this fight, Cecil. But the quote is a truism that applies in any case. Wrong numbers added correctly produce a wrong number; correct numbers added incorrectly produce an incorrect number; and in the special case, certain wrong numbers added in a particular incorrect way can produce a desired result.

You take too great a liberty with the name Eugene Hecht. Among the things which won't be found in any of Dr. Hecht's texts is a minus sign in front of number expressing an irradiance. Nor will we find a negative scalar quantity accompanied by the claim that the negative sign indicates a change in direction, as you have done. Eugene Hecht also did not claim that interference could be a cause for energy to reflect or otherwise change direction, as you have done. Such claims are blatently false.

Power and irradiance are derived and dependent quantities, not fundamental independent quantities in nature. And although an automobile moves at some speed, the scaler quantity itself is not something which moves. Similarly, power and irradiance do not physically propagate and they do not physically interact. 'They' do not reflect, refract, diffract, disperse, interfere, or act upon other 'powers' or 'irradiances'. JC Maxwell and others observed that it is electric and magnetic fields which propagate, interact with matter, and add algebraically and vectorially. When fields physically interact with matter, we can measure their effect and can quantify such things as voltage, current, and heat, and hence calculate such things as power or irradiance. But it is actually the fields themselves which algebraically sum. Of course the interference equation accurately

expresses power and irradiance. The fact that power and irradiance generally go as the square of the fields allows us to correctly make certain additional mathematical assumptions. One must still be careful not to mistake an effect for a cause. But it is the 2nd Amendment, the internet, and the absence of peer review which afford men the freedom and means to work equations and describe physical phenomena in any way they like.

73, ac6xg

2684. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-12 22:50:15 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <HOXAe.392$yw5.295@newsfe5-win.ntli.net>
Source record: 73450
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Beanie's Bum Chum <Nedlar wrote:
> On Tue, 12 Jul 2005 18:35:52 GMT, Frank Turner-Smith G3VKI
> <g3vki@turner-smith.co.uk> [pass the bag] wrote:
>
>
>
>>I'm not so sure, you must need a massive spew bag after a session with
>>Beanie.
>
>
>
> Even that would pale into insignificance compared to your need.
I'm OK thanks, I just turn the lights off, you must need a gas mask.
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

2685. Re: 6 Meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 00:09:03 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <db1m2vnml1@news.netins.net>
Source record: 73451

A commercial version of this antenna (6m moxon) is available. I put one up last year and am VERY pleased with it. You can find it in the AES catalog (Amateur Electronic Supply). I forget who offers it, but it is something like 79 bucks, if you have neither the time nor the inclination to build one.

...hasan, N0AN
"CWB" <cboone@nospam.earthlink.net> wrote in message
news:wSjAe.135795$PR6.68852@tornado.texas.rr.com...
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:zXhwe.1038$HV1.545@fed1read07...
>> Might try giving us operating parameters.
>>
>> Are u going to operate repeaters only or skip or both?
>> For repeaters and mobiles, you'll want vertical polarization. (Cross
>> polarization can be 12dB or more)
>
> 20+db...not 12! 20db=100:1 power ratio....
>
>> For skip, either vertical or horizontal will do.
>
> Sometimes....depends on the conditions
>
>> I can't put up a Yagi, so I use a Cushcraft AR-6 Ringo, 1/2 wave vertical
>> Your results may vary.
>
> Nowadays, a PAR or KB6KQ is best.....when the band is not open, you want
> to use horizontal pol for best "local" coverage...out to 200+ miles or so
>
>

2686. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 02:06:58 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ZF_Ae.65770$ho.36891@bignews6.bellsouth.net>
Source record: 73453

I had thought about it because I had a 500 ft roll on hand at the time - but changed my mind because research showed zip cord to be high-loss

"pegge" <pegge.j@DELETEtelia.com> wrote in message
news:RYVAe.29028$d5.182116@newsb.telia.net...
> someone tried to feed a type g5rv antenna with &#65533;european&#65533; zip-cord ?
> (european meaning double the Volts compared to USA, thus half amps
> for the same lamp wattage)
> Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
> them up to the dipole part and the the rest X meter to a balanced tuner
etc.
> sorry if this has been up too many times, search did&#65533;nt give a clue!
>
> Tnx for info, 73 Per / sm7aha malmo, sweden
>
>

2687. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 03:48:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d48ff5$1_1@spool9-west.superfeed.net>
Source record: 73452

Jim Kelley wrote:

Jim, you have a habit of erecting strawmen somewhat like:
"I don't care what you say, the sun will rise tomorrow." For that
reason, I'm going to trim the parts of your posting with which I
agree and have never disagreed.

> You take too great a liberty with the name Eugene Hecht. Among the
> things which won't be found in any of Dr. Hecht's texts is a minus sign
> in front of number expressing an irradiance.

Sure wish you would read the book before making such statements.

On the contrary, here's equation (9.16) representing total destructive
interference.

Imin = I1 + I2 - 2*SQRT(I1*I2) = 0

The third term is indeed a minus sign in front of a number expressing
irradiance. However, total average irradiance cannot be less than zero.
And for the record, I have never said total average power could be less
than zero but, like Hecht, I treat destructive interference energy as a
negative term and constructive interference energy as a positive term.

Dr. Stephen Best, VE9SRB, did the same thing for his "Wave Mechanics
of Transmission Lines, Part 3:" QEX article, Nov/Dec 2001. He said:

"When the voltages V1 and V2 are exactly 180 deg out of phase, the
total power can be determined as follows:"

"PFtotal = P1 + P2 - 2*SQRT(P1)*SQRT(P2)"

so if you don't like negative power terms, you should confront both
Eugene Hecht and Dr. Best.

> Nor will we find a
> negative scalar quantity accompanied by the claim that the negative sign
> indicates a change in direction, as you have done.

On the contrary, in equation 9.16 above, according to Hecht, the
interference term is negative indicating "total destructive
interference", his words, not mine. Here's Hecht's quote from _Optics_.

ï¿½The principle of
conservation of energy makes it clear that if there is constructive
interference at one point, the ï¿½extraï¿½ energy at that location must have
come from somewhere else. There must therefore be destructive
interference somewhere else."

Sorry, but a negative interference term denotes destructive
interference. A positive interference term denotes constructive
interference. In a transmission line with only two directions,
if destructive interference occurs in one direction, then
constructive interference must occur in the only other direction
in order to satisfy the conservation of energy principle.

A wave cancellation event in a transmission line implies an equal
constructive interference event in the opposite direction. Anything
else violates the laws of physics.

> Similarly, power and irradiance do not
> physically propagate and they do not physically interact.

On the contrary, they do physically interact for coherent waves as can
be inferred by the interference equations. Please reference Chapter 9
in _Optics_, by Hecht. The mathematical interaction of power and
irradiance is a *result* of superposition of coherent EM waves. That's
where the interference equations involving irradiance come from.

> JC Maxwell and others observed that it is
> electric and magnetic fields which propagate, interact with matter, and
> add algebraically and vectorially.

And contain power equal to ExH. EM waves cannot exist without energy.
If EM waves interact, their energy components interact. Destructive
and constructive interference cannot occur without energy components
which follow the laws of physics.

> Of course the interference equation accurately expresses power and
> irradiance.

That is some progress on your part so there's hope. What you need to
realize is that those interference equations define what happens to
the energy at a match point in a transmission line. Dr. Best kicked
this discussion off by his QEX article. He just didn't realize that
the equations he published were virtually identical to the classical
optical interference equations.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2688. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 04:34:20 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11d96eg2e6r9h5a@corp.supernews.com>
Source record: 73454

Hal Rosser wrote:
> I had thought about it because I had a 500 ft roll on hand at the time - but
> changed my mind because research showed zip cord to be high-loss
>
> "pegge" <pegge.j@DELETEtelia.com> wrote in message
> news:RYVAe.29028$d5.182116@newsb.telia.net...
>
>>someone tried to feed a type g5rv antenna with ï¿½europeanï¿½ zip-cord ?
>>(european meaning double the Volts compared to USA, thus half amps
>>for the same lamp wattage)
>>Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
>>them up to the dipole part and the the rest X meter to a balanced tuner
>
> etc.
>
>>sorry if this has been up too many times, search didï¿½nt give a clue!
>>
>>Tnx for info, 73 Per / sm7aha malmo, sweden
>>
>>
>
>
>
Go for it. I've seen a dipole fed by electric blasting wire. Worked fine.

Dave N WD9BDZ

2689. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 04:40:01 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <ws6dnbh2ppq_BknfRVn-3Q@comcast.com>
Source record: 73455
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Bob Miller wrote:
>
> Yep, those tropical depressions can be rough -- let us know next time
> it rains in Union -- we'll want to see "before & after" pics of your
> tower.
>
> bob
> k5qwg

Hardly even a tropical depression. here is the WEATHER.COM Wind history
for Union (Actually Meridian) for the last few days. I would not call
it a Cat 4 Hurricane, but like every thing Charlie says its an exaggeration

http://www.wunderground.com/history/airport/KMEI/2005/7/12/MonthlyHistory.html#calendar

DATE High Avg Gusts Events
9 24 3 59 Rain , Thunderstorm
10 37 8 28 Rain
11 21 13 20 Rain
12 16 2 30 Thunderstorm

2690. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 04:45:10 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <HKudneuxpbHKAUnfRVn-tw@comcast.com>
Source record: 73456
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:
> President Bush has authorized "Disaster Relief Funds" for 38 counties in
> Mississippi including my county of Newton.
> 1. http://www.wtok.com/home/headlines/1678647.html

NOT FOR DISASTER RELIEF FUNDS but Federal assistance for Debris Removal and Emergency services ... NOT A DISASTER AREA. Nice Exaggeration!

Additionally, Brown said the state and affected local governments in 23 counties are eligible to apply for federal funds to pay 100 percent of the approved costs for debris removal and emergency services related to the hurricane, including requested emergency work undertaken by the federal government, for a period of up to 72 hours.

The 23 counties designated eligible for the assistance include Clarke, Covington, Forrest, George, Greene, Hancock, Harrison, Jackson, Jefferson Davis, Jones, Kemper, Lamar, Lauderdale, Lowndes, Marion, Neshoba, Newton, Noxubee, Pearl River, Perry, Smith, Stone, and Walthall.

2691. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 05:06:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s489d19kpaqr30hg41qrqcvqet7q1elooi@4ax.com>
Source record: 73457

On Tue, 12 Jul 2005 22:48:00 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>> Nor will we find a
>> negative scalar quantity accompanied by the claim that the negative sign
>> indicates a change in direction, as you have done.
>
>On the contrary, in equation 9.16 above, according to Hecht, the
>interference term is negative indicating "total destructive
>interference", his words, not mine. Here's Hecht's quote from _Optics_.

[Hecht rolls his eyes] Jim's point is won, absolutely nothing quoted
here explicitly states a change in direction. That is, as Jim points
out, the math follows the physics, it does not create the physics.
There is a vast gulf between being descriptive and being proscriptive.

2692. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 10:43:15 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <gf6Be.31364$ro.4327@fed1read02>
Source record: 73460
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Charlie" <charlie@earthlink.net> wrote in message
news:11d5gbpnl960keb@news.supernews.com...
> The images are the same yeah...DUH!!
> Since there was no damage.....except perhaps your brain damage.
> You don't catch on too fast do you?
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net

Well, this will be my last post on this thread. I think Charlie has burnt his last shred of credibility by using identical images for "before" and "after" evidence. I'm sure everyone noted that not even a single tree leaf was lost during that disaster, so I suppose Charlie could also claim that his tower is as strong as a leaf, maybe even stronger!

Since Charlie doesn't seem to worry too much about factual evidence, his request for technical comments must have been posted for entertainment value, and in that, he certainly has succeeded. Can we look forward to annual updates posting the same original image, thereby proving that Chuckie has not only built a strong, but an eternal tower?

--
Ed
WB6WSN
El Cajon, CA USA

2693. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 10:56:28 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Fr6Be.31365$ro.9600@fed1read02>
Source record: 73462
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Charlie" <charlie@earthlink.net> wrote in message
news:11d5mhnlemj3e6f@news.supernews.com...
> There are no distortions Ken. The tower looks the same the day before
> Dennis as it does now the day after. The WHOLE POINT in using 2 identical
> photos was to illustrate that there IS NO DIFFERENCE after the storm.
>
> I have been on Usenet for 20 years or more and it is always the
> same....people just wait in the wings to take pot shots at others. I
> posted a link to the tower photos and all I got was ridicule and cuss
> words.
>
> Now that it survived the affects of hurricane Dennis I get accusations
> that Dennis never even came near my home.
> You guys can all go fish..or any other "F" word you might be able to think
> of.
>
> Sorry to rob you all of the splendor of viewing my new tower down on the
> ground.
>
> You fuckers are all a bunch of real sick bastards.
>
> --
>
> Charlie
> Ham Radio - AD5TH
> www.ad5th.com
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net

Yeah, this is definitely my last post on the thread.

Charlie, you are a damn liar. If you go back to the record, you will find that I responded with cogent comment regarding legalities of encroachment, concerns about mechanical stress and inadequacies of base planning. For whatever personal reasons you have, you are incapable of accepting the realistic analyses that you requested.

Here Chuckie, print this and post it on your wall: You've got one tremendous tower, good buddy, and I'm proud to say that I live 2000 miles away from it, and you!

--
Ed
WB6WSN

El Cajon, CA USA

2694. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 11:01:02 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Xv6Be.31366$ro.11006@fed1read02>
Source record: 73463
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"spaceyfi" <spaceyfi5@yahoo.com> wrote in message
news:1121132105.203448.125460@g49g2000cwa.googlegroups.com...
> Definately, sometimes we learn our lessons the hard way.
>
> Susan
> Ham to be
> Husband Leon is KB7YXG
>

Some people, a select few, can repeat the course indefinitely, yet still
rant at the gods over their misfortunes.

--
Ed
WB6WSN
El Cajon, CA USA

2695. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 12:04:52 UTC
From: Big Endian <nospam@nospam.com>
Message-ID: <nospam-6B0EF9.07045213072005@news-rdr-03.rdc-kc.rr.com>
Source record: 73461
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

In article <gf6Be.31364$ro.4327@fed1read02>,
"Ed Price" <edprice@cox.net> wrote:

> "Charlie" <charlie@earthlink.net> wrote in message
> news:11d5gbpnl960keb@news.supernews.com...
> > The images are the same yeah...DUH!!
> > Since there was no damage.....except perhaps your brain damage.
> > You don't catch on too fast do you?
> >
> > --
> >
> > Charlie
> > Ham Radio - AD5TH
> > www.ad5th.com
> > Deep South 2 Meter SSB Net
> > www.deepsouthnet.net
>
>
> Well, this will be my last post on this thread. I think Charlie has burnt
> his last shred of credibility by using identical images for "before" and
> "after" evidence. I'm sure everyone noted that not even a single tree leaf
> was lost during that disaster, so I suppose Charlie could also claim that
> his tower is as strong as a leaf, maybe even stronger!
>
> Since Charlie doesn't seem to worry too much about factual evidence, his
> request for technical comments must have been posted for entertainment
> value, and in that, he certainly has succeeded. Can we look forward to
> annual updates posting the same original image, thereby proving that Chuckie
> has not only built a strong, but an eternal tower?

Me thinks charlie is a kook.

2696. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 12:28:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d509ea$1_1@spool9-west.superfeed.net>
Source record: 73464

Richard Clark wrote:
> [Hecht rolls his eyes]

I'm going to trim and ignore the condescending ad hominem stuff.

> ... the math follows the physics, it does not create the physics.

Your argument has that exact flaw. "What Cecil is describing doesn't exist in the common math model. Therefore, the math model prohibits it from existing in physics." Please follow your own advice. There is a vast gulf between being descriptive and being prohibitive.

> There is a vast gulf between being descriptive and being proscriptive.

I didn't choose to quote the entire book, Richard. Hecht also says: "If two or more electromagnetic waves arrive at point P out-of-phase and cancel, 'What does that mean as far as their energy is concerned?' Energy can be distributed, but it doesnï¿½t cancel out. ... The superposition of coherent waves generally has the effect of altering the spatial distribution of the energy but not the total amount (of energy) present."

"Altering the spatial distribution of the energy" in a transmission line is a binary function since there are only two directions. If the spatial distribution is altered, it necessarily changes directions.

The following does explicitly state a change in direction, i.e. "A NEW DIRECTION".

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index.html

"When two waves of equal amplitude and wavelength that are 180-degrees out of phase with each other meet, they are not actually annihilated. All of the photon energy present in these waves must somehow be recovered or REDISTRIBUTED IN A NEW DIRECTION, according to the law of energy conservation ... Instead, upon meeting, the photons are redistributed to regions that permit constructive interference, so the effect should be considered as a redistribution of light waves and photon energy rather than the spontaneous construction or destruction of light." (Emphasis mine.)

A transmission line has only two directions. If wave cancellation, i.e. permanent destructive interference, takes place in one direction, the necessary corresponding constructive interference must be "redistributed in a new direction". In a transmission line, there is only one "new direction", the opposite direction from the old direction.

--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2697. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 14:47:06 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <1k8ad1tbls6lp2tara0chdg65mqktqejln@4ax.com>
Source record: 73469
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment;charlie@earthlink.net

Hang tough & enjoy your tower Charlie!
If it breaks, fix it. Otherwise enjoy it!

Some day I may get brave and post the pictures of my fold over-crank
up mast with the CushCraft A3 beam on it. It waves around in the wind
like a sailboat mast and flexes the I-beam gantry enough to scare the
clueless when it is time to do antenna work.

When mine breaks, I will either fix or replace, just as I have always
done...

My current worries are lightning and ice.

It has only been up about five years, time will tell.

On Wed, 13 Jul 2005 03:43:15 -0700, "Ed Price" <edprice@cox.net>
wrote:

>
>"Charlie" <charlie@earthlink.net> wrote in message
>news:11d5gbpnl960keb@news.supernews.com...
>> The images are the same yeah...DUH!!
>> Since there was no damage.....except perhaps your brain damage.
>> You don't catch on too fast do you?
>>
>> --
>>
>> Charlie
>> Ham Radio - AD5TH
>> www.ad5th.com
>> Deep South 2 Meter SSB Net
>> www.deepsouthnet.net
>
>
>Well, this will be my last post on this thread. I think Charlie has burnt
>his last shred of credibility by using identical images for "before" and
>"after" evidence. I'm sure everyone noted that not even a single tree leaf
>was lost during that disaster, so I suppose Charlie could also claim that
>his tower is as strong as a leaf, maybe even stronger!
>
>Since Charlie doesn't seem to worry too much about factual evidence, his
>request for technical comments must have been posted for entertainment
>value, and in that, he certainly has succeeded. Can we look forward to
>annual updates posting the same original image, thereby proving that Chuckie
>has not only built a strong, but an eternal tower?

2698. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 15:00:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ataad1l5scgvk05qa4bj5rm8n1lk9suojc@4ax.com>
Source record: 73470

On Wed, 13 Jul 2005 07:28:21 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> There is a vast gulf between being descriptive and being proscriptive.
>I didn't choose to quote the entire book
[Hecht rolls his eyes] That would have been futile because no portion
of it contains the proscription.

What has been offered makes as much sense as ascribing the value of
$100 to a button simply because you sewed it to a jacket and found
$100 in the pocket of that jacket. -Superstition-

2699. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 16:07:10 UTC
From: tjs <anon@anon.net>
Message-ID: <42d5403a_2@news1.prserv.net>
Source record: 73378

I have a 40meter band xmit/recv antenna up with good swr and works great.
Cost me nothing but my time, and a plastic center insulator to strain
releive the zip cord (rather than tie a knot in the cord at the center. Just
rip down 33 ft of zip cord, tie a knot or use the insulator, and cut the
feedlinne section to a integral half wave long (20, 40, 60etc meters long).
If cut to a half wave (use a dip meter) the swr of the dipole will be
translated unaltered to the radio end of your feedline and 70 ohms is OK for
a swr of 1.4 and the xcvr will not care usually.

Great emergency antenna.

"pegge" <pegge.j@DELETEtelia.com> wrote in message
news:RYVAe.29028$d5.182116@newsb.telia.net...
> someone tried to feed a type g5rv antenna with &#65533;european&#65533; zip-cord ?
> (european meaning double the Volts compared to USA, thus half amps
> for the same lamp wattage)
> Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
> them up to the dipole part and the the rest X meter to a balanced tuner
etc.
> sorry if this has been up too many times, search did&#65533;nt give a clue!
>
> Tnx for info, 73 Per / sm7aha malmo, sweden
>
>

2700. Re: Really low SWRs but is it worth trimming the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 17:00:54 UTC
From: tjs <anon@anon.net>
Message-ID: <42d54ccf_2@news1.prserv.net>
Source record: 73379

Your SWRs are great (as the antenna is setup now) dont bother fixing them. A good antenna, maybe with some gain, usually only has a bandwidth of the 40 channels. The SWR will be maybe 2:1 at ch1 then go low to 1:1.4 at ch20 then back to 2:1 at ch 40..will work just fine. Actually your SWRs sound too good to me, for antennas with loading coils.

If you change the antenna the SWR WILL change so you will need to tune it up. You want more gain, in some direction, right? well you're going to loose gain in all the other directions. Focusing the signals by setting up the antenna like in a beam makes the antennas SWR curve narrower, 2:1range may only go from ch10 to ch 30. And the SWR will go up, so you need the gamma match you see on the driven elements to fix the problem.

Apparently Peneterators are 12 ft long, with a load in the center (a lousy compromise). There would be a matching coil at the base probably too whether theyre 1/2 wave or 5/8th antennas. A real 5/8th antenna will be 21 ft high with no loading coils, dont skimp on heighth .

If they are 5/8th antennas and you have mounted these base to base then you have made an Extended Double Zepp which has gain of maybe 4-6db (2.5-4X signal gain) and can focus the signals on the horizon (I assume these are mounted vertically not horizontally out from the sides of a tower). you would need to put the base to base mount at least 40ft off the ground, one pointing up/one down.

Adding a director or reflector will not do much for you, since you already have pretty good antenna (assuming its working right!) A Zepp antenna (end to end 5/8th antennas, 42 ft long) is a great vertical if high enough and it puts you power on the horizon.

"Blue Dawg" <thecowboyace@yahoo.com> wrote in message
news:1120820642.403459.107860@g49g2000cwa.googlegroups.com...
> I am running a President Grant am/usb/lsb and on Channel 1 the SWR is
> 1:0.08, on Channel 40 it is 1:1.45 and on Channel 19 it is 1:1.09. It
> really isn't worth doing an adjustment on this antenna setup is there?
> The antenna is a single Yagi beam made up of two Tram Penetrators
> (Monkey Made's). I think that it is sold as a 1/2 wave antenna and
> have heard that it is a 5/8 wave. This antenna can be set for 10 meter
> usage also. It really looks weird up there without a reflector on it.
> I may put a reflector on it but am stumped as to length of the
> reflector (ging to be made of 1/2" electrical conduit). I can't find
> the formula for the length taking into consideration of the diameter of
> the reflector. I believe that the 'stand-by' one should use 468/f.
> Using 27.185 (Chl 19) the length should be 17.22 feet. Only thing is
> the length of the driven element is less than 12' because of the
> antennas having the centerload coil in them.

>
> What do you think?
>

2701. J Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 18:15:47 UTC
From: dgbirky@voyager.net
Message-ID: <1121278547.353890.29470@g49g2000cwa.googlegroups.com>
Source record: 73458

I have a copper tube J pole for 2m. Is there a good way to convert it
to 2M/440?
Thanks,
Doug
KC8YEC

2702. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 18:18:55 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d55ad8_3@x-privat.org>
Source record: 73388
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

You have to make allowances for Mrs.Nugatory. As always,
I responded very quickly to a genuine request for help, but
responded to the lead given by the questioner who
mentioned spring/damper rather than spring/mass, and so
I responded off-the-cuff without too much forethought.

Better a quick response than none at all, or a response that
had the hallmarks of a 13-year old mind that requires a
literal meaning for everything, as does Mrs.Nugatory!

I acknowledged the error in a subsequent posting but Mrs. Nugatory
is a chronic paranoid obsessive who latches onto every thing that I say,
and hounds the thing to death, as she is doing below, many months
after the ephemeral chit-chat has ceased to have any relevance.

For example, if you seek out the time that I alerted Usenet users to
the availability of cheap dehumidifiers, Mrs.Nugatory managed to spin out
over 50 pages of insistence that I knew nothing about them!

Mentally deranged, or what!

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:99iAe.145698$on1.40186@clgrps13...
> "Spike" <Aero.Spike@Technologies.invalid> wrote in message
> news:4873d1lhsk6hma9on1pfuvr5d6gae927t2@4ax.com...
>> Polly parrotted:
>>
>>>Actually, just did a quick webbing and found enough to
>>>realise that the claims are founded upon feet of clay.....
>>>
>>>1. You do not separately excite the E and H fields because
>>>if you excite an E field, you get a corresponding H field, and
>>>vice-versa,
>>>even if it is your intention to excite separately.
>>
>> Can this be the same idiot who thought that a spring/damper
>> combination was the mechanical equivalent of a coil and capacitor, on
>> the grounds that they both exhibited resonance?
>>
>> from
>> Aero Spike
>
> The spring and damper can be exactly model as an electrical analog; as can
> virtually any physical system. As a reference refer to "Dynamics of
> Physical Circuits and Systems", by Lindsay and Katz at Concordia

> University, Montreal. ISBN 0-916460-21-5 published by Matrix of
> Beaverton OR.
>
> Frank
>

2703. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 18:39:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8jnad1d971kvragrrgssh00628j13tsfdm@4ax.com>
Source record: 73381

On Wed, 13 Jul 2005 13:50:03 -0400, "Walter Maxwell" <walt@w2du.com>
wrote:

>This is a multi-part message in MIME format.
Why? Because you are using that POS Outlook Express again! :-(

> Why do you think the SWR of the dipole will be unaltered at the radio =
>end of the feedline? You are apparently ignoring the loss in the line =
>that makes the SWR at the radio end less than that at the dipole =
>terminals.
>
> If the zip cord had zero loss the SWR would be the same everywhere =
>along the line, only the terminal impedance at the radio end would be =
>the same as at the dipole.
>
> Without knowing the vf (velocity factor) of the zip cord how do you =
>determine that the length is a half wave?
>
> And last, why would you want the length to be a half wave?=20
>
> Walt, W2DU

And your posting mentions nothing in it that suggests why there is a
GIF attachment which may be infected.

Walt,

This is like running full power deliberately into a 10:1 mismatch:
15 lines of content does not warrant a 156 line posting.

73's
Richard Clark, KB7QHC

2704. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 18:50:49 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <db3nquhed1@news.service.uci.edu>
Source record: 73385

Cecil Moore wrote:

> "PFtotal = P1 + P2 - 2*SQRT(P1)*SQRT(P2)"
>
> so if you don't like negative power terms, you should confront both
> Eugene Hecht and Dr. Best.

Don't be foolish. Obviously neither of the P terms can be negative if PFtotal is supposed to represent a real number. I have no issues to confront with either of the gentlemen. It is where you diverge from Hecht (and Maxwell, and Born and Wolfe, and Jackson) that I take issue.

>> Nor will we find a negative scalar quantity accompanied by the claim
>> that the negative sign indicates a change in direction, as you have done.
>
>
> On the contrary, in equation 9.16 above, according to Hecht, the
> interference term is negative indicating "total destructive
> interference", his words, not mine. Here's Hecht's quote from _Optics_.

One statement does not contradict the other, as the subject in each sentence is entirely different. Both statements are obviously true.

>> Similarly, power and irradiance do not physically propagate and they
>> do not physically interact.
>
>
> On the contrary, they do physically interact for coherent waves as can
> be inferred by the interference equations. Please reference Chapter 9
> in _Optics_, by Hecht. The mathematical interaction of power and
> irradiance is a *result* of superposition of coherent EM waves. That's
> where the interference equations involving irradiance come from.

As I explained they come from the fact that the fields interact, and that power and intensity (or irradiance) go as the square of the field. Lets say the square of F1 (field 1) is proportional with P1, and the square of F2 is proportional with P2. And lets say the mathematical description of the way the two fields interact is as follows: Ftotal = (F1 - F2)*(F1 - F2). (Looks kinda like modulation, but I digress.) We can then write that as Ftotal = F1^2 + F2^2 - 2*F1*F2. By substitution then, PFtotal = P1 + P2 - 2*SQRT(P1*P2). And that's where your favorite equation comes from.

73, ac6xg

2705. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:14:07 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d569ce$1_3@x-privat.org>
Source record: 73386
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Absolutely unique"

"Utterly obliterated"

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42d3c6fd$1_2@spool9-west.superfeed.net...
> Reg, IMO, only a naive person would ever use the words,
> "absolutely sure". :-)

2706. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:16:56 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d569cf$1_3@x-privat.org>
Source record: 73387
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Which accounts for the place-name "The Butts" to be found
in many towns.

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11d3c2korn62158@corp.supernews.com...
> Wow! Check your history. Once it was a requirement for persons in
> England
> to be armed. Practice was also compulsory.
>

2707. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:21:34 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d569cf$3_3@x-privat.org>
Source record: 73390
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Pound = Pound Weight, mass of one pound, acceleration (due to gravity)
of 32 ft/sec^2

Poundal = mass of one pound, acceleration of 1 ft/sec^2

(Cue Mrs.Nugatory to dive in with a 13-year-old's ridiculous
insistence on literal detail?)

Pound, Money = sort of like a dollar, but twice as valuable and more robust.

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11d3uubthg00468@corp.supernews.com...
> I continue to be in awe of MEs who
> always seem to know whether the "pounds" they are talking of are
> sort-of-like mass, or sort-of-like force, or money.

2708. Re: Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:28:10 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d56b67_3@x-privat.org>
Source record: 73383

Eschew obfuscation!

"David J Windisch" <davidjw@cinci.rr.com> wrote in message
news:xBrAe.12737$zY4.8356@tornado.ohiordc.rr.com...
> To all the fellas who eschew anonymity, embrace civility, keep humor dry
> and non-anatomical, occasionally expose the anon nitwits and their
> nitwit-eries ... and who post interesting stuff here.
>
> 73, Dave, N3HE
> Cincinnati OH
>
>

2709. Re: Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:29:05 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d56b68_3@x-privat.org>
Source record: 73382

I'd give my right arm to be ambidextrous.

"TimPerry" <timperry@noaspamadelphia.net> wrote in message
news:mZudnRycK_JmT07fRVn-sQ@adelphia.com...
>
> Dry humor? I'll drink to that
>
>

2710. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:51:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ee782$42d570c2$97d55ac3$21439@ALLTEL.NET>
Source record: 73389
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Actually $1.76 as of today, but used to be worth $2.40.
Any country too politically correct to call a terrorist a terrorist is not long for the world.

Tis a real shame the spawn of a great people that endured so much with the "stiff upper lip" are a bunch of wimps!

"Polymath" <invalid@invalid.invalid> wrote in message news:42d569cf$3_3@x-privat.org...

> Pound, Money = sort of like a dollar, but twice as valuable and more robust.
>

2711. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 19:51:57 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <mieBe.7895$rX7.1087@fe06.lga>
Source record: 73384
Body handling: Inline uuencoded payload not displayed: p.gif

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:8jnad1d971kvragrrgssh00628j13tsfdm@4ax.com...
> On Wed, 13 Jul 2005 13:50:03 -0400, "Walter Maxwell" <walt@w2du.com>
> wrote:
>
> > And last, why would you want the length to be a half wave?=20
> >
> > Walt, W2DU
>
> And your posting mentions nothing in it that suggests why there is a
> GIF attachment which may be infected.
>
> Walt,
>
> This is like running full power deliberately into a 10:1 mismatch:
> 15 lines of content does not warrant a 156 line posting.
>
> 73's
> Richard Clark, KB7QHC

Richard, I can't imagine why you'd see a 156 line posting. I deleted everything except 12 lines above my posting. And 12 are all that come up when I review my post. Something musta happened that I'm not aware of.

However, I will confess that I overlooked a GIF attachment. I have never claimed that I could go through an entire day without screwing something up.

Walt

[Inline uuencoded payload not displayed: p.gif]

2712. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 20:12:28 UTC
From: zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net
Message-ID: <42d57505.3837622@news.iol.ie>
Source record: 73459
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Fred W4JLE" <w4jle@w4jle.com> wrote:

: Actually $1.76 as of today, but used to be worth $2.40.
: Any country too politically correct to call a terrorist a terrorist is not
: long for the world.

So... in a NON-POLITICAL way please describe those people of the mid
to late 1700's who went around shooting soldiers who wore REDCOATS and
GOVERNED a land the that was at one stage part of the GREAT BRITISH
EMPIRE and had as one of its main cities BOSTON ?

2713. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 20:17:59 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <XFeBe.158$s9.128@newsfe3-gui.ntli.net>
Source record: 73468
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Poly no maths wrote:
<libel and general crap snipped >
>
> Mentally deranged, or what!
>
Remind us please, what were you saying about libel in your 'Formal
Warning' earlier today?
--
...(_!_)...

2714. NEC good for modeling STLs??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 20:21:56 UTC
From: n7dai@comcast.net
Message-ID: <1121286116.913758.137580@g43g2000cwa.googlegroups.com>
Source record: 73465

Hi, all --

Looking for guidance: I want to do some virtual experimenting with small transmitting loops before I start welding up a few of the real things. Questions:

* Is NEC, or one of its children, good for this sort of work?

* Do I need NEC/4, or will NEC/2 do?

* Can models handle curved conductors? If I have to enter a zillion straight segments, OK, but I'd rather not.

* Will the model handle lumped impedances, e.g. the matching capacitor at the far side of the loop?

* Does NEC take Q issues (conductor resistance, capacitor leakage) into account?

* Can I usefully model over ground (ideal and real)? I have read claims that STLs aren't affected by height-above-terrain, and I rather suspect that it simply hasn't been convenient to hang the contraptions half a lambda in the air, and the writers are just whistling past the antenna range.

...I guess that's about enough topics to start a thread. Thanks.

-- Dai N7DAI

2715. Beam tilting

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 20:40:08 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <I_eBe.161061$XQ.3273869@twister.southeast.rr.com>
Source record: 73466

Is there any advantage to tilting a beam antenna up or down to match the anetnna's elevation angle of maximum gain to the angle of the received signal? It looks like the answer is yes but not enough to justify the trouble/expense (unless you are tracking a satellite).

Ron, W4TQT

2716. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 20:41:02 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42d57c5f$0$22201$39cecf19@news.twtelecom.net>
Source record: 73467

Walter Maxwell wrote:

>
> Richard, I can't imagine why you'd see a 156 line posting. I deleted
> everything except 12 lines above my posting. And 12 are all that come up
> when I review my post. Something musta happened that I'm not aware of.
>
> However, I will confess that I overlooked a GIF attachment. I have never
> claimed that I could go through an entire day without screwing something up.
>
> Walt

Walt

Both this post and your previous one look fine on Mozilla; no huge
number of lines. A file called p.gif is coming along with it, though.

tom
K0TAR

2717. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 20:59:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gesad1hf0qv1kfapkj92p95vff08595c7l@4ax.com>
Source record: 73471
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 13 Jul 2005 20:21:34 +0100, "Polymath"
<invalid@invalid.invalid> wrote:
>Pound, Money = sort of like a dollar, but twice as valuable
today: $1.77 (down 10% since Christmas shopping)
>and more robust.
What a con job.
100 years ago, today: $4.87
40 years ago, today: $2.80
30 years ago, today: $2.20
20 years ago, today: $1.39
10 years ago, today: $1.60

Robust must mean slumped by 63% - One Time Constant?

Any boost of some 11% in the past decade certainly has to be
attributable to the White House running the printing presses full
steam.

73's
Richard Clark, KB7QHC

2718. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:10:26 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <KYudnabzMOHeHkjfRVn-hQ@comcast.com>
Source record: 73375
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Fred W4JLE wrote:
> So now the actions of the government are responsible for your profanity? Get
> a life!
>
> You are a foul mouthed person with limited ability to express yourself with
> out profanity, that failing, you resort to hyperbole and rants against the
> government.

You seem to have a reading comprehension problem, Fred. Nowhere did I
say that "the actions of the government are responsible" for anything I
do. I simply gave an example of the rampant hypocrisy and the false
morals of the so-called social conservatives whose actions somehow don't
match their alleged morality and perceived social and moral superiority.
Anything else you're reading into this is your own construct.
The reason I cited that example is because it is almost identical to
your rants against my "profanity", "gutter language" and "foul mouth".
For some strange reason you social conservatives are unable to grasp the
simple concept of *not* reading/watching/viewing/listening to whatever
offends you. Is that so difficult?

>>>Your profanity speaks more about you than your comments on the radio
>
> tower.
>
>>It speaks to the people who, to cite just one recent example, go berserk
>>and express outrage over a half a breast on national TV, yet fall
>>strangely silent when their government invades a sovereign country using
>>false premises and manufactured evidence, or attempts to legalize torture.
>>
>>Do you really think I care what the Taliban of any religious persuasion
>>think about me?

And what's with top-posting?

73 ... Zoran WA7AA

2719. Feed point chokes for J-poles: how close?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:18:33 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrnddb199.kj.ben@saturn.home.ben.com>
Source record: 73473

In a multi-band J-pole (where higher frequency j-poles are basically
mounted on the long leg of the next lower frequency leg) can the feedpoint
chokes for all the bands be located at the base of the antenna, or do they
need to be kept right by the J's for each band? The "copper cactus" has
the feeds running up the center pole and poking out holes in the tube
for each feedpoint. That would require putting the chokes at the base of
the mounting stub.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

2720. Re: NEC good for modeling STLs??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:26:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11db1nh92d6pvde@corp.supernews.com>
Source record: 73474

n7dai@comcast.net wrote:
> Hi, all --
>
> Looking for guidance: I want to do some virtual experimenting
> with small transmitting loops before I start welding up a few of
> the real things. Questions:
>
> * Is NEC, or one of its children, good for this sort of work?

Yep, providing that if there's more than one turn, the spacing between turns is at least a wire diameter or two.

> * Do I need NEC/4, or will NEC/2 do?

NEC-4 will handle somewhat smaller loops, but double precision or mixed precision NEC-2 will probably be adequate. NEC-2 is free; NEC-4 is several hundred dollars.

> * Can models handle curved conductors? If I have to enter a
> zillion straight segments, OK, but I'd rather not.

Conductors must be straight, but NEC-2 has the provision for automatically generating segments in a circle if you can figure out how to do it. EZNEC (my program) fully automates the process.

> * Will the model handle lumped impedances, e.g. the matching
> capacitor at the far side of the loop?

Yes.

> * Does NEC take Q issues (conductor resistance, capacitor
> leakage) into account?

Only to the extent that you know them and therefore can tell the program how large the loss resistance or conductance is.

> * Can I usefully model over ground (ideal and real)? I have read
> claims that STLs aren't affected by height-above-terrain, and I
> rather suspect that it simply hasn't been convenient to hang the
> contraptions half a lambda in the air, and the writers are just
> whistling past the antenna range.

Yes.

I recommend that you download the free EZNEC demo program from http://eznec.com. It's adequate to do the modeling you describe, provided that the loop has only one or two turns. There's no time limit or restriction on its use. And it includes the full EZNEC manual.

Roy Lewallen, W7EL

2721. Re: Beam tilting

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:26:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11db1oj5qn6greb@corp.supernews.com>
Source record: 73472

No.

Roy Lewallen, W7EL

Ron wrote:
> Is there any advantage to tilting a beam antenna up or down to match the
> anetnna's elevation angle of maximum gain to the angle of the received
> signal? It looks like the answer is yes but not enough to justify the
> trouble/expense (unless you are tracking a satellite).
>
> Ron, W4TQT
>

2722. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:40:02 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <KRfBe.53113$qm.5516@bignews5.bellsouth.net>
Source record: 73376

"Walter Maxwell" <walt@w2du.com> wrote in message
news:3wcBe.4995$5R1.2280@fe07.lga...

"tjs" <anon@anon.net> wrote in message news:42d5403a_2@news1.prserv.net...
> I have a 40meter band xmit/recv antenna up with good swr and works great.
> Cost me nothing but my time, and a plastic center insulator to strain
> releive the zip cord (rather than tie a knot in the cord at the center.
Just
> rip down 33 ft of zip cord, tie a knot or use the insulator, and cut the
> feedlinne section to a integral half wave long (20, 40, 60etc meters
long).
> If cut to a half wave (use a dip meter) the swr of the dipole will be
> translated unaltered to the radio end of your feedline and 70 ohms is OK
for
> a swr of 1.4 and the xcvr will not care usually.
>
> Great emergency antenna.

>>Why do you think the SWR of the dipole will be unaltered at the radio end
of the feedline? You are apparently >>ignoring the loss in the line that
makes the SWR at the radio end less than that at the dipole terminals.

>>If the zip cord had zero loss the SWR would be the same everywhere along
the line, only the terminal impedance at >>the radio end would be the same
as at the dipole.

>>Without knowing the vf (velocity factor) of the zip cord how do you
determine that the length is a half wave?

>>And last, why would you want the length to be a half wave?

>>Walt, W2DU

I think he was correct about the half-wave length of feedline:
according to the ARRL Antenna Book - 17th edition copyright 1994 - page
24-12 in chapter 24, under the Heading "Special Cases" and under the
sub-heading "The Half-WaveLength Line", it pretty clearly states that
regardless of z, it will be the same on both ends of a half-wave line. and
sections having such length can be added or removed without changing the
load Z. (as long as loss is negligible)

Also - You don't need to know the VF if you use a dip meter (or MFJ 259) -
And he would want the length to be half-wave so as to be able to ignore the
characteristic impedence of the zip line and deal directly with the
impedence of the dipole directly.

2723. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:40:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fm0bd1hejp2ibiaj4uhh2f41k6hr33v7cv@4ax.com>
Source record: 73377
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 13 Jul 2005 20:12:28 GMT,
zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net
(ZZZZPK) wrote:

>So... in a NON-POLITICAL way please describe those people of the mid
>to late 1700's who went around shooting soldiers who wore REDCOATS and
>GOVERNED a land the that was at one stage part of the GREAT BRITISH
>EMPIRE and had as one of its main cities BOSTON ?

Hmmm,

The British Empire must, as one would expect, have an Emperor, and
particularly a British Emperor. If we scan the list of Royals over
time, certainly Britain had an Emperor (Carausius) during the Roman
era (hardly worth claiming as being British when you bend your knee to
Rome and that empire didn't even claim Wales).

Nearly as far back ago, there was a ship called Emperor.

There are a specie of penguins called Emperor.

Almost 100 years ago there was a George who went by Emperor and like
our own was numbered. But it wasn't George Trois, in fact it was
suggested that this George adopt the title "Emperor of the British and
Hanoverian Dominions," but he refused (and this suggestion only came
after 1802).

If we rummage around the list of Monarchs, then we find our recent
George, and Edward before him were "Emperors" and only of India. The
first "Emperor" was in fact an Empress (of that same named India).

So, by the question above, it must be discerned that in fact no one
ever took up arms against a GREAT BRITISH EMPIRE nor a MODEST BRITISH
EMPIRE nor even a PIDDLIN' BRITISH EMPIRE. So this usage of BRITISH
EMPIRE must in some sense mean the East India Trading Company (since
the only monarchs called Emperor/Empress are uniquely associated with
that sole state in our antipodes. The East India Trading Company held
property in Hudson Bay, so to put this presumed conflict into the
desired NON-POLITICAL way
Canadian (the people, not the political country) Consumers
revolting against a commercial entity - eh? What a bunch of hosers.

73's
Richard Clark, KB7QHC

2724. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 21:56:13 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <82c63$42d58e10$97d55ac3$28484@ALLTEL.NET>
Source record: 73380
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

We, or more correctly our forefathers, were patriots as far as we were concerned, revolutionists, ingrates, and other labels as perceived by the British oppressors.

In this case I can give you a few for this situation ; terrorist, raghead, Muslim extremist. Take your pick.

"ZZZZPK "
<zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net> wrote in message news:42d57505.3837622@news.iol.ie...
> "Fred W4JLE" <w4jle@w4jle.com> wrote:
>
> : Actually $1.76 as of today, but used to be worth $2.40.
> : Any country too politically correct to call a terrorist a terrorist is not
> : long for the world.
>
>
> So... in a NON-POLITICAL way please describe those people of the mid
> to late 1700's who went around shooting soldiers who wore REDCOATS and
> GOVERNED a land the that was at one stage part of the GREAT BRITISH
> EMPIRE and had as one of its main cities BOSTON ?
>
>
>

2725. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 22:28:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v75bd1docahv9dqlb4nj1aehmde8n304qj@4ax.com>
Source record: 73392
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 13 Jul 2005 17:56:13 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
>In this case I can give you a few for this situation ; terrorist, raghead,
>Muslim extremist. Take your pick.

The raghead is the one at the right in:
http://www.hantmans.com/media/040515_white/hires/SpiritOf76_rgbHIRES.jpg
the other two are probably the remaining names.

2726. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 22:37:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <3JgBe.1911$Rv7.1278@newssvr21.news.prodigy.com>
Source record: 73391
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Fred W4JLE wrote:
> Actually $1.76 as of today, but used to be worth $2.40.
> Any country too politically correct to call a terrorist a terrorist is not
> long for the world.
>
>
> Tis a real shame the spawn of a great people that endured so much with the
> "stiff upper lip" are a bunch of wimps!
>
> "Polymath" <invalid@invalid.invalid> wrote in message
> news:42d569cf$3_3@x-privat.org...
>
>
>>Pound, Money = sort of like a dollar, but twice as valuable and more
>
> robust.
>
>
>

Anyone who underestimates the toughness, tenacity, and resilience of the
British people is a fool. The Irish Republican Army waged a terrorist
campaign against London for years without having any effect
whatsoever on British resolve. While I'm no fan of the British,
I'd like to see some of our whining, sweat-drenched, paranoid
patriots make a stab at doing even half as well.
73,
Tom Donaly, KA6RUH

2727. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 22:44:27 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <fPgBe.1912$Rv7.568@newssvr21.news.prodigy.com>
Source record: 73393
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard Clark wrote:

> On Wed, 13 Jul 2005 20:21:34 +0100, "Polymath"
> <invalid@invalid.invalid> wrote:
>
>>Pound, Money = sort of like a dollar, but twice as valuable
>
> today: $1.77 (down 10% since Christmas shopping)
>
>>and more robust.
>
> What a con job.
> 100 years ago, today: $4.87
> 40 years ago, today: $2.80
> 30 years ago, today: $2.20
> 20 years ago, today: $1.39
> 10 years ago, today: $1.60
>
> Robust must mean slumped by 63% - One Time Constant?
>
> Any boost of some 11% in the past decade certainly has to be
> attributable to the White House running the printing presses full
> steam.
>
> 73's
> Richard Clark, KB7QHC

The U.K. is in much better shape financially than
the United States. It's in most country's interest
to keep their currency cheap in relation to the
dollar. They can sell more widgets that way.
73,
Tom Donaly, KA6RUH

2728. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 23:03:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sa7bd1pc7qjc8c82f5m6l1bcn94aqd1sfb@4ax.com>
Source record: 73394
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 13 Jul 2005 22:44:27 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

> It's in most country's interest
>to keep their currency cheap in relation to the
>dollar.

Hi Tom,

Seems to be the white house monetary policy too (I wonder if they know
we use the dollar?).

73's
Richard Clark, KB7QHC

2729. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 23:22:57 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <lnhBe.1925$Rv7.1007@newssvr21.news.prodigy.com>
Source record: 73395
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard Clark wrote:
> On Wed, 13 Jul 2005 22:44:27 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>It's in most country's interest
>>to keep their currency cheap in relation to the
>>dollar.
>
>
> Hi Tom,
>
> Seems to be the white house monetary policy too (I wonder if they know
> we use the dollar?).
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
I think the only currency they understand
is oil, which just appreciated mightily against the
dollar.
73,
Tom Donaly, KA6RUH

2730. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-13 23:39:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tk8bd1hkt7i4hb5ckln0vm4fr1cnuedohn@4ax.com>
Source record: 73396
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 13 Jul 2005 23:22:57 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Richard Clark wrote:
>> On Wed, 13 Jul 2005 22:44:27 GMT, "Tom Donaly"
>> <dtdonaly@sbcglobal.net> wrote:
>>
>>
>>>It's in most country's interest
>>>to keep their currency cheap in relation to the
>>>dollar.
>>
>>
>> Hi Tom,
>>
>> Seems to be the white house monetary policy too (I wonder if they know
>> we use the dollar?).
>>
>> 73's
>> Richard Clark, KB7QHC
>
>Hi Richard,
> I think the only currency they understand
>is oil, which just appreciated mightily against the
>dollar.
>73,

Hi Tom,

Funny about that. Before the election, the cost of Gas taxes pushing
a gallon over $2 would cripple us. Instead we pay $2.50 and the
economy is just fine thank you and the arabs get more than the tax
revenue we didn't add. Let's see, we pay them more, take in less tax,
and add a 10 year off-budget item of $100 Billion. Sounds like
Osama's slush fund is doing better than the market. Could be the
golden investment for social security diversion if you didn't end up
in a Git'mo rest home for the aged financial supporters of terrorism.
Who knows? Filling up your gas tank could get you to the tropics
sooner than you might imagine. Flown there on 'Merican Oil? (Such
irony anticipated in the goofs there too.)

A trillion here, and a trillion there, and soon you are talking about
real money.... Let's see, if a million monkeys printed a million
dollars a decade, how much would a banana cost by the next election?

There's one chimp that doesn't care.

73's
Richard Clark, KB7QHC

2731. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 00:04:48 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <n%hBe.5050$5R1.4102@fe07.lga>
Source record: 73397
Body handling: Inline uuencoded payload not displayed: p.gif

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:KRfBe.53113$qm.5516@bignews5.bellsouth.net...
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:3wcBe.4995$5R1.2280@fe07.lga...
>
> "tjs" <anon@anon.net> wrote in message
news:42d5403a_2@news1.prserv.net...
> > I have a 40meter band xmit/recv antenna up with good swr and works
great.
> > Cost me nothing but my time, and a plastic center insulator to strain
> > releive the zip cord (rather than tie a knot in the cord at the
center.
> Just
> > rip down 33 ft of zip cord, tie a knot or use the insulator, and cut
the
> > feedlinne section to a integral half wave long (20, 40, 60etc meters
> long).
> > If cut to a half wave (use a dip meter) the swr of the dipole will be
> > translated unaltered to the radio end of your feedline and 70 ohms is
OK
> for
> > a swr of 1.4 and the xcvr will not care usually.
> >
> > Great emergency antenna.
>
> >>Why do you think the SWR of the dipole will be unaltered at the radio
end
> of the feedline? You are apparently >>ignoring the loss in the line that
> makes the SWR at the radio end less than that at the dipole terminals.
>
> >>If the zip cord had zero loss the SWR would be the same everywhere
along
> the line, only the terminal impedance at >>the radio end would be the
same
> as at the dipole.
>
> >>Without knowing the vf (velocity factor) of the zip cord how do you
> determine that the length is a half wave?
>
> >>And last, why would you want the length to be a half wave?
>
> >>Walt, W2DU

>
> I think he was correct about the half-wave length of feedline:
> according to the ARRL Antenna Book - 17th edition copyright 1994 -
page
> 24-12 in chapter 24, under the Heading "Special Cases" and under the
> sub-heading "The Half-WaveLength Line", it pretty clearly states that
> regardless of z, it will be the same on both ends of a half-wave line.
and
> sections having such length can be added or removed without changing
the
> load Z. (as long as loss is negligible)
>
> Also - You don't need to know the VF if you use a dip meter (or MFJ
259) -
> And he would want the length to be half-wave so as to be able to ignore
the
> characteristic impedence of the zip line and deal directly with the
> impedence of the dipole directly.

Sorry, OM, as I told Richard in the above post, this hasn't been one of my better days. I read that you used the MFJ 259 to measure the length, but it just didn't register until Hall pushed it into my face. Tnx, Hal. I promise not to get out of bed tomorrow. How much harm can I do there? Don't answer that question.

Walt

[Inline uuencoded payload not displayed: p.gif]

2732. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 01:03:48 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <URiBe.2063$mN1.28@newssvr13.news.prodigy.com>
Source record: 73398
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard Clark wrote:
> On Wed, 13 Jul 2005 23:22:57 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Richard Clark wrote:
>>
>>>On Wed, 13 Jul 2005 22:44:27 GMT, "Tom Donaly"
>>><dtdonaly@sbcglobal.net> wrote:
>>>
>>>
>>>
>>>>It's in most country's interest
>>>>to keep their currency cheap in relation to the
>>>>dollar.
>>>
>>>
>>>Hi Tom,
>>>
>>>Seems to be the white house monetary policy too (I wonder if they know
>>>we use the dollar?).
>>>
>>>73's
>>>Richard Clark, KB7QHC
>>
>>Hi Richard,
>> I think the only currency they understand
>>is oil, which just appreciated mightily against the
>>dollar.
>>73,
>
>
> Hi Tom,
>
> Funny about that. Before the election, the cost of Gas taxes pushing
> a gallon over $2 would cripple us. Instead we pay $2.50 and the
> economy is just fine thank you and the arabs get more than the tax
> revenue we didn't add. Let's see, we pay them more, take in less tax,
> and add a 10 year off-budget item of $100 Billion. Sounds like
> Osama's slush fund is doing better than the market. Could be the
> golden investment for social security diversion if you didn't end up
> in a Git'mo rest home for the aged financial supporters of terrorism.
> Who knows? Filling up your gas tank could get you to the tropics

> sooner than you might imagine. Flown there on 'Merican Oil? (Such
> irony anticipated in the goofs there too.)
>
> A trillion here, and a trillion there, and soon you are talking about
> real money.... Let's see, if a million monkeys printed a million
> dollars a decade, how much would a banana cost by the next election?
> There's one chimp that doesn't care.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
Indeed. If you're hopelessly in debt, there's one
thing that is guaranteed to save you: runaway inflation. It
worked after Viet Nam and it will work after Iraq.
73,
Tom Donaly, KA6RUH

2733. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 01:36:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d5c2b1$1_1@spool9-west.superfeed.net>
Source record: 73399

Jim Kelley wrote:
> It is where you diverge from
> Hecht (and Maxwell, and Born and Wolfe, and Jackson) that I take issue.

I don't diverge from them, Jim. I have simply tied a few loose
ends together using logical deduction based on the laws of physics.
So far, you have produced zero instances where I diverge from
the laws of physics. OTOH, you appear to have diverged quite often,
e.g. Maxwell's equations prove that standing waves can exist without
a rearward-traveling wave, cancelled waves don't contain energy or
momentum before they are cancelled, reflected waves are not re-
reflected by wave cancellation, there is no before and after, etc.

> PFtotal = P1 + P2 - 2*SQRT(P1*P2). And that's where your favorite
> equation comes from.

I have said all along that energy cannot be separated from the waves
containing the energy and that's why an energy analysis is possible.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2734. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 01:46:45 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <db4gcr$t5n$1@news.service.uci.edu>
Source record: 73400

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> It is where you diverge from Hecht (and Maxwell, and Born and Wolfe,
>> and Jackson) that I take issue.
>
>
> I don't diverge from them, Jim. I have simply tied a few loose
> ends together using logical deduction based on the laws of physics.

Yes, Richard described that process pretty accurately I thought.

> So far, you have produced zero instances where I diverge from
> the laws of physics.

I produced three just yesterday.

> OTOH, you appear to have diverged quite often,
> e.g. Maxwell's equations prove that standing waves can exist without
> a rearward-traveling wave, cancelled waves don't contain energy or
> momentum before they are cancelled, reflected waves are not re-
> reflected by wave cancellation, there is no before and after, etc.

Please provide exact quotes. Otherwise, you're taking liberties with
the truth.

> I have said all along that energy cannot be separated from the waves
> containing the energy and that's why an energy analysis is possible.

Yes you have said that, whatever it means. Born and Wolf has an
interesting comment in the section on total reflection. "...the
electromagnetic field in the second medium does not disappear, only
there is no longer a flow of energy across the boundary."

73, ac6xg

2735. 20m 5el Yagi Question: Gain vs Height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 02:40:17 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <kgkBe.8782$Eo.6158@fed1read04>
Source record: 73401

I was modeling a 5el 20m yagi. I changed antenna
height over realistic ground. As I expected, lowering
from 50' to 25' changed the take off angle from 18
degrees to 28 degrees.

What suprised me was the forward gain went from
14.44 dbi (@50') to 12.63 dbi (@25').

Is this normal?

--
Just my 2�... 73 es gd dx de Ken KG�WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

2736. Coax Cable, Connector & Adapter Catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 03:14:47 UTC
From: AAA RF Products <info@aaarfproducts.com>
Message-ID: <sLkBe.8787$Eo.8606@fed1read04>
Source record: 73402
Cross-posted to: alt.audio.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap

Please email or call for your free copy of our latest coax connector,
adapter, cable assembly & bulk coaxial cable catalog.

No minimum order

No handling fees.

email: sales@aaarfproducts.com
call: 949 481 3154
fax: 949 388 5448
mail: AAA RF Products, 949 Calle Amanecer, San Clemente, CA 92673 USA

2737. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 03:34:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d5de67$1_1@spool9-west.superfeed.net>
Source record: 73403

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> So far, you have produced zero instances where I diverge from
>> the laws of physics.
>
> I produced three just yesterday.

Most of your past objections are personal opinions that
have been based on a lack of understanding of what I was
saying. Please list just one law of physics from which
I have diverged. I do not think you can do that.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2738. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 03:54:19 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <DklBe.58907$qm.24642@bignews5.bellsouth.net>
Source record: 73404

On second thought -
If you feed it like that, then it will cease to be a G5RV.

"pegge" <pegge.j@DELETEtelia.com> wrote in message
news:RYVAe.29028$d5.182116@newsb.telia.net...
> someone tried to feed a type g5rv antenna with ?european? zip-cord ?
> (european meaning double the Volts compared to USA, thus half amps
> for the same lamp wattage)
> Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
> them up to the dipole part and the the rest X meter to a balanced tuner
etc.
> sorry if this has been up too many times, search did?nt give a clue!
>
> Tnx for info, 73 Per / sm7aha malmo, sweden
>
>

2739. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 04:14:08 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_42d5da66@fidonet.org>
Source record: 73408

"John Ferrell" bravely wrote to "All" (13 Jul 05 14:47:06)
--- on the heady topic of "Re: AD5TH Tower - Storm Damage Photos"

JF> From: John Ferrell <johnferrell@sprintmail.com>
JF> Xref: aeinews alt.ham-radio.vhf-uhf:8238

JF> Hang tough & enjoy your tower Charlie!
JF> If it breaks, fix it. Otherwise enjoy it!

JF> Some day I may get brave and post the pictures of my fold over-crank
JF> up mast with the CushCraft A3 beam on it. It waves around in the wind
JF> like a sailboat mast and flexes the I-beam gantry enough to scare the
JF> clueless when it is time to do antenna work.

JF> When mine breaks, I will either fix or replace, just as I have always
JF> done...

JF> My current worries are lightning and ice.

JF> It has only been up about five years, time will tell.

There is a thing called metal fatigue of which I was abruptly reminded
of this spring. I was raking the lawn as I usually do and the aluminum
handle just snapped in half without any provocation. No way I could
have casually seen it but the rake was some decades old and probably
flexed all it would flex. So there you go, time is against us!

A*s*i*m*o*v

... Give me that old time religion. Hail, Zeus!

2740. Re: T-wave technology

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 04:21:49 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <pKlBe.58910$qm.10180@bignews5.bellsouth.net>
Source record: 73405

Your interest in that frequency range indicates you may have researched it at least a little. Why don't you go first, and tell us about it. The sensitivity to chemicals sounds like an interesting place to begin.

"Tom Ring" <news0002@taring.org> wrote in message news:42d30904$0$32206$39cecf19@news.twtelecom.net...
> This group has vast experience, so I was wondering what any of you have
> worked on, or just plain know about, the so called T-wave range of
> frequencies. Which would be roughly 100GHz to 10THz.
>
> And if you have worked on it, what can you tell us about it? It seems
> to have some interesting potential, similar to XRay in some ways, but
> also sensitive to chemical properties.
>
> tom
> K0TAR

2741. Re: 20m 5el Yagi Question: Gain vs Height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 05:55:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11dbvi1ep1gda24@corp.supernews.com>
Source record: 73406

Ken Bessler wrote:
> I was modeling a 5el 20m yagi. I changed antenna
> height over realistic ground. As I expected, lowering
> from 50' to 25' changed the take off angle from 18
> degrees to 28 degrees.
>
> What suprised me was the forward gain went from
> 14.44 dbi (@50') to 12.63 dbi (@25').
>
> Is this normal?

Yes. A quick run of EZNEC with example file 20m5elYa shows just about the same difference. Notice that the main lobe is much fatter when the antenna is lower -- that's what happened to the gain. Everything else being equal, a fatter lobe means less gain, since you have only so much power to spread around.

I also ran a 3D plot so I could see the Average Gain. With no other sources of loss, it indicates how much is lost in the ground reflection. The lower antenna loses about 0.4 dB more than the higher one. That accounts for 0.4 dB of the loss -- all the rest is because of the change in pattern shape.

As a further educational exercise, try modeling a dipole at those two heights and see what the gain difference is.

Roy Lewallen, W7EL

2742. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 06:08:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <etvbd1t96opkvo5dbnkre69uvo504d9a59@4ax.com>
Source record: 73407

On Wed, 13 Jul 2005 22:34:58 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Most of your past objections are personal opinions
Curious how you flail at these imaginary demons and blow off his
actual quote from your source negating your premise. How you
continually fail to stand by your own citations has lost its novelty.

2743. Re: Coax Cable, Connector & Adapter Catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 06:31:18 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373837383542D614C686@zetnet.co.uk>
Source record: 73365

> Please email or call for your free copy of our latest coax connector,
> adapter, cable assembly & bulk coaxial cable catalog.

> No minimum order

> No handling fees.

Still not received mine or my CD-Rom!!! Dave d:-((

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

2744. Re: Tri-band Combo Vertical Counterpoise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 07:03:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <523cd1teh8eum8cbn2aihg53dm9qokn8g9@4ax.com>
Source record: 73409

On Wed, 13 Jul 2005 20:07:16 GMT, Justï¿½n Kï¿½se
<chupacabra@operamail.com> wrote:

>Just wondering if there's any directional anomalies with the orientation
>of the six meter counterpoise leg on a combo vertical?
>So far I haven't been able to detect any, seems fairly omni-directional.

Hi OM,

Directional anomalies, as you put it, with asymmetric counterpoises
are academic at best. For FM, you would have to be well below levels
of full quieting before you noticed it (the partial dB anomaly); or in
your case of SSB (vertical?), by definition (and certainly practice)
you couldn't possibly hear less than the dB shift (for one, you would
have no basis of comparison as you would have no way of shifting it
in/out to discover the anomaly).

And on the third hand, the academic anomaly in all likelihood is in a
direction that is wholly outside of your normal propagation usage.

This can be cobbled up with the free version of EZNEC to confirm or
negate.

73's
Richard Clark, KB7QHC

2745. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 08:17:07 UTC
From: Owen <owen@no.where>
Message-ID: <9j7cd1dum86i2lit79a821vi5lfivdt1ud@4ax.com>
Source record: 73410

On Wed, 13 Jul 2005 17:40:02 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>I think he was correct about the half-wave length of feedline:
>according to the ARRL Antenna Book - 17th edition copyright 1994 - page
>24-12 in chapter 24, under the Heading "Special Cases" and under the
>sub-heading "The Half-WaveLength Line", it pretty clearly states that
>regardless of z, it will be the same on both ends of a half-wave line. and
>sections having such length can be added or removed without changing the
>load Z. (as long as loss is negligible)
>
>Also - You don't need to know the VF if you use a dip meter (or MFJ 259) -
>And he would want the length to be half-wave so as to be able to ignore the
>characteristic impedence of the zip line and deal directly with the
>impedence of the dipole directly.

This analysis seems to imply use of the antenna on only one one band.

Ill conceived alternative feed arrangments are the most common reason
why so-called G5RVs performs even poorer than the "genuine" article.

The original question about how well "Euro zip line" will perform will
depend on the characteristics of the line. I hazard a guess that it
will be unlikely to have a characteristic impedance as low as 75 ohms
as suggested by some, more likely 100 ohms or more. It is likely to be
PVC insulated, and lines of that type perform much poorer than a high
z line made of the same conductor, not just because of the dielectric
issue, but because the RF resistance of the conductor increases as the
spacing is reduced for very close spacings (proximity effect).

As to whether it "works" for you, you need to define your criteria for
"works". If "works" means you make some QSOs, then I am sure it
"works", but if "works" meand you want to deliver 80% plus of the
transmitter power to the "G5RV variant" antenna feedpoint on several
bands, then it is unlikely to "work".

For arguments sake, if the feedpoint Z of a 30.5m centre fed dipole
(G5RV length) on 3.6MHz is 10-j340, using the characteristics of US
Zip cord measured by K8ZOA, the loss in 25m of such feeder would be
13dB with a Zin of 563-61, so there would be some small
(insignificant) additional tuner loss. Is this what you mean by
"works"?

Owen
--

2746. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 10:37:54 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <iR2mZCKCCk1CFwe4@philstheboss.freeserve.co.uk>
Source record: 73411
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

We only sell weapons to people that aren't intending to shoot at us.

Seems this intention backfired!
--
Philip de Cadenet G4ZOW
Transmitters 'R' Us
http://www.transmittersrus.com

2747. Re: 20m 5el Yagi Question: Gain vs Height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 10:48:10 UTC
From: Dave <noone@nowhere.com>
Message-ID: <abmdnf-AsYFs30vfRVn-3w@crocker.com>
Source record: 73412

sure, closer to the ground you get more loss in the ground. also there may be some power going into other lobes and also the vertical lobe may be wider giving lower peak gain. this is one of the big reasons to do modeling, the changes in pattern and gain do not always follow what you might expect.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:kgkBe.8782$Eo.6158@fed1read04...
>I was modeling a 5el 20m yagi. I changed antenna
> height over realistic ground. As I expected, lowering
> from 50' to 25' changed the take off angle from 18
> degrees to 28 degrees.
>
> What suprised me was the forward gain went from
> 14.44 dbi (@50') to 12.63 dbi (@25').
>
> Is this normal?
>
> --
> Just my 2�... 73 es gd dx de Ken KG�WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>

2748. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 11:55:43 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11dckl5ba4gq4bd@corp.supernews.com>
Source record: 73413
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Dear ZZZZPK (no call, no location):

I thought you were describing the Scots until the word "part."
Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"ZZZZPK "
<zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.e
s.it.net> wrote in message news:42d57505.3837622@news.iol.ie...
<snip>
>
>
> So... in a NON-POLITICAL way please describe those people of the mid
> to late 1700's who went around shooting soldiers who wore REDCOATS and
> GOVERNED a land the that was at one stage part of the GREAT BRITISH
> EMPIRE and had as one of its main cities BOSTON ?
>
>
>

2749. How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 14:12:02 UTC
From: Don Baker <n2mcg@comcast.net>
Message-ID: <i_idnX8EcYLi70vfRVn-1Q@comcast.com>
Source record: 73414

I would like to be able to determine if antenna is present at the end of a piece of coax. In some case antennas of type ?? would have a DC resistance across the coax and that makes it easy. But..., how would you easily determine if a coax shows an infinite DC resistance (NO RETURN PATH) no current flow - like simple did-poke.

Trying to spare the group all the details of what I am doing but I will gladly answer any questions. Thank you in advance for your help.

Don

2750. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 14:26:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d67746$1_1@spool9-west.superfeed.net>
Source record: 73415

Don Baker wrote:
> I would like to be able to determine if antenna is present at the end of a
> piece of coax. In some case antennas of type ?? would have a DC resistance
> across the coax and that makes it easy. But..., how would you easily
> determine if a coax shows an infinite DC resistance (NO RETURN PATH) no
> current flow - like simple did-poke.

You can never be sure that someone hasn't swapped your
antenna for equivalent circuit components but the
MFJ-259B antenna analyzer works for me.
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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2751. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 14:52:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <24f9d$42d67c6c$97d55ac3$11218@ALLTEL.NET>
Source record: 73416

I would do a frequency sweep with an MFJ-259 or similar to cover the
frequencies of interest. A noise bridge and a receiver would be another
approach.

A few specifics would aid in pointing you in the right direction.

"Don Baker" <n2mcg@comcast.net> wrote in message
news:i_idnX8EcYLi70vfRVn-1Q@comcast.com...
> I would like to be able to determine if antenna is present at the end of a
> piece of coax. In some case antennas of type ?? would have a DC
resistance
> across the coax and that makes it easy. But..., how would you easily
> determine if a coax shows an infinite DC resistance (NO RETURN PATH) no
> current flow - like simple did-poke.
>
> Trying to spare the group all the details of what I am doing but I will
> gladly answer any questions. Thank you in advance for your help.
>
> Don
>
>

2752. Re: 20m 5el Yagi Question: Gain vs Height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 14:57:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <312ae$42d67d81$97d55ac3$11371@ALLTEL.NET>
Source record: 73417

If the take off angle changed and you still measured the lobe at the same angle in both cases it is normal.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:kgkBe.8782$Eo.6158@fed1read04...
> I was modeling a 5el 20m yagi. I changed antenna
> height over realistic ground. As I expected, lowering
> from 50' to 25' changed the take off angle from 18
> degrees to 28 degrees.
>
> What suprised me was the forward gain went from
> 14.44 dbi (@50') to 12.63 dbi (@25').
>
> Is this normal?
>
> --
> Just my 2�... 73 es gd dx de Ken KG�WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>
>

2753. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 15:31:59 UTC
From: richardharrison@webtv.net
Message-ID: <9647-42D6856F-357@storefull-3258.bay.webtv.net>
Source record: 73418

Richard Clark wrote:
"Seems to be the white house monitary opolicy too (I wonder if they know we use the dollar?)."

The white house is dense. The U.S. has been spending 8 billion a year just to improve Iraqi infrastructure so foreigners might invest in a place with no law and order. The infrastructure is in desparate need of repair from war, sabotage, crime, and neglect.

Bush needs to put aside his bias against socialist programs, in a state which was socialist under addam, and inaugurate WPA and PWA type programs tp put Iraqi idle minds and hands to work now. This would immediately put money into the hands of spenders. It would give Iraquis a stake in the future of Iraq.

Halliburton, Kellog, Brown and Root, et al can`t do it. They aren`t Iraqis. We`ve been unable to enforce law and order and won`t until it is clear to be in the best interest of Iraqis to maintain law and order.

Best regards, Richard Harrison, KB5WZI

2754. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 16:15:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e43dd11hrrh25g5s8jc0rtngu282i59bg2@4ax.com>
Source record: 73419

On Thu, 14 Jul 2005 10:31:59 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>The white house is dense. The U.S. has been spending 8 billion a year
>just to improve Iraqi infrastructure so foreigners might invest in a
>place with no law and order. The infrastructure is in desparate need of
>repair from war, sabotage, crime, and neglect.

Hi Richard,

As acknowledge by the white house, this Trillion dollar sink hole is putting money down the toilet by buying bullets to protect against suicide bombers (hasn't worked - ever - this has been going on since Nobel invented dynamite).

Simple resolution with that same Trillion dollars that WOULD solve things would be to set up shop next door to the guys strapping sticks of TNT to the Iraqi's vests. Instead, offer to strap packs of $100 for every stick of dynamite they might have lined up for.

Let's say that they would come out looking like a Chia Pet with $50,000 glommed onto them.

We could do this with every man, woman, and child in all of Iraq.

It won't happen, of course, because there is no will to win the war - only to fight one. Except for those who have something better to do with their lives (indirect quote of the draft dodger who shunned military service to run this corporate franchise called the Pentagon).

73's
Richard Clark, KB7QHC

2755. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 17:03:17 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <pVwBe.162351$XQ.3404031@twister.southeast.rr.com>
Source record: 73420

If you have an antenna present the receiver noise level should
increase when you connect the coax. If there is no antenna there
should be no or much less increase in the noise level. This assumes
you are using good low leakage coax.

Ron, W4TQT

Don Baker wrote:
> I would like to be able to determine if antenna is present at the end of a
> piece of coax. In some case antennas of type ?? would have a DC resistance
> across the coax and that makes it easy. But..., how would you easily
> determine if a coax shows an infinite DC resistance (NO RETURN PATH) no
> current flow - like simple did-poke.
>
> Trying to spare the group all the details of what I am doing but I will
> gladly answer any questions. Thank you in advance for your help.
>
> Don
>
>

2756. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 17:04:53 UTC
From: richardharrison@webtv.net
Message-ID: <11530-42D69B35-1282@storefull-3256.bay.webtv.net>
Source record: 73421

Asimov wrote:
"There is a thing called metal fatigue of which I was strongly reminded this spring."

Yes. It usually begins with a microscopic crack. The greater the stress, the shorter the life. Damage is cumulative. It is affected by temperature and surface finish.

Some metals such as steel and titanium have lower stress limits below which they are mostlly im,mune to failure from repeated flexing. Other metals such as aluminum and its alloys have no such immunity and eventually fail under repeated flexing. In these, designs are kept below the fatigue threshold for the number of stress cycles expected within their lives. Or, a lifetime is specified and replacement is required. Another technique is non-destructive testing to find cracks and the piece is retired for cause.

Best regards, Richard Harrison, KB5WZI

2757. Re: zip cord feeding a g5rv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 17:23:16 UTC
From: tjs <anon@anon.net>
Message-ID: <42d6a3b9_4@news1.prserv.net>
Source record: 73422

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:KRfBe.53113$qm.5516@bignews5.bellsouth.net...
>
>
> I think he was correct about the half-wave length of feedline:
> according to the ARRL Antenna Book - 17th edition copyright 1994 -
page
> 24-12 in chapter 24, under the Heading "Special Cases" and under the
> sub-heading "The Half-WaveLength Line", it pretty clearly states that
> regardless of z, it will be the same on both ends of a half-wave line.
and
> sections having such length can be added or removed without changing the
> load Z. (as long as loss is negligible)
>
> Also - You don't need to know the VF if you use a dip meter (or MFJ 259) -
> And he would want the length to be half-wave so as to be able to ignore
the
> characteristic impedence of the zip line and deal directly with the
> impedence of the dipole directly.
>

Exactly

I also have a W6RCA type antenna up...80m dipole in the trees 25-50 feet, fed by 98 feet of homemade 4" spaced ladder line, and ending outside the shack wall with a way to add-in lengths of the feed line by 1 foot, 2 foot, 4 feet or 8 feet. This allows tuning the feedline onto any ham band almost via harmonic relationship of the bands . You endup with a multiple halfwave feedline and whatever swr the antenna runs shows up at the feedpoint (50 ferrite coax to ladder balun 1:1). Best antenna I have. Always better to tune the feedline, and translate the antenna characteristic from the remote locale to the shack wall. There is some loss I guess, but I cant detect it or measure it, and I dont care because the antenna radiates and receives and I get 59 reports.

Tim

2758. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 17:44:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11dd94dq0lrl76f@corp.supernews.com>
Source record: 73423

Either use a TDR, or something that measures RF impedance - an SWR meter, an impedance bridge, an antenna analyzer, or even a signal generator and a scope. Sure there's a path for current flow, but only for sure at RF, so that's where you have to detect it.

Roy Lewallen, W7EL

Don Baker wrote:
> I would like to be able to determine if antenna is present at the end of a
> piece of coax. In some case antennas of type ?? would have a DC resistance
> across the coax and that makes it easy. But..., how would you easily
> determine if a coax shows an infinite DC resistance (NO RETURN PATH) no
> current flow - like simple did-poke.
>
> Trying to spare the group all the details of what I am doing but I will
> gladly answer any questions. Thank you in advance for your help.
>
> Don
>
>

2759. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 17:49:15 UTC
From: dplatt@radagast.org
Message-ID: <11dd9crprn1vo9f@corp.supernews.com>
Source record: 73424

In article <11dd94dq0lrl76f@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>Either use a TDR, or something that measures RF impedance - an SWR
>meter, an impedance bridge, an antenna analyzer, or even a signal
>generator and a scope. Sure there's a path for current flow, but only
>for sure at RF, so that's where you have to detect it.

Or, modify the antenna very slightly - put an RF choke or a
large-value resistor across its feedpoint. This will give you
something to probe for at DC, without affecting the antenna's
performance at RF.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2760. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 17:50:22 UTC
From: richardharrison@webtv.net
Message-ID: <18470-42D6A5DE-113@storefull-3253.bay.webtv.net>
Source record: 73325

Richard Clark wrote:
"This won`t happen, of course, because there is no will to win the war - only to fight one."

When WW-2 ended, Churchill was out.

You need something like a battle to be a wartime leader. Hitler had "Mein Kampf". He and Mussolini wore military uniforms. So did Tojo and Stalin (Saddam`s role model). Military costumes are worn by most Latin-American dictators. Fidel Castro (El Comandante) is an example. Take Mexico, their revolution was almost a century ago, yet the party which ruled the country until the last election was the Partido Revolutionario Institutional. Got to keep that military thing alive to be the leader of choice. Fortunately our president is required to be a civilian.

The war may get you re-eleected no matter how bably you wage it.

Best regards, Richard Harrison, KB5WZI

2761. Re: J Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 20:33:25 UTC
From: Charlie Rahe <crahe2@comcast.net>
Message-ID: <MI2dnWZSpcmIUUvfRVn-sg@comcast.com>
Source record: 73326

Doug-
Try using it as is. I have a 2m J I made many years ago & it has a
decent SWR on 440 & seems to work fine.
Charlie, AI3L

dgbirky@voyager.net wrote:
> I have a copper tube J pole for 2m. Is there a good way to convert it
> to 2M/440?
> Thanks,
> Doug
> KC8YEC
>

2762. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 21:02:45 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <db6kd7se1@news.service.uci.edu>
Source record: 73327

Cecil Moore wrote:

> Most of your past objections are personal opinions that
> have been based on a lack of understanding of what I was
> saying.

It is my opinion that most of my past objections were based on your lack of understanding of what you were saying. ;-)

> Please list just one law of physics from which
> I have diverged. I do not think you can do that.

Physics doesn't have a book of code violations, Cecil. It's more like a big set of equations. The rules are mathematical. I've already shown you where you made mistakes. What tortuous obligation have I encumbered that dooms me to an eternity of repeating these things to you? Just try turning down the squelch a little.

73, ac6xg

2763. Re: J Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 22:01:35 UTC
From: dplatt@radagast.org
Message-ID: <11ddo5v4j982e2a@corp.supernews.com>
Source record: 73328

>> I have a copper tube J pole for 2m. Is there a good way to convert it
>> to 2M/440?

>Try using it as is. I have a 2m J I made many years ago & it has a
>decent SWR on 440 & seems to work fine.

They'll usually work as-is on 440, but aren't entirely efficient. SWR is higher, and so is the radiation angle - a good deal of power ends up warming the nearby treetops and hilltops rather than going out towards the horizon.

I've seen at least three ways suggested to construct a more-effective dualband J-pole:

[1] Separate matching arm and feedline for 440 (the "copper cactus" design)

[2] Adding a downwards-pointing, shorted-at-the-top quarter-wavelength stub (coaxial or arm) partway up the radiator, leaving the distance between the open end of the stub and the top of the main matching arm equal to 1/2 wavelength at 440. The stub presents a high impedance to the 440 power, constraining its current to remain mostly in the 1/20-wavelength-at-440 part of the radiator.

Edison Fong WB6IQN published a design in QST (February 2003), which uses this approach to create an improved 2-meter/440 twinlead J-pole design. The same trick ought to work with a copper pipe J-pole, I imagine. [There are some publishing errors in the QST version of Ed's paper... he's got a corrected version available, I believe.]

[3] Add a 1/2-wavelength 440 parasitic radiator, mounted next to the bottom of the 2-meter radiator on standoffs.

This one is a bit speculative. There's a published design on the ARRL website which uses this approach to improve the radiation angle for a center-fed vertical 2-meter/440 dipole, and I think the same trick ought to work for a copper-pipe J-pole if you put the parasitic radiator on the opposite side of the antenna from the matching arm.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

2764. Re: Feed point chokes for J-poles: how close?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 23:41:33 UTC
From: Crazy George <munsch@atglobal.net>
Message-ID: <42d6fd33_1@news1.prserv.net>
Source record: 73329

The purpose of the choke(s) is to reduce/eliminate coupling between the antenna and feedline, thus suppressing feedline
radiation. Running the coax inside the element effectively does this for the upper elements, so the bottom one is the
only one of concern. However, since it will couple to all the feedlines, they all need to be choked, but only for the
frequency of the lowest element. One simple way to do this is an isolated metal tube a quarter wave long just below the
mounting stub.

--
Crazy George
The attglobal.net address is a SPAM trap. Please change that part to: att<dot>biz properly formatted.
"Ben Jackson" <ben@ben.com> wrote in message news:slrnddb199.kj.ben@saturn.home.ben.com...
> In a multi-band J-pole (where higher frequency j-poles are basically
> mounted on the long leg of the next lower frequency leg) can the feedpoint
> chokes for all the bands be located at the base of the antenna, or do they
> need to be kept right by the J's for each band? The "copper cactus" has
> the feeds running up the center pole and poking out holes in the tube
> for each feedpoint. That would require putting the chokes at the base of
> the mounting stub.
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

2765. Re: Beam tilting

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-14 23:52:17 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <RUCBe.22675$O56.15084@trnddc07>
Source record: 73330

No. The elevation angle of the first (or any) lobe is formed by the sum
of the main and the ground-reflected signals. If you tilt the antenna you
stop illuminating the two rays equally.

-- Tom

"Ron" <rmrippy@hotmail.com> wrote in message
news:I_eBe.161061$XQ.3273869@twister.southeast.rr.com...
> Is there any advantage to tilting a beam antenna up or down to match the
> anetnna's elevation angle of maximum gain to the angle of the received
> signal? It looks like the answer is yes but not enough to justify the
> trouble/expense (unless you are tracking a satellite).
>
> Ron, W4TQT
>

2766. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 00:02:51 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <boudd1dks79nfscmq9i7v9pndkq3iauu30@4ax.com>
Source record: 73331

I rarely get caught with the antenna fully extended when the wind is
gusting.Thank goodness for electric winches!

Crank up masts are an entirely different kind of antenna mount. I
would not bet on it withstanding 110 mph winds in the up position, but
I am betting it will do more than that retracted!

Wednesday, 13 Jul 2005 23:14:08 -500, "Asimov"
<Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote:

>"John Ferrell" bravely wrote to "All" (13 Jul 05 14:47:06)
> --- on the heady topic of "Re: AD5TH Tower - Storm Damage Photos"
>
> JF> From: John Ferrell <johnferrell@sprintmail.com>
> JF> Xref: aeinews alt.ham-radio.vhf-uhf:8238
>
> JF> Hang tough & enjoy your tower Charlie!
> JF> If it breaks, fix it. Otherwise enjoy it!
>
> JF> Some day I may get brave and post the pictures of my fold over-crank
> JF> up mast with the CushCraft A3 beam on it. It waves around in the wind
> JF> like a sailboat mast and flexes the I-beam gantry enough to scare the
> JF> clueless when it is time to do antenna work.
>
> JF> When mine breaks, I will either fix or replace, just as I have always
> JF> done...
>
> JF> My current worries are lightning and ice.
>
> JF> It has only been up about five years, time will tell.
>
>
>There is a thing called metal fatigue of which I was abruptly reminded
>of this spring. I was raking the lawn as I usually do and the aluminum
>handle just snapped in half without any provocation. No way I could
>have casually seen it but the rake was some decades old and probably
>flexed all it would flex. So there you go, time is against us!
>
> A*s*i*m*o*v
>
>... Give me that old time religion. Hail, Zeus!

2767. Re: Wow, everything is RE: here...what a disappointment

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 00:19:28 UTC
From: Murray <radioranch@qth.com>
Message-ID: <11de02sik8v8r53@corp.supernews.com>
Source record: 73333
Body handling: Binary attachment payload not displayed: radioranch.vcf

Any body dealing with antennas in this group, what I read was pretty off color and off subject. Want to know what a CCD antenna is really supposed to do compared to say a delta loop...Just put one up and it seems too good to be true compared to my well known hot signal 40 meter delta...what is your opinion and please reply all so I will get a person response. dont think Ill be reading this group everyday...who cares about the british pound? EH? thanks Murray K5MDM

Richard Clark wrote:
> On Tue, 12 Jul 2005 20:44:33 GMT, "pegge" <pegge.j@DELETEtelia.com>
> wrote:
>
>>someone tried to feed a type g5rv antenna with ï¿½europeanï¿½ zip-cord ?
>>Would yield a simple ant, peel the first say abt 15- 17 meters, splitting
>>them up to the dipole part and the the rest X meter to a balanced tuner etc.
>
>
> Hi Per,
>
> Hard to apply the name g5rv to this, but that makes no difference
> anyway. Simply call it a dipole driven with close spaced twin lead.
> That twin lead will be 50 to 70 Ohms characteristic impedance. It
> will also have a suspect dielectric loss. This does not make it a bad
> antenna. There will be the usual high loss with high SWR - depending
> upon the gauge of the wire.
>
> In short, no worse than an ordinary antenna used outside of its
> natural resonance.
>
> 73's
> Richard Clark, KB7QHC

[One or more binary attachments are retained only in the source text.]

2768. Re: Beam tilting

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 00:20:13 UTC
From: Murray <radioranch@qth.com>
Message-ID: <42D7013D.2080009@qth.com>
Source record: 73332
Body handling: Binary attachment payload not displayed: radioranch.vcf

Well, is there any dis advantage?

Roy Lewallen wrote:
> No.
>
> Roy Lewallen, W7EL
>
> Ron wrote:
>
>> Is there any advantage to tilting a beam antenna up or down to match
>> the anetnna's elevation angle of maximum gain to the angle of the
>> received signal? It looks like the answer is yes but not enough to
>> justify the trouble/expense (unless you are tracking a satellite).
>>
>> Ron, W4TQT
>>

[One or more binary attachments are retained only in the source text.]

2769. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 00:21:36 UTC
From: Murray <radioranch@qth.com>
Message-ID: <42D70190.2050004@qth.com>
Source record: 73334
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx
Body handling: Binary attachment payload not displayed: radioranch.vcf

Wow, look at all this crap

Zoran Brlecic wrote:
> Fred W4JLE wrote:
>
>> So now the actions of the government are responsible for your
>> profanity? Get
>> a life!
>>
>> You are a foul mouthed person with limited ability to express yourself
>> with
>> out profanity, that failing, you resort to hyperbole and rants against
>> the
>> government.
>
>
> You seem to have a reading comprehension problem, Fred. Nowhere did I
> say that "the actions of the government are responsible" for anything I
> do. I simply gave an example of the rampant hypocrisy and the false
> morals of the so-called social conservatives whose actions somehow don't
> match their alleged morality and perceived social and moral superiority.
> Anything else you're reading into this is your own construct.
> The reason I cited that example is because it is almost identical to
> your rants against my "profanity", "gutter language" and "foul mouth".
> For some strange reason you social conservatives are unable to grasp the
> simple concept of *not* reading/watching/viewing/listening to whatever
> offends you. Is that so difficult?
>
>>>> Your profanity speaks more about you than your comments on the radio
>>
>>
>> tower.
>>
>>> It speaks to the people who, to cite just one recent example, go berserk
>>> and express outrage over a half a breast on national TV, yet fall
>>> strangely silent when their government invades a sovereign country using
>>> false premises and manufactured evidence, or attempts to legalize
>>> torture.
>>>
>>> Do you really think I care what the Taliban of any religious persuasion
>>> think about me?
>
>

> And what's with top-posting?
>
> 73 ... Zoran WA7AA

[One or more binary attachments are retained only in the source text.]

2770. Re: Beam tilting

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 00:31:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11de0vt4muq7505@corp.supernews.com>
Source record: 73335

No, except maybe mechanically. The pattern of the antenna itself is quite broad in the vertical plane. That is, its elevation pattern is pretty fat unless it's a very long array, so tilting it in elevation doesn't make much difference. The overall elevation pattern, except at pretty high angles, is dictated by the ground reflection, which is primarily determined by the height of the antenna above the ground.

If you're working satellites or otherwise line-of-sight where no significant amount of ground-reflected signal hits the ground, then yes, you want to point the antenna at the target. But again, unless the Yagi is a very long one, its elevation pattern will be broad and you can be pretty sloppy about the elevation angle.

A few minutes spent with a modeling program will illustrate these effects clearly.

Roy Lewallen, W7EL

Murray wrote:
> Well, is there any dis advantage?
>
> Roy Lewallen wrote:
>
>> No.
>>
>> Roy Lewallen, W7EL
>>
>> Ron wrote:
>>
>>> Is there any advantage to tilting a beam antenna up or down to match
>>> the anetnna's elevation angle of maximum gain to the angle of the
>>> received signal? It looks like the answer is yes but not enough to
>>> justify the trouble/expense (unless you are tracking a satellite).
>>>
>>> Ron, W4TQT
>>>

2771. How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 02:52:06 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <db78ckuvf1@mailhub227.itcs.purdue.edu>
Source record: 73336

My shack is on the second floor, and I will be feeding a vertical with RG-213/U. In addition to the antenna feed line, I will also need to run a wire from the shack to a ground rod. The room housing the shack has one window, which is just to the left of the equipment table, and the window is an aluminum single-hung type. The house wall has aluminum siding on the exterior.

My current plan is to drill two holes, one for the coax and one for the ground wire, in the wood frame that is just below the bottom of the window. I expect to sell this house in the next year or two, so I want to be able to easily patch over any holes I have made in the wall.

Any advice and information will be gratefully received.

2772. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 02:57:28 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9693CB64BDDFDspectrumhogstarbandn@207.106.92.175>
Source record: 73337
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

> In all honesty to those that ridiculed the tower and it's associated
> riggings etc...I have posted photos of the damage incurred from the
> category 4 hurricane Dennis.

According to my map you weren't hit by hurricane Dennis..... maybe a
bit of tropical storm.... maybe.

Ed

2773. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 03:01:10 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9693CC0A32206spectrumhogstarbandn@207.106.92.175>
Source record: 73338
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

>
> http://www.wunderground.com/history/airport/KMEI/2005/7/12/MonthlyHisto
> ry.html#calendar
>
> DATE High Avg Gusts Events
> 9 24 3 59 Rain , Thunderstorm
> 10 37 8 28 Rain
> 11 21 13 20 Rain
> 12 16 2 30 Thunderstorm

Damn! gusts to 59 and they get Federal disaster assistance? Hell, we had gusts that high in the past couple months on the Oregon coast. Maybe we ought to appy too?

Ed K7AAT

2774. Re: Wow, everything is RE: here...what a disappointment

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 03:22:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <97aed19eamkrkusuud7bj3rjcp06nm1778@4ax.com>
Source record: 73339

On Thu, 14 Jul 2005 19:19:28 -0500, Murray <radioranch@qth.com> wrote:

>This is a multi-part message in MIME format.

This is still pretty obnoxious.

>--------------010006030806060308030708
>Content-Type: text/plain; charset=ISO-8859-1; format=flowed
>Content-Transfer-Encoding: 8bit
>
>Any body dealing with antennas in this group, what I read was pretty off
>color and off subject.

Hi Murray,

It is called the price of admission, and is the exercise of American
rights to unrestrained speech.

> Want to know what a CCD antenna is really
>supposed to do compared to say a delta loop...Just put one up and it
>seems too good to be true compared to my well known hot signal 40 meter
>delta...what is your opinion and please reply all so I will get a person
>response.

The CCD is one of those arm-chair designs that is a gift to mankind in
the form of gain from a dipole.

To being with, the theory behind it is that this antenna is frequency
specific, and that it is much larger than the standard dipole it
replaces. If this is news to you, then there's trouble ahead.

Continuing, the theory behind it maintains that each section is tuned
and presents a current maxima that aids with each of its neighbors to
thus increase gain. The standard current distribution along the
standard dipole is cosine shaped by and large. For the CCD it is
presumably linear - until you get to the ends of course where it
plummets to 0 in the last section. Myself, I respond to this
description of an antenna by parts as being much like a fresnel lens
in its conception.

However, modeling, such as I have done, fails to substantiate the
claims even if through contortions and exasperation I do manage to
attains some semblance of the linear current model.

Further, physical models bear out no particular boon to mankind that
has been extolled.

>dont think Ill be reading this group everyday...who cares
>about the british pound? EH?

This falls into the category of off topic response, something you presumably eschew and simultaneously indulge in. This, too, is a commonplace activity.

I am happy to respond to all topics that interest me. There are other endlessly boring discussion of antennas - notably those that have survived hurricanes as evidenced by photo doctoring - that remain on topic, and off interest. I don't complain about it though, except to recite as a parable.

73's
Richard Clark, KB7QHC

2775. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 03:26:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a4bed1dt5ki5p5st4gf3vi842bjact5mls@4ax.com>
Source record: 73340

On Thu, 14 Jul 2005 21:52:06 -0500, "John N9JG"
<john@gotwals.xremovey.com> wrote:

>My current plan is to drill two holes, one for the coax and one for the
>ground wire, in the wood frame that is just below the bottom of the window.

Hi John,

Open the window 3".

Get a piece of wood as wide as the window, and that same 3" tall.

Insert the drilled piece of wood into the window.

Close the window.

Bar the window against 2nd story cat burglars.

73's
Richard Clark, KB7QHC

2776. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 03:31:36 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_42d71fff@fidonet.org>
Source record: 73345

"Richard Harrison" bravely wrote to "All" (14 Jul 05 12:04:53)
--- on the heady topic of "Re: AD5TH Tower - Storm Damage Photos"

RH> From: richardharrison@webtv.net (Richard Harrison)
RH> Xref: aeinews rec.radio.amateur.antenna:34153

RH> Some metals such as steel and titanium have lower stress limits below
RH> which they are mostlly im,mune to failure from repeated flexing. Other
RH> metals such as aluminum and its alloys have no such immunity and
RH> eventually fail under repeated flexing. In these, designs are kept
RH> below the fatigue threshold for the number of stress cycles expected
RH> within their lives. Or, a lifetime is specified and replacement is
RH> required. Another technique is non-destructive testing to find cracks
RH> and the piece is retired for cause.

How can one estimate stress cycles from a wind load?

A*s*i*m*o*v

... All the tea in china: 356,000 metric tons.

2777. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 03:56:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d734e8$1_1@spool9-west.superfeed.net>
Source record: 73341

Jim Kelley wrote:
> I've already shown you where you made mistakes.

What you have shown me are a bunch of strawmen with which
I have no arguments. As a result, I have no idea upon what
we disagree. Most of your technical assertions are true and
I agree with them. When you derived the same total
destructive interference equation that I had been posting,
including the negative power term, virtually all of our
arguments went away.

How about technically explaining in detail just one
mistake you think I have made? I need to understand
a mistake before I can correct it.

Here's a typical objection of yours, an implication with
no technical content.

> It is where you diverge from Hecht ... that I take issue.

I sincerely have no idea where you think I diverge from Hecht
and your refusal to enlighten me is interesting. In fact, I have
quoted Hecht extensively and borrowed some of his concepts from
optics to apply to RF. His treatments of superposition and
interference are the best I have ever read. I am not aware
of any divergence from Hecht on my part. Your assertion that I
diverge from Hecht or Richard presuming to roll Hecht's eyes
for him contains zero technical content from which I learn
nothing.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2778. Re: Wow, everything is RE: here...what a disappointment

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 03:59:44 UTC
From: nm5k@wt.net
Message-ID: <1121399984.656712.265790@g43g2000cwa.googlegroups.com>
Source record: 73342

Want to know what a CCD antenna is really
supposed to do compared to say a delta loop...Just put one up and it
seems too good to be true compared to my well known hot signal 40 meter
delta...what is your opinion and please reply all so I will get a
person
response.

We already quickly talked about this a year or two ago, but
I'm not that great a fan of them. Or at least, I see no real advantage
to any other type of antenna. I've worked and check signals on scads
of those over the years, and to tell you the truth, as far as
performance
compared to just a dipole, they are often inferior in the real world.
Or to put it another way....Many of the CCD users often had inferior
signals compared to the dipole users, when you take an average
reading over a period of days or weeks.. I never saw any that were
better...
Why does it seem to good to be true? All a CDD does is supposably
maintain a more constant current distribution across the antenna.
In some cases, IE: a steep inv vee, this could be a *disadvantage*.
Or seems to me...I would prefer the current concentrated at the apex,
which is the high point of the antenna. If you spread current more
towards
lower sections of the wire, this could actually decrease perfomance.
Myself, I see no advantage, and will stick to my dipoles, etc...MK

2779. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 05:32:43 UTC
From: richardharrison@webtv.net
Message-ID: <15651-42D74A7B-87@storefull-3255.bay.webtv.net>
Source record: 73344

Richard Clark wrote:
"--this Trillion dollar sink hole is putting money down the toilet by buying bullets to protect against suicide bombers--"

Spend some money on bomb sniffing dogs. It`s the explosions that must end. Let the bombers find a new way to kill themselves.

Best regards, Richard Harrison, KB5WZI

2780. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 05:44:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p4jed112ol2uvrje2frr0ukmqfblgokhvm@4ax.com>
Source record: 73343

On Thu, 14 Jul 2005 22:56:19 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Your assertion that I
>diverge from Hecht or Richard presuming to roll Hecht's eyes
>for him contains zero technical content from which I learn
>nothing.
Amusing, when I quote Hecht, it is presumption, when you quote Hecht,
it is receiving tablets on Ararat.

Well it beats your impersonation of Galileo.

That's OK, no one expects you to respond to Jim's point drawn from
Hecht.

2781. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 07:01:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6bmed1lpgpocr73v4legtqqeldp19supkp@4ax.com>
Source record: 73346

On Fri, 15 Jul 2005 00:32:43 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Spend some money on bomb sniffing dogs. It`s the explosions that must >end. Let the bombers find a new way to kill themselves.

Hi Richard,

white house marching orders were to ignore the ammo dumps (museums, relief agencies, nuke sites, industrial areas, power plants, water works, ...) to looters and to protect the energy offices in the capital.

Once the energy offices were secured, new orders to ignore the wandering deserters, stay out of the desert smuggler lanes, and avoid borders - to take command of the pipeline.

Once the pipeline was taken, new orders to ignore securing the pipeline, or protecting the fields and plants, and to shrug off the terminals and ports until Haliburton arrived.

Once Haliburton arrived, new orders to abandon military operations to protect foreign workers (from the US of course), and convert aid workers to informants for intelligence operatives (increasing the demand on the Armed Forces to protect even more civilians) and to patrol in advance of civilian operated trucking operations. Military personnel were diverted from mission to build and secure the "Green Zone," a soviet style encampment modeled after Kabul during the (failed) occupation.

Then reduce troop count.

Then raise troop count.

Then extend tours.

Then cap retirement and discharges.

Then institute rotations guaranteed for 10 years out. Not to mention being humbled into a death gratuity raise, and more pay. Quick discharge for those medically unfit due to "non-combat" injuries (a bureaucratic double shuffle).

Clearly there is absolutely no will to win. There is every will to balance this war on the back of men in uniform though and to rob the treasury to pay contractors 5 to 10 times as much to do the same work of a qualified grunt, who has to train these clowns and then take an RPG while watching their backs.

The draft dodgers and goldbricks that inhabit the administration never learned the lessons of Vietnam - they had more important things to do with their life when other men in uniform were preserving freedom and Democracy and standing against the Communist menace.

73's
Richard Clark, KB7QHC

2782. Re: Beam tilting

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 07:24:21 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <42D764A5.803@killspam.internode.on.net>
Source record: 73347

Ron wrote:
> Is there any advantage to tilting a beam antenna up or down to match the
> anetnna's elevation angle of maximum gain to the angle of the received
> signal?
Ron, I have a 12 element Yagi for TV (Horizontal) at 529 MHz and I find tilting it down by about 10 degrees improves the reception by a noticeable amount. The ground also slopes downhill by about 12 degrees too (in the direction I'm looking). Putting the Yagi up higher is not as good as having it about two feet off the ground with the downwards tilt. The station is about 100 km away and the signal has to "bend" over a range of hills 40 km from my location.

Alan

2783. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 09:25:18 UTC
From: kashe@sonic.net
Message-ID: <020fd1lsk7t7vca1rf3sas64qupa1dik48@4ax.com>
Source record: 73348
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

On Thu, 7 Jul 2005 22:31:31 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I guess then we are to conclude that you can not express outrage at a
>situation with out gutter language.
>
>You Sir are the one with flawed logic, regardless of the perceived offense
>one sees in the construction of a tower, it conveys no license to assail the
>members of the group with gutter language.
>
>Might I suggest a course in creative writing at your local adult education
>center? It may expand your vocabulary beyond the profane utterances we have
>seen so far.

Might I suggest your pseudo-superior language adds nothing to
the discussion and makes you sound like a lamer?

I'll bet your daily language is liberally peppered with
panty-waist words like 'inappropriate".

>
>
>
>"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
>news:ad-dnTSQS_2CTVDfRVn-hw@comcast.com...
>> Fred W4JLE wrote:
>>
>> > And your liberal use of profanity accomplishes the exact same thing. Can
>you
>> > not express yourself without sounding like you belong on Ch 19?
>>
>> Nice logic, albeit not much surprising in these "morality" driven times:
>> "liberal use of profanity" is of the same impact and scope as erecting
>> an unsafe tower.
>>
>

2784. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 09:32:25 UTC
From: kashe@sonic.net
Message-ID: <ja0fd1hvogl9rogc18t265m7vg6qei5s5e@4ax.com>
Source record: 73349
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

On Sat, 9 Jul 2005 13:56:07 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>So now the actions of the government are responsible for your profanity? Get
>a life!
>
>You are a foul mouthed person with limited ability to express yourself with
>out profanity, that failing, you resort to hyperbole and rants against the
>government.
>

Any government which thinks (as shown in the state of the
union message) that the two largest problems this country faces are
Janet Jackson's boob and the propensity of multi-million dollar
athletes using steroids to convert their nuts into raisins is well
worth ranting against.

Yo, Shrub, ever heard of child malnutrition, able-bodied and
willing men without jobs, pissing away the national treasure
(including claiming none of Iraq's future oil profits for saving their
sorry asses) for the benefit of Halliburton? I thought not.

>
>
>
>"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
>news:NuKdnYWEdKAD3VLfRVn-3A@comcast.com...
>> Ham op wrote:
>>
>> > Your profanity speaks more about you than your comments on the radio
>tower.
>>
>> It speaks to the people who, to cite just one recent example, go berserk
>> and express outrage over a half a breast on national TV, yet fall
>> strangely silent when their government invades a sovereign country using
>> false premises and manufactured evidence, or attempts to legalize torture.
>>
>> Do you really think I care what the Taliban of any religious persuasion
>> think about me?
>

2785. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 11:32:03 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <gJSdnU27I-9UA0rfRVn-tQ@comcast.com>
Source record: 73350

Asimov wrote:
> "Richard Harrison" bravely wrote to "All" (14 Jul 05 12:04:53)
> --- on the heady topic of "Re: AD5TH Tower - Storm Damage Photos"
>
> RH> From: richardharrison@webtv.net (Richard Harrison)
> RH> Xref: aeinews rec.radio.amateur.antenna:34153
>
> RH> Some metals such as steel and titanium have lower stress limits below
> RH> which they are mostlly im,mune to failure from repeated flexing. Other
> RH> metals such as aluminum and its alloys have no such immunity and
> RH> eventually fail under repeated flexing. In these, designs are kept
> RH> below the fatigue threshold for the number of stress cycles expected
> RH> within their lives. Or, a lifetime is specified and replacement is
> RH> required. Another technique is non-destructive testing to find cracks
> RH> and the piece is retired for cause.
>
>
> How can one estimate stress cycles from a wind load?
>
> A*s*i*m*o*v
Believe it or not, but from historical weather data. Historical wind profiles do exist. Statistical analysis will yield an 80 percentile, 90 percentile or even 99 percentile probability of all wind being below the profile limit.

2786. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 12:03:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d7a6fa$1_1@spool9-west.superfeed.net>
Source record: 73351

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Your assertion that I
>>diverge from Hecht or Richard presuming to roll Hecht's eyes
>>for him contains zero technical content from which I learn
>>nothing.
>
> Amusing, when I quote Hecht, it is presumption, ...

I am not objecting to your quoting Hecht. I am objecting
to you being presumptious enough to roll someone else's
eyeballs. How do you know Hecht is not rolling his
eyeballs at your postings?

The only time I remember you quoting Hecht was with some
irrelevant refraction stuff having nothing to do with
transmission lines or with the perfect laser example.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2787. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 12:33:53 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d7ae72$2_3@x-privat.org>
Source record: 73352
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

No, no, no.

The pound is robust. The dollar is taking a long time to
catch up in value.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:gesad1hf0qv1kfapkj92p95vff08595c7l@4ax.com...
> On Wed, 13 Jul 2005 20:21:34 +0100, "Polymath"
> <invalid@invalid.invalid> wrote:
>>Pound, Money = sort of like a dollar, but twice as valuable
> today: $1.77 (down 10% since Christmas shopping)
>>and more robust.
> What a con job.
> 100 years ago, today: $4.87
> 40 years ago, today: $2.80
> 30 years ago, today: $2.20
> 20 years ago, today: $1.39
> 10 years ago, today: $1.60
>
> Robust must mean slumped by 63% - One Time Constant?

2788. Re: Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 12:42:58 UTC
From: "Bob McGwier (N4HY)" <xxrwmcgwiexxxr@xxxxxcomcast.xxxxxnet>
Message-ID: <oLOdnWKS1qnNMkrfRVn-3Q@comcast.com>
Source record: 73353

Mike Speed wrote:
> What do you guys think of the Gap Antennas - they have the Titan, etc.
>
> How many of you have had experience with
> elevated radials? Four elevated radials at the correct length and
> height are supposed perform as well as many ground mounted radials.
>
>
>
>

Mine is sitting on a pile in the back of my yard, and replaced by
a Steppir BigIR. On 40, and 80 the Titan is nearly worthless. On
the other bands, it is marginally useful. Compared to a BigIR,
fogettaboutit (I live in Jersey now). The BigIR acts as a 3/4
wave on 15 through 6 meters.

Bob
N4HY

2789. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 12:48:46 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <db8bbd$f0t$1@mailhub227.itcs.purdue.edu>
Source record: 73354

That approach had crossed my mind, but the screen in the window cannot be removed without first removing the hung window. Removing the window is a real pain in the arse.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:a4bed1dt5ki5p5st4gf3vi842bjact5mls@4ax.com...
> On Thu, 14 Jul 2005 21:52:06 -0500, "John N9JG"
> <john@gotwals.xremovey.com> wrote:
>
>>My current plan is to drill two holes, one for the coax and one for the
>>ground wire, in the wood frame that is just below the bottom of the
>>window.
>
> Hi John,
>
> Open the window 3".
>
> Get a piece of wood as wide as the window, and that same 3" tall.
>
> Insert the drilled piece of wood into the window.
>
> Close the window.
>
> Bar the window against 2nd story cat burglars.
>
> 73's
> Richard Clark, KB7QHC

2790. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 15:16:02 UTC
From: richardharrison@webtv.net
Message-ID: <15054-42D7D332-73@storefull-3254.bay.webtv.net>
Source record: 73355

Asimov wrote:
"How can one estimate stress cycles from a wind load?"

Tower failure usually results from a single event or cycle of overstress.

Radio towers are rated according to the mph or wind load (pounds per square foot) they will withstand while carrying all their other loads, dead or live.

Towers do vibrate in a breeze as any tower climber can affirm. Resonant frequency depends on construction.

Wind vibration has brought down structures. A famous example is "Galloping Gertie", a suspension bridge in the western U.S.A.

Deflection is limited in radio towers and elastic limits are not exceeded. The tower section returns to its original form after each flexing.

Stress cycles enlarge certain microscopic cracks. Examples are the Comet airliner. Three aircraft flew apart in mid-air. It was determined that stress cracks in the angular corners of its windows were enlarged by pressurization / depressurization cycles. This was fixed by rounded corners but it was too late. The first jet airliner was scrubbed.

Another example is found in high pressurre gas pipelines. Their internal pressure cycles and this tends to enlarge microscopic cracks, if any, in the pipe. Pipes are hydrostatically tested before placed in service (no energy storage in water as it is incompressible) so a pipe blow out of water won`t likely hurt a bystander. After the pipe is put in service it is retested each year.

Radio towers are not usually flexed beyond limits by vibration but come down due to an accident and / or extreme wind.

Best regards, Richard Harrison, KB5WZI

2791. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 15:27:17 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42d7d5b7$1_2@x-privat.org>
Source record: 73356

Go and take a look.

"Don Baker" <n2mcg@comcast.net> wrote in message
news:i_idnX8EcYLi70vfRVn-1Q@comcast.com...
>I would like to be able to determine if antenna is present at the end of a
> piece of coax.

2792. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 15:53:14 UTC
From: george <chicken_george@cbworld.com>
Message-ID: <42D7DBE9.F3C7ACBA@cbworld.com>
Source record: 73357
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

Yo Murray,

you got it right,

just like channel 12 or 21

Murray wrote:

> Wow, look at all this crap
>
> Zoran Brlecic wrote:
> > Fred W4JLE wrote:
> >
> >> So now the actions of the government are responsible for your
> >> profanity? Get
> >> a life!
> >>
> >> You are a foul mouthed person with limited ability to express yourself
> >> with
> >> out profanity, that failing, you resort to hyperbole and rants against
> >> the
> >> government.
> >
> >
> > You seem to have a reading comprehension problem, Fred. Nowhere did I
> > say that "the actions of the government are responsible" for anything I
> > do. I simply gave an example of the rampant hypocrisy and the false
> > morals of the so-called social conservatives whose actions somehow don't
> > match their alleged morality and perceived social and moral superiority.
> > Anything else you're reading into this is your own construct.
> > The reason I cited that example is because it is almost identical to
> > your rants against my "profanity", "gutter language" and "foul mouth".
> > For some strange reason you social conservatives are unable to grasp the
> > simple concept of *not* reading/watching/viewing/listening to whatever
> > offends you. Is that so difficult?
> >
> >>>> Your profanity speaks more about you than your comments on the radio
> >>
> >>
> >> tower.
> >>
> >>> It speaks to the people who, to cite just one recent example, go berserk
> >>> and express outrage over a half a breast on national TV, yet fall
> >>> strangely silent when their government invades a sovereign country using

> >>> false premises and manufactured evidence, or attempts to legalize
> >>> torture.
> >>>
> >>> Do you really think I care what the Taliban of any religious persuasion
> >>> think about me?
> >
> >
> > And what's with top-posting?
> >
> > 73 ... Zoran WA7AA

2793. Re: AD5TH Tower Project Completed - Pics Online

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 15:55:10 UTC
From: george <chicken_george@cbworld.com>
Message-ID: <42D7DC5D.D4D8B6DC@cbworld.com>
Source record: 73358
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx

We all know that that tower is a pile of junk

who in their right mind would use that sears
tower ontop of the rohn ?

The local elec. guys willl be
stopping by his qth soon to get him to remove
the unapproved guy wires on their pole.

2794. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 15:59:37 UTC
From: jake <jake@towerlessjake.com>
Message-ID: <42D7DD68.8EBA8FDA@towerlessjake.com>
Source record: 73359

Yes, the Tacoma Narrows Bridge !

They forgot to design it for torsional forces.
Expensive lesson to learn.

It was rebuilt without the solid sides,
this allows the winds to pass between the
steel members instead of against them.

jake

Richard wrote:

> Asimov wrote:
> "How can one estimate stress cycles from a wind load?"
>
> Tower failure usually results from a single event or cycle of
> overstress.
>
> Radio towers are rated according to the mph or wind load (pounds per
> square foot) they will withstand while carrying all their other loads,
> dead or live.
>
> Towers do vibrate in a breeze as any tower climber can affirm. Resonant
> frequency depends on construction.
>
> Wind vibration has brought down structures. A famous example is
> "Galloping Gertie", a suspension bridge in the western U.S.A.
>
> Deflection is limited in radio towers and elastic limits are not
> exceeded. The tower section returns to its original form after each
> flexing.
>
> Stress cycles enlarge certain microscopic cracks. Examples are the Comet
> airliner. Three aircraft flew apart in mid-air. It was determined that
> stress cracks in the angular corners of its windows were enlarged by
> pressurization / depressurization cycles. This was fixed by rounded
> corners but it was too late. The first jet airliner was scrubbed.
>
> Another example is found in high pressurre gas pipelines. Their internal
> pressure cycles and this tends to enlarge microscopic cracks, if any, in
> the pipe. Pipes are hydrostatically tested before placed in service (no
> energy storage in water as it is incompressible) so a pipe blow out of
> water won`t likely hurt a bystander. After the pipe is put in service it
> is retested each year.
>

> Radio towers are not usually flexed beyond limits by vibration but come
> down due to an accident and / or extreme wind.
>
> Best regards, Richard Harrison, KB5WZI

2795. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 16:06:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <77nfd19t4m12g8mr2iin6s28ebj73g9dtb@4ax.com>
Source record: 73360
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 15 Jul 2005 13:33:53 +0100, "Polymath"
<invalid@invalid.invalid> wrote:

>No, no, no.

What touching agony in that expression [classic denial].

>The pound is robust. The dollar is taking a long time to
>catch up in value.

Uh-huh, and back when the conversion rate was nearly 1 for 5 and
there was an "empire," how much Gold could you get in conversion?

If robust means plummeted by 95% and ruling an island, then you
probably have a stock portfolio full of Dot.Coms.

Don't take this as a stick in the eye from your 'Merican cousins, our
white house is trying to get us to grow our hair long so we can braid
it in queues before we start doing laundry for the Chinese. Its our
new Social Security investment plan in the future.

73's
Richard Clark, KB7QHC

2796. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 16:08:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tpnfd1lcu5otqmr5sr4h8gdd8bj8hqrfhc@4ax.com>
Source record: 73361

On Fri, 15 Jul 2005 07:03:00 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>having nothing to do with
>transmission lines or with the perfect laser example.
What a hoot! Your sacred cows mew.

2797. Re: Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 16:37:58 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <GDRBe.8362$8f7.2392@newsread1.news.pas.earthlink.net>
Source record: 73362

"Bob McGwier (N4HY)" <xxrwmcgwiexxxr@xxxxxcomcast.xxxxxnet> wrote in message
news:oLOdnWKS1qnNMkrfRVn-3Q@comcast.com...
> Mike Speed wrote:
> > What do you guys think of the Gap Antennas - they have the Titan, etc.
> >
> > How many of you have had experience with
> > elevated radials? Four elevated radials at the correct length and
> > height are supposed perform as well as many ground mounted radials.
> >
>
> Mine is sitting on a pile in the back of my yard, and replaced by
> a Steppir BigIR. On 40, and 80 the Titan is nearly worthless. On
> the other bands, it is marginally useful. Compared to a BigIR,
> fogettaboutit (I live in Jersey now). The BigIR acts as a 3/4
> wave on 15 through 6 meters.
>
> Bob
> N4HY

Hi Bob,

Would it be a good guess that your BigIR system includes a substantial
in-ground radial system? And do you have it guyed?

73, Ed, W6LOL

2798. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 16:52:00 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <QQRBe.8366$8f7.6598@newsread1.news.pas.earthlink.net>
Source record: 73363

Hi John,

It's too bad your window does not lend itself to the spacer-with-holes
approach, as I was also going to suggest that. Does that non-removable
screen have a wide frame? If so, maybe you could go through holes
in a window spacer, then through holes in the screen frame.

In any case, you could save yourself one of those holes in the wall by
letting your "ground" wire and the coax share one hole.

Better yet, you could forget about the "ground" wire altogether--at least
if you have a third-wire ground in your AC sockets. A long "ground"
wire will be too puny and inductive to be any kind of RF ground. And
if you have a power ground through the AC socket, adding a parallel
ground path will just confuse things, increase your lightning risk, and
possibly put you into a code violation.

I have only AC-socket power grounds in my second floor shack, and
I run QRO on 80 through 10 with no problems.

73, Ed, W6LOL

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:db78ckuvf1@mailhub227.itcs.purdue.edu...
> My shack is on the second floor, and I will be feeding a vertical with
> RG-213/U. In addition to the antenna feed line, I will also need to run a
> wire from the shack to a ground rod. The room housing the shack has one
> window, which is just to the left of the equipment table, and the window
is
> an aluminum single-hung type. The house wall has aluminum siding on the
> exterior.
>
> My current plan is to drill two holes, one for the coax and one for the
> ground wire, in the wood frame that is just below the bottom of the
window.
> I expect to sell this house in the next year or two, so I want to be able
to
> easily patch over any holes I have made in the wall.
>
> Any advice and information will be gratefully received.
>
>

2799. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 18:27:37 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <irvfd1h0fc030ijh90caduvflvbudi8fc6@4ax.com>
Source record: 73364
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Fri, 15 Jul 2005 02:57:28 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>
>> In all honesty to those that ridiculed the tower and it's associated
>> riggings etc...I have posted photos of the damage incurred from the
>> category 4 hurricane Dennis.
>
>
> According to my map you weren't hit by hurricane Dennis..... maybe a
>bit of tropical storm.... maybe.
>
>
>
> Ed
>

According to the weather map he was about 100 miles from the "eye" of
a tropical depression, which is one notch below a tropical storm.

bob
k5qwg

2800. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 18:48:21 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <db91ma$5bs$1@news.service.uci.edu>
Source record: 73366

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> I've already shown you where you made mistakes.
>
>
> What you have shown me are a bunch of strawmen with which
> I have no arguments. As a result, I have no idea upon what
> we disagree. Most of your technical assertions are true and
> I agree with them. When you derived the same total
> destructive interference equation that I had been posting,
> including the negative power term, virtually all of our
> arguments went away.
>
> How about technically explaining in detail just one
> mistake you think I have made? I need to understand
> a mistake before I can correct it.
>
> Here's a typical objection of yours, an implication with
> no technical content.
>
>> It is where you diverge from Hecht ... that I take issue.
>
>
> I sincerely have no idea where you think I diverge from Hecht
> and your refusal to enlighten me is interesting. In fact, I have
> quoted Hecht extensively and borrowed some of his concepts from
> optics to apply to RF. His treatments of superposition and
> interference are the best I have ever read. I am not aware
> of any divergence from Hecht on my part. Your assertion that I
> diverge from Hecht or Richard presuming to roll Hecht's eyes
> for him contains zero technical content from which I learn
> nothing.

And that is a wonderful example of the rhetorical way to hold your hands
over your ears and hum. :-)

So when does the article appear in Phys. Rev?

73, ac6xg

2801. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 20:17:53 UTC
From: KC4IH <nospam@no_server.com>
Message-ID: <sa6dnb7Rlvh9hEXfRVn-vA@adelphia.com>
Source record: 73367

Excellent!

"Polymath" <invalid@invalid.invalid> wrote in message
news:42d7d5b7$1_2@x-privat.org...
> Go and take a look.
>
> "Don Baker" <n2mcg@comcast.net> wrote in message
> news:i_idnX8EcYLi70vfRVn-1Q@comcast.com...
>>I would like to be able to determine if antenna is present at the end of a
>> piece of coax.
>
>

2802. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 20:24:12 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <db961d$na9$1@ctb-nnrp2.saix.net>
Source record: 73368

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
news:QQRBe.8366$8f7.6598@newsread1.news.pas.earthlink.net...
> Hi John,
>
> It's too bad your window does not lend itself to the spacer-with-holes
> approach, as I was also going to suggest that. Does that non-removable
> screen have a wide frame? If so, maybe you could go through holes
> in a window spacer, then through holes in the screen frame.
>
> In any case, you could save yourself one of those holes in the wall by
> letting your "ground" wire and the coax share one hole.
>
> Better yet, you could forget about the "ground" wire altogether--at least
> if you have a third-wire ground in your AC sockets. A long "ground"
> wire will be too puny and inductive to be any kind of RF ground. And
> if you have a power ground through the AC socket, adding a parallel
> ground path will just confuse things, increase your lightning risk, and
> possibly put you into a code violation.
>
> I have only AC-socket power grounds in my second floor shack, and
> I run QRO on 80 through 10 with no problems.
>
> 73, Ed, W6LOL
>
> "John N9JG" <john@gotwals.xremovey.com> wrote in message
> news:db78ckuvf1@mailhub227.itcs.purdue.edu...
>> My shack is on the second floor, and I will be feeding a vertical with
>> RG-213/U. In addition to the antenna feed line, I will also need to run a
>> wire from the shack to a ground rod. The room housing the shack has one
>> window, which is just to the left of the equipment table, and the window
> is
>> an aluminum single-hung type. The house wall has aluminum siding on the
>> exterior.
>>
>> My current plan is to drill two holes, one for the coax and one for the
>> ground wire, in the wood frame that is just below the bottom of the
> window.
>> I expect to sell this house in the next year or two, so I want to be able
> to
>> easily patch over any holes I have made in the wall.
>>
>> Any advice and information will be gratefully received.
>>
>>

>
>
Replace glass with a sheet of "Lexan" or "Perspex". Then you can drill all
the holes you like. If you move out, put the glass back in.

73
Roger ZR3RC

2803. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 21:08:20 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <db98k2vjb1@mailhub227.itcs.purdue.edu>
Source record: 73369

Thanks for your suggestion, but among other things that sheet of plastic
would get all frosted in the winter (it gets down to 0° F here), and the
heat loss through the pane (roughly 27 X 27") would be quite large. Finally,
the window has an aluminum frame and to remove either window is a big pain.

"Roger Conroy" <rogerconroy@nospam.hotmail.com> wrote in message
news:db961d$na9$1@ctb-nnrp2.saix.net...
> Replace glass with a sheet of "Lexan" or "Perspex". Then you can drill
> all the holes you like. If you move out, put the glass back in.
>
> 73
> Roger ZR3RC
>

2804. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 21:15:35 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <db991lvsk1@mailhub227.itcs.purdue.edu>
Source record: 73370

The non-removable screen has a narrow aluminum frame. My current plan is to drill through the wood sill, and patch the holes (both interior and exterior) when I leave.

The ground wire will be about 12 feet long, so for the higher bands the ground will be ineffective unless I tune it. Actually, unless I run the end of an antenna into the shack and load it against ground, I should not need an rf ground.

Thanks for your comments and suggestions.

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message news:QQRBe.8366$8f7.6598@newsread1.news.pas.earthlink.net...
> Hi John,
>
> It's too bad your window does not lend itself to the spacer-with-holes
> approach, as I was also going to suggest that. Does that non-removable
> screen have a wide frame? If so, maybe you could go through holes
> in a window spacer, then through holes in the screen frame.
>
> In any case, you could save yourself one of those holes in the wall by
> letting your "ground" wire and the coax share one hole.
>
> Better yet, you could forget about the "ground" wire altogether--at least
> if you have a third-wire ground in your AC sockets. A long "ground"
> wire will be too puny and inductive to be any kind of RF ground. And
> if you have a power ground through the AC socket, adding a parallel
> ground path will just confuse things, increase your lightning risk, and
> possibly put you into a code violation.
>
> I have only AC-socket power grounds in my second floor shack, and
> I run QRO on 80 through 10 with no problems.
>
> 73, Ed, W6LOL
>

2805. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 21:25:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d82ab2$1_1@spool9-west.superfeed.net>
Source record: 73371

Jim Kelley wrote:
> And that is a wonderful example of the rhetorical way to hold your hands
> over your ears and hum. :-)

Please note the technical content of your posting. Once you
derived the interference equations on your own, the physical
implications are clear and you apparently cannot come up with
a disagreement between us since my conclusions were based
on those very physics energy equations that you derived from
first principles. I am not aware of any further disagreement
between us. You are welcome to discuss what you perceive as
a disagreement either here or by email.

To summarize: EM energy cannot travel at any speed except the
speed of light, cannot exist without energy, and that energy
must be conserved. If reflected energy doesn't reach the source,
it must necessarily be flowing toward the load and therefore,
must have been re-reflected (as Walter Maxwell has been saying
for decades). Having only two directions in a transmission line
makes it easy. If EM energy is not traveling in one direction,
it has to be traveling in the only other direction available.

> So when does the article appear in Phys. Rev?

No news is probably not good news.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2806. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 22:09:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vscgd1pjb3it4ji9cqp5uh4m3k1j59alv6@4ax.com>
Source record: 73372

On Fri, 15 Jul 2005 16:25:01 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

> I am not aware of any further disagreement
>between us.

so short a memory....

On Wed, 13 Jul 2005 18:46:45 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:

>Born and Wolf has an
>interesting comment in the section on total reflection. "...the
>electromagnetic field in the second medium does not disappear, only
>there is no longer a flow of energy across the boundary."

your source, and yet unable or unwilling to confront this single
observation.

2807. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 22:49:27 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6eednVdvdJ8MoEXfRVn-ug@comcast.com>
Source record: 73373

John, you can use the wood or plastic insert without weather/winter
concerns. I used the wood insert for three years. I solved the 'winter'
problem [I'm in NH and winter temperature runs to -10F] by packing the
space with fiberglass insulation. I used about 3 inches thick and never
had a cool breeze. I had to be careful about keeping rain, etc. away fro
the fiberglass [it swallows water very easily].

John N9JG wrote:
> The non-removable screen has a narrow aluminum frame. My current plan is to
> drill through the wood sill, and patch the holes (both interior and
> exterior) when I leave.
>
> The ground wire will be about 12 feet long, so for the higher bands the
> ground will be ineffective unless I tune it. Actually, unless I run the end
> of an antenna into the shack and load it against ground, I should not need
> an rf ground.
>
> Thanks for your comments and suggestions.
>
>
> "Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
> news:QQRBe.8366$8f7.6598@newsread1.news.pas.earthlink.net...
>
>>Hi John,
>>
>>It's too bad your window does not lend itself to the spacer-with-holes
>>approach, as I was also going to suggest that. Does that non-removable
>>screen have a wide frame? If so, maybe you could go through holes
>>in a window spacer, then through holes in the screen frame.
>>
>>In any case, you could save yourself one of those holes in the wall by
>>letting your "ground" wire and the coax share one hole.
>>
>>Better yet, you could forget about the "ground" wire altogether--at least
>>if you have a third-wire ground in your AC sockets. A long "ground"
>>wire will be too puny and inductive to be any kind of RF ground. And
>>if you have a power ground through the AC socket, adding a parallel
>>ground path will just confuse things, increase your lightning risk, and
>>possibly put you into a code violation.
>>
>>I have only AC-socket power grounds in my second floor shack, and
>>I run QRO on 80 through 10 with no problems.
>>
>>73, Ed, W6LOL

>>
>
>
>

2808. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-15 23:15:37 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <db9g98boa1@news.service.uci.edu>
Source record: 73374

Richard Clark wrote:
> On Fri, 15 Jul 2005 16:25:01 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>I am not aware of any further disagreement
>>between us.
>
>
> so short a memory....
>
> On Wed, 13 Jul 2005 18:46:45 -0700, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>
>>Born and Wolf has an
>>interesting comment in the section on total reflection. "...the
>>electromagnetic field in the second medium does not disappear, only
>>there is no longer a flow of energy across the boundary."
>
>
> your source, and yet unable or unwilling to confront this single
> observation.

Apparently that would mean the waves aren't traveling at the speed of light and it would violate his "waves cannot exist without energy" law of physics, so therefore the book is wrong. Besides, as a reference, Hecht is far more maleable. ;-)

73, ac6xg

2809. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 00:54:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i5mgd151ph0a9h74bu878aakefv1mlrfj9@4ax.com>
Source record: 73275

On Fri, 15 Jul 2005 16:15:37 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>>>Born and Wolf has an
>>>interesting comment in the section on total reflection. "...the
>>>electromagnetic field in the second medium does not disappear, only
>>>there is no longer a flow of energy across the boundary."
>>
>>
>> your source, and yet unable or unwilling to confront this single
>> observation.
>
>Apparently that would mean the waves aren't traveling at the speed of
>light and it would violate his "waves cannot exist without energy" law
>of physics, so therefore the book is wrong. Besides, as a reference,
>Hecht is far more maleable. ;-)

Hi Jim,

It is far more reminiscent of his proof of total cancellation, if you
accept that total allows for several percent of non-totality.

Such vague indifference is like building the Golden Gate and finding a
gap of 40 or 50 feet in the middle. "Who's gonna' mind a couple of
percent? It spans the total bay, and THAT'S what counts!"
We have a bridge builder that wouldn't cross that bridge if he came to
it.

73's
Richard Clark, KB7QHC

2810. Warning - N9NLU (Dave Schmidt)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 01:17:23 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <DeZBe.4177$oZ.2615@newsread2.news.atl.earthlink.net>
Source record: 73276
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna

Just a warning to beware of dealing with N9NLU. He promised me 175 ft of RG-11 coax and I sent him a money order for it. He acknowledged receiving the money but has not sent the coax. This all occurred over a month and a half ago. He does not respond to E-mail.

I have not given up on him yet, but told him I would put out this warning.

Doug, N4IJ

2811. Pic of Butternut 80, 40, and 30 m coils

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 02:15:59 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <db9qktaou1@mailhub227.itcs.purdue.edu>
Source record: 73277

See http://s51.yousendit.com/d.aspx?id=33DG4LKQGWUW00WN9S7KHGFZKC
for a close-up of the 80, 40, and 30 meter coils (and caps) for the
Butternut HF6V vertical antenna.

2812. Re: Warning - N9NLU (Dave Schmidt)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 02:55:40 UTC
From: Kingfish Stevens <nospam@nospam.net>
Message-ID: <3htgd1laqd04dgnopn5nebtahe9lkjjsft@4ax.com>
Source record: 73278

I have dealt with him before with no problems, so this surprises me.
But, if you used a Postal money order, then he has committed mail
fraud, something that can get you snatched back into reality damn
fast.
Kingfish

On Sat, 16 Jul 2005 01:17:23 GMT, "DOUGLAS SNOWDEN"
<SNOWDEN@peoplepc.com> wrote:

>Just a warning to beware of dealing with N9NLU. He promised me 175 ft of
>RG-11 coax and I sent him a money order for it. He acknowledged receiving
>the money but has not sent the coax. This all occurred over a month and a
>half ago. He does not respond to E-mail.
>
>I have not given up on him yet, but told him I would put out this warning.
>
>Doug, N4IJ
>

2813. Re: Feed point chokes for J-poles: how close?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 03:04:45 UTC
From: Crazy George <munsch@atglobal.net>
Message-ID: <42d97be9_2@news1.prserv.net>
Source record: 73303

OOPS. Forgot-the bottom of the quarter wave sleeve choke needs to be connected to the shield.

--
Crazy George
The attglobal.net address is a SPAM trap. Please change that part to: att<dot>biz properly formatted.
"Ben Jackson" <ben@ben.com> wrote in message news:slrnddb199.kj.ben@saturn.home.ben.com...
> In a multi-band J-pole (where higher frequency j-poles are basically
> mounted on the long leg of the next lower frequency leg) can the feedpoint
> chokes for all the bands be located at the base of the antenna, or do they
> need to be kept right by the J's for each band? The "copper cactus" has
> the feeds running up the center pole and poking out holes in the tube
> for each feedpoint. That would require putting the chokes at the base of
> the mounting stub.
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

2814. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 03:27:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d87fa4_2@spool9-west.superfeed.net>
Source record: 73279

Richard Clark wrote:
> Jim Kelley <jwkelley@uci.edu> wrote:
>>Born and Wolf has an
>>interesting comment in the section on total reflection. "...the
>>electromagnetic field in the second medium does not disappear, only
>>there is no longer a flow of energy across the boundary."
>
> your source, and yet unable or unwilling to confront this single
> observation.

Since the EM energy doesn't flow across the match point boundary
toward the source, it must be redistributed in other directions.
In a transmission line, there is only one other direction, i.e.
the reflected energy is re-reflected at the match point. Wave
cancellation in a transmission line redistributes the energy in
the opposite direction as constructive interference.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

2815. Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 03:40:05 UTC
From: Elden Fenison <usenet@moondog.org>
Message-ID: <slrnddgsvb.2m9.usenet@macmini.moondog.org>
Source record: 73280

First off, let me say I've very green when it comes to the technical end of antennas. Most of the conversation in this group is way too deep for me.

I am moving into an apartment that is on the top floor of a two-story building. My deck is not only facing a large undeveloped area... but there is a large tree that is only about arm's-length off my deck. This tree is probably a good 100ft tall.

What I'm after here is HF antenna ideas. I am familiar with the idea of an end-fed (more or less horizontal) longwire antenna used in conjunction with something like an AH4 tuner. One of the problems here... if I shoot a wire up in this tree... it will be vertical. Another problem... because I'm on the second floor, there is no ground connection readily available.

I could have a vertical multi-band HF antenna on a short mast on my deck. But I'm thinking it might be advantageous to make use of this big tree right next to my deck.

I would appreciate any ideas. Thanks in advance.

--
-=Elden=-
http://www.moondog.org

2816. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 03:42:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d8831b$1_2@spool9-west.superfeed.net>
Source record: 73281

Jim Kelley wrote:
> Richard Clark wrote:
>> Jim Kelley <jwkelley@uci.edu wrote:
>>> Born and Wolf has an interesting comment in the section on total
>>> reflection. "...the electromagnetic field in the second medium does
>>> not disappear, only there is no longer a flow of energy across the
>>> boundary."
>>
>> your source, and yet unable or unwilling to confront this single
>> observation.
>
> Apparently that would mean the waves aren't traveling at the speed of
> light and it would violate his "waves cannot exist without energy" law
> of physics, so therefore the book is wrong.

Wrong. All it means is that reflected energy doesn't make it across
the match point. Seems I read that in _Reflections_ a quarter century
ago. Reflected energy traveling at the speed of light is re-reflected
at the speed of light in the opposite direction. Wave cancellation
accomplishes that feat. Regarding wave cancellation:

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html

"... when two waves of equal amplitude and wavelength that are 180-degrees
out of phase with each other meet, they are (canceled but) not actually
annihilated. All of the photon energy present in these waves must somehow
be recovered or redistributed in a new direction, according to the law of
energy conservation. (There are only two directions available in a transmission
line.) Instead, upon meeting, the photons are redistributed to regions that
permit constructive interference, so the effect should be considered as a
redistribution of light waves and photon energy (back toward the load) rather
than the spontaneous construction or destruction of light." (Words in parentheses
are mine added for clarity.)
--
73, Cecil http://www.qsl.net/w5dxp

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2817. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 05:04:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dba4gsjtg1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73282

"Elden Fenison" <usenet@moondog.org> wrote in message
news:slrnddgsvb.2m9.usenet@macmini.moondog.org...
> First off, let me say I've very green when it comes to the technical
end
> of antennas. Most of the conversation in this group is way too deep
for
> me.
>
> I am moving into an apartment that is on the top floor of a
two-story
> building. My deck is not only facing a large undeveloped area... but
> there is a large tree that is only about arm's-length off my deck.
This
> tree is probably a good 100ft tall.
>
> What I'm after here is HF antenna ideas. I am familiar with the idea
of
> an end-fed (more or less horizontal) longwire antenna used in
> conjunction with something like an AH4 tuner. One of the problems
> here... if I shoot a wire up in this tree... it will be vertical.
> Another problem... because I'm on the second floor, there is no
ground
> connection readily available.
>
> I could have a vertical multi-band HF antenna on a short mast on my
> deck. But I'm thinking it might be advantageous to make use of this
big
> tree right next to my deck.
>
> I would appreciate any ideas. Thanks in advance.
>
> --
> -=Elden=-
> http://www.moondog.org
==========

Elden,

Go vertical or steeply sloping. Better all-round multi-band
performance than lower horizontal long wire, specially DX at the lower
frequencies. Don't worry about the wire getting mixed up with the
tree. Just avoid direct contact with foliage. Use plastic insulated
wire. No need to bother with loading coils which will spoil the
multi-band properties. Use a tuner at the lower end of the wire near
to the transmitter. A modest ground system will suffice. Make use of

2 or 3 spaced connections to the domestic plumbing system. If possible run a wire down the outside wall of the building to a few radials. A single ground rod at the bottom end will be practically useless. Disconnect the rod and you will notice no difference. You could consider lengthening the vertical antenna by taking the wire sideways or sloping downwards from the top for an excellent 1/4-wave or 0.3-wave, inverted-L performance on 160m.

Reg, G4FGQ.

2818. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 05:29:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p86hd1hfvtb9m7o1nbmtf871u1o7rnp72i@4ax.com>
Source record: 73283

On Fri, 15 Jul 2005 22:27:25 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>>> "...the electromagnetic field in the second medium does not disappear,
> Wave cancellation in a transmission line redistributes the energy in
>the opposite direction as constructive interference.

More imbalance in the balance equation passing as "totality." :-)

It is established there is "some" amount of energy in the "second"
medium (in other words, beyond the match point as I have
demonstrated); it then follows there is not a total reflection (same
demonstration), and certainly not as constructive (to what?)
interference.

2819. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 09:40:04 UTC
From: Elden Fenison <usenet@moondog.org>
Message-ID: <slrnddhjk9.2m9.usenet@macmini.moondog.org>
Source record: 73284

```
* Reg Edwards [07/16/2005 05:04 UTC]:
> Go vertical or steeply sloping. Better all-round multi-band
> performance than lower horizontal long wire, specially DX at the lower
> frequencies.

Thanks for the suggestion. I've spent much of the evening reading the
ARRL "Stealth Amateur Radio" book. Interesting stuff. It appears that in
addition to the wire up in the tree, I'll also need some sort of RF
ground. Maybe shooting a very thin wire over the top of my building
would do the trick.

Another thing I'm considering rather than a wire in the tree, is a
Hustler 6-BTV on a short mast. I'm not clear as to which would be likely
to perform better. But one thing... with the Hustler I wouldn't have to
spring for an AH-4 tuner.

--
-=Elden=-
http://www.moondog.org
```

2820. Re: yaesu vx-5r or kenwood th-f7????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 10:20:31 UTC
From: Ed <no1@home.not>
Message-ID: <X9OdnTIYALJOQkXfRVn-2w@comcast.com>
Source record: 73285
Cross-posted to:
alt.ham-radio.mods,alt.ham-radio.vhf-uhf,de.comm.ham,rec.radio.amateur.antenna,rec.radio.amateur.dx,uk.radio.amateur

Steve Terry wrote:
> "c" <no@spam.com> wrote in message
> news:3f060936$0$45378$1b62eedf@news.wanadoo.nl...
>
>>Hello All,
>>I want to buy a handheld for 2, and 70cm.
>>I was thinking to buy a kenwood th-f7e, or
>>a yeasu vx-5r.
>>They are now in stock, the price is the same, it's
>>399 euro.
>>
>
> Got something against the VX-7 ?
> the VX-5 is now obsolete
>
> Steve Terry
>
>

Hmmmmm... last time I used mine it worked just fine. It may not be
manufactured any longer, but it is far from obsolete.

Ed

2821. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 12:08:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d8f9b0$1_1@spool9-west.superfeed.net>
Source record: 73286

Elden Fenison wrote:
> It appears that in
> addition to the wire up in the tree, I'll also need some sort of RF
> ground.

You might consider a vertical dipole fed with ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

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2822. GPA 3 Fritzel

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 12:17:47 UTC
From: Juul Geleick <gjgeleick@hetnet.nl>
Message-ID: <gjgeleick-5AC0B4.14174716072005@pnews10.wxs.nl>
Source record: 73287

Beste mede amateurs,
Ik heb een vertical GPA 3 van Fritzel gekregen en die heeft een aantal (3) radialen.
Nu ga ik binnen kort verhuizen en wil die antenne zo'n 1mtr. boven de grond plaatsen en de radialen in de grond leggen (zo'n 10cm). Dit wil ik doen door ze recht naar beneden te laten lopen (ong 1 mtr dus)

Is er iemand van jullie die ervaring heeft met

a. de GPA 3
b. de plaatsing van de radialen

dank,

Juul Geleick - PE0GJG

2823. Re: J Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 12:25:30 UTC
From: JaErGiMa <jaergima@tenalp.ln>
Message-ID: <h4uhd19fp0ha3hjutum2n2nbne0e8ptc8q@4ax.com>
Source record: 73288

On Thu, 14 Jul 2005 22:01:35 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>
>>> I have a copper tube J pole for 2m. Is there a good way to convert it
>>> to 2M/440?
>
>>Try using it as is. I have a 2m J I made many years ago & it has a
>>decent SWR on 440 & seems to work fine.
>
>They'll usually work as-is on 440, but aren't entirely efficient. SWR
>is higher, and so is the radiation angle - a good deal of power ends
>up warming the nearby treetops and hilltops rather than going out
>towards the horizon.

The take-off angle is about 35degs!

>
>I've seen at least three ways suggested to construct a more-effective
>dualband J-pole:
>
>[1] Separate matching arm and feedline for 440 (the "copper cactus"
> design)
>
>[2] Adding a downwards-pointing, shorted-at-the-top quarter-wavelength
> stub (coaxial or arm) partway up the radiator, leaving the distance
> between the open end of the stub and the top of the main matching arm
> equal to 1/2 wavelength at 440. The stub presents a high
> impedance to the 440 power, constraining its current to remain
> mostly in the 1/20-wavelength-at-440 part of the radiator.
>
> Edison Fong WB6IQN published a design in QST (February 2003),
> which uses this approach to create an improved 2-meter/440
> twinlead J-pole design. The same trick ought to work with a
> copper pipe J-pole, I imagine. [There are some publishing errors
> in the QST version of Ed's paper... he's got a corrected version
> available, I believe.]

Basicly an isolated piece of copper/alu pipe in the middle of the
radiator will convert the 2m j-pole into a 70cm collinear.
This trick will give you extra gain because it downs the angle of
radiation for that band considerable.

G3JAM (I'm told) tried to integrate a J-pole into a piece of PVC pipe,
back in 1981 via Wireles World. He was forced to find his solution
into a hairpin loop and variable coax in order to achieve easy and

correct matching.

I made one of flat alu strip placed in a pvc tube based on the G3JAM design, you find this drawing here:
http://radiogaga.e-dentify.nl/pa3abk/Townsman_uk.gif
To be honest the drawing is from a Dutch hammagazine Electron jan 1991 and is based on the principle which was outlined by G3JAM in 1981.

Also have a look at the page of pa0fbk
http://www.qsl.net/pa0fbk/hampage_uk.htm (scroll down) he is using coax and ends up into a slim design.

View it's easy to slide a piece of pipe over the radiator it's worth to try it out. Just isolate it from the radiator. It will not disturb the SWR on 2M.
Before you go, note down the signal report of a remote repeater (avoid that one which is at a angle of 35 degs on a hilltop), so you can see the difference.
Jan/pa3abk

2824. Re: GPA 3 Fritzel

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 12:47:51 UTC
From: Fabian Kurz <usenet@fkurz.net>
Message-ID: <3jsdvnFrm628U1@news.dfncis.de>
Source record: 73290

Juul Geleick wrote:
> Beste mede amateurs,
> Ik heb een vertical GPA 3 van Fritzel gekregen en die heeft een aantal
> (3) radialen.

There is no GPA 3 afaik, I suppose you mean the GPA 30?

> Is er iemand van jullie die ervaring heeft met
>
> a. de GPA 3

I used the during a trip to TF and OY in 2001. It works, but
that's about it. Not too much to expect from this antenna with 3
radials only, but I guess with additional radials it will
perform a lot better.

> b. de plaatsing van de radialen

At http://www.swschwedt.de/kunden/dm2ble/dok5-8.htm there are
several diagrams which show the radiation pattern at different
radial angles. Looks like 135 degrees yields the optimum gain.

73,
--
Fabian Kurz, DJ1YFK * Dresden, Germany * http://fkurz.net/

2825. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 12:48:29 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <42D9021D.3010606@bloomer.net>
Source record: 73289

My personal favorite is to get a 2" or 3" (depending on how many runs of coax you plan to have going out) plastic LB box from a home supply place. Take a hole saw of appropriate size and drill through your wall (be sure to drill between studs!! Also assuming wood construction on the house) and put in the LB box. Once you have the coax(es) run through, fill the rest of the inside of the box with fiberglas insulation to keep the bugs out. If you're worried about critters like mice, get some of the expanding foam insulation that comes in a can and fill the LB with that. Once you do that, it might be a bit difficult to add coax runs later...

Scott
N0EDV

John N9JG wrote:

> That approach had crossed my mind, but the screen in the window cannot be
> removed without first removing the hung window. Removing the window is a
> real pain in the arse.
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:a4bed1dt5ki5p5st4gf3vi842bjact5mls@4ax.com...
>
>>On Thu, 14 Jul 2005 21:52:06 -0500, "John N9JG"
>><john@gotwals.xremovey.com> wrote:
>>
>>
>>>My current plan is to drill two holes, one for the coax and one for the
>>>ground wire, in the wood frame that is just below the bottom of the
>>>window.
>>
>>Hi John,
>>
>>Open the window 3".
>>
>>Get a piece of wood as wide as the window, and that same 3" tall.
>>
>>Insert the drilled piece of wood into the window.
>>
>>Close the window.
>>
>>Bar the window against 2nd story cat burglars.
>>
>>73's
>>Richard Clark, KB7QHC

>
>
>

2826. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 12:52:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d9040e$1_2@spool9-west.superfeed.net>
Source record: 73291

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Wave cancellation in a transmission line redistributes the energy in
>>the opposite direction as constructive interference.
>
> It is established there is "some" amount of energy in the "second"
> medium (in other words, beyond the match point as I have
> demonstrated); it then follows there is not a total reflection (same
> demonstration), and certainly not as constructive (to what?)
> interference.

What's wrong with this picture? Looking at it upside down?
With the source on the left, the second medium is to the right
(load side) of the first medium. Of course, there is energy to
the right of the match point - because of standing waves, more
energy than exists in the first medium to the left of the match point.
There's no reflected energy in the first medium to the left of the
match point. It appears to look something like my earlier example:

```
1w | 1/4WL |
laser-----air-----|---thin-film---|---glass---...
1st medium | 2nd medium | 3rd medium
n=1.0 n=1.2222 n=1.4938
Pfor=1w Pfor=1.0101w Pfor=1w
Pref=0w Pref=0.0101w Pref=0w
```

Reflected energy is eliminated at the air to thin-film interface
because of wave cancellation (total destructive interference).
According to Hecht and every other reference I've seen, the
reflected energy involved in the wave cancellation event at the
match point joins the forward wave in the 2nd medium. Of course,
that increases the amount of energy in the 2nd medium beyond what
exists in the 1st medium. The necessary (total constructive inter-
ference) energy is contained in those standing waves in the 2nd medium.

www.mellesgriot.com/products/optics/oc_2_1.htm

"Clearly, if the wavelength of the incident light and the thickness
of the film are such that a phase difference exists between reflections
of p, then reflected wavefronts interfere destructively, and overall
reflected intensity is a minimum. If the two reflections are of equal
amplitude, then this amplitude (and hence intensity) minimum will be
zero." [total destructive interference]

"In the absence of absorption or scatter, the principle of conservation
of energy indicates all 'lost' reflected intensity will appear as
enhanced intensity [constructive interference energy] in the transmitted
beam. The sum of the reflected and transmitted beam intensities is always
equal to the incident intensity. This important fact has been confirmed
experimentally." [my notes]

In the above example, the laser's transmitted beam intensity is 1w.
In the 2nd medium, the reflected beam intensity is 0.0101w. The incident
intensity upon the 3rd medium is 1.0101w. "This important fact has been
confirmed experimentally." The above example is equivalent to a
matched 1/4WL transmission line section having the following
lossless characteristics.

1w XMTR--50 ohm coax--+--1/4WL 61.2 ohm coax--+--75 ohm coax--75 ohm load
Pfor=1w Pfor=1.0101w Pfor=1w
Pref=0w Pref=0.0101w Pref=0w
--
73, Cecil http://www.qsl.net/w5dxp

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2827. what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 15:08:12 UTC
From: DAVID BROWNE <david.browne5@btinternet.com>
Message-ID: <wp9Ce.791$vv6.365@newsfe6-gui.ntli.net>
Source record: 73060

what is best for 10-40m windom or g5rv half size

thanks dave browne 2e0 dmb

2828. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 15:33:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <01aid1tmrojvalnv11turjhemcdd7h08h0@4ax.com>
Source record: 73292

On Sat, 16 Jul 2005 07:52:23 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>What's wrong with this picture?

Mewing sacred cows. You got it wrong the last time, it is the same
this time, ex post facto it is still wrong. Whoring the names of
references that you subsequently dismiss, deny or impeach hardly
constitutes proof.

2829. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 15:49:47 UTC
From: Larry <mcmlviii@comcast.net>
Message-ID: <3jsol3Frk2rhU3@individual.net>
Source record: 73293
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:
> In all honesty to those that ridiculed the tower and it's associated
> riggings etc...I have posted photos of the damage incurred from the category
> 4 hurricane Dennis. I never expected this kind of result...live and learn I
> suppose. Here is the direct link..
>
> 1. http://deepsouthnet.net/storm_damage.html
>

Charlie, there is only one photo on that web page, shown twice. Do you
have a photo of any damage you took after the storm? I could not find
one in http://deepsouthnet.net/images/.

73
N1POP

2830. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 16:15:30 UTC
From: Frank 2 <francis@spamless.carolyns-creations.com>
Message-ID: <CoaCe.113800$HI.97043@edtnps84>
Source record: 73294

"DAVID BROWNE" <david.browne5@btinternet.com> wrote in message
news:wp9Ce.791$vv6.365@newsfe6-gui.ntli.net...
> what is best for 10-40m windom or g5rv half size
>
> thanks dave browne 2e0 dmb

Both antennas are single wires. All single wires of the same length perform the same. The only differences between the antennas are the losses on the transmission lines. The lowest loss transmission lines are open wire, or ladder line.

Regards,

Frank

2831. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 17:20:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d942e7$1_2@spool9-west.superfeed.net>
Source record: 73295

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>What's wrong with this picture?
>
> Mewing sacred cows. You got it wrong the last time, it is the same
> this time, ex post facto it is still wrong. Whoring the names of
> references that you subsequently dismiss, deny or impeach hardly
> constitutes proof.

Assertions with no proof - ad hominem attacks - physician,
heal thyself. I furnished plenty of technical content.
You furnished less than none.
--
73, Cecil http://www.qsl.net/w5dxp

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2832. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 18:39:22 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns969576FBBFCBBspectrumhogstarbandn@207.106.92.175>
Source record: 73296
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

> In all honesty to those that ridiculed the tower and it's associated
> riggings etc...I have posted photos of the damage incurred from the
> category 4 hurricane Dennis. I never expected this kind of
> result...live and learn I suppose. Here is the direct link..
>
> 1. http://deepsouthnet.net/storm_damage.html
>

Glad your antenna system came through unscathed during your spell of
increased wind. My neighbor came home from the bar, drunk, sucessfully
too. Glad you both are unscathed!

Ed

2833. Re: GPA 3 Fritzel

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 18:43:26 UTC
From: Juul Geleick <gjgeleick@hetnet.nl>
Message-ID: <gjgeleick-A2E18C.20432616072005@pnews10.wxs.nl>
Source record: 73298

In article <3jsdvnFrm628U1@news.dfncis.de>,
Fabian Kurz <usenet@fkurz.net> wrote:

> Juul Geleick wrote:
> > Beste mede amateurs,
> > Ik heb een vertical GPA 3 van Fritzel gekregen en die heeft een aantal
> > (3) radialen.
>
> There is no GPA 3 afaik, I suppose you mean the GPA 30?
>
> > Is er iemand van jullie die ervaring heeft met
> >
> > a. de GPA 3
>
> I used the during a trip to TF and OY in 2001. It works, but
> that's about it. Not too much to expect from this antenna with 3
> radials only, but I guess with additional radials it will
> perform a lot better.
>
> > b. de plaatsing van de radialen
>
> At http://www.swschwedt.de/kunden/dm2ble/dok5-8.htm there are
> several diagrams which show the radiation pattern at different
> radial angles. Looks like 135 degrees yields the optimum gain.
>
> 73,

Hi Fabian,

thanks a lot for your remarks. Stupid from me for writing in Dutch.
Sorry for the others!

Juul -Pe0GJG

2834. Quad/ beam for portables activities ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 18:45:33 UTC
From: Thierry <->
Message-ID: <42d955cc$1@news.vo.lu>
Source record: 73297

Hi,

I need your advice. Here are my needs :
I'd like to DXing on portable at 100W SSB. I am looking for a directive antenna displaying an interesting gain and F/B. Another factor to consider is the price but I am not ready to build the antenna myself. The rotation of the mast/antenna will be insured manually.
I have thus to use the lightest 2-ele quad or a 3-ele beam.

My weight being close to 65 kg the weight of this antenna should be of 20 kg max (at first sight. I don't exactly know what weight I canb lift up, but probably not much)
If this is a quad I think that I can still place it 3-5m high max (the lower string being 1 to 2m over ground), for sure much higher for the beam.
The overall length of the antenna cannot exceed 4-5m and the possible boom must be telescopic or easy to assemble as all parts could enter in a medium size car (so elements to assemble must be 2.5m long max or so)

So I am looking for a dealer manufacturering light elements or collapsible antennas or easy to setup (in less than 30 min-1h)
At last I prefer a full length quad or, if that exists, a quad using traps (but I've never seen that) but the beam could use traps and the ends.
This antenna must be tuned on 20m or maybe a tri-bander 20-15-10 or 20-17-15m

Is this a dream or not ? If not, do you know some manufacturers providing such antennas ?

Excepted Hexa-Beam Light models, I don't really know other dealers (and BBQ is a shortened quad and quite heavy and Titanex sells only large beams and verticals).
Do you have some good experience in the field in erecting such /P beams ?.
If you do, what model do (did) you use ?

Thanks for your comments

Thierry
ON4SKY
http://www.astrosurf.org/lombry/menu-qsl.htm

2835. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 19:06:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3fmid1lc9g29fmahm0e8f2j1a806au0i33@4ax.com>
Source record: 73299

On Sat, 16 Jul 2005 12:20:32 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>You furnished less than none.

Short memory in long supply. The complete treatment in math was
offered successfully rebutting your proposition and you have shown
nothing new. The negation stands.

2836. Re: GPA 3 Fritzel

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 19:08:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5nmid15grhn0d1atlnmitrm4o73bn4pa0t@4ax.com>
Source record: 73300

On Sat, 16 Jul 2005 20:43:26 +0200, Juul Geleick <gjgeleick@hetnet.nl>
wrote:

> Stupid from me for writing in Dutch.
>Sorry for the others!

Hi Juul,

Last time I tried using a web translator for English to Dutch - the
result was comedy. :-)

73's
Richard Clark, KB7QHC

2837. Re: GPA 3 Fritzel

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 19:37:17 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <PldCe.169$pP3.10087571@news.sisna.com>
Source record: 73301

I am still hunting for a "Shakespeare to English" translator--let me
know if you see one...

John

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:5nmid15grhn0d1atlnmitrm4o73bn4pa0t@4ax.com...
> On Sat, 16 Jul 2005 20:43:26 +0200, Juul Geleick
> <gjgeleick@hetnet.nl>
> wrote:
>
>> Stupid from me for writing in Dutch.
>>Sorry for the others!
>
> Hi Juul,
>
> Last time I tried using a web translator for English to Dutch - the
> result was comedy. :-)
>
> 73's
> Richard Clark, KB7QHC

2838. Antenna Aperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 20:06:56 UTC
From: "Michael R. Davis" <mrdavis01@hotmail.com>
Message-ID: <iKdCe.9509$1Y1.5084@fe02.lga>
Source record: 73302

I'm reading an article about antenna aperature. Is it correct to state that dipoles have a very large aperature and something like a horn assembly used in microwaves has a tiny aperature except for wavelength for which the horn is designed?

Just trying to get a handle on this advanced theory.

2839. Re: Antenna Aperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 21:20:25 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <tSeCe.135979$tt5.104203@edtnps90>
Source record: 73304

"Michael R. Davis" <mrdavis01@hotmail.com> wrote in message
news:iKdCe.9509$1Y1.5084@fe02.lga...
> I'm reading an article about antenna aperature. Is it correct to state
> that dipoles have a very large aperature and something like a horn
> assembly used in microwaves has a tiny aperature except for wavelength for
> which the horn is designed?
>
> Just trying to get a handle on this advanced theory.

Dipole aperture is the capture area which translates an incident field, in W/m^2, to the actual power received by the dipole. For example the aperture for a half wave dipole is 0.13(Lambda)^2, where Lambda is the wavelength in meters. A 40 m half wave dipole would therefore have an aperture of 52 m^2. A horn aperture, and also a parabolic dish, aperture is the physical area of the mouth of the horn.

Regards.

Frank

2840. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 21:24:01 UTC
From: Charlie <chas@aol.com>
Message-ID: <11diuoskjn7hrce@news.supernews.com>
Source record: 73305
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Hi Larry,
I intentionally posted the very same identical mage twice since there was no damage and no change in the image even had I taken one after the storm cleared. There was no damage here at all to the station in any way.

I NEVER realized my photographic prowess would cause such a stir which included accusations of "misrepresentation" "spoofing" "nice try" and comments about my "shit tower" "crappy installation" etc. I was even ridiculed for not "being in the eye of the hurricane". Gee maybe next time I can request a 200 mph cat 5 hurricane to plow through my backyard.

Be that as it may since human nature and the heart of man are such I simply wanted to show that there was absolutely no damage.

So to "prove" there was no damage here is a link to a snap I just took of the tower. Geesh Louise......
1. http://deepsouthnet.net/images/100_5512.jpg

--

Charlie
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Larry" <mcmlviii@comcast.net> wrote in message
news:3jsol3Frk2rhU3@individual.net...
> Charlie wrote:
>> In all honesty to those that ridiculed the tower and it's associated
>> riggings etc...I have posted photos of the damage incurred from the
>> category 4 hurricane Dennis. I never expected this kind of result...live
>> and learn I suppose. Here is the direct link..
>>
>> 1. http://deepsouthnet.net/storm_damage.html
>>
>
> Charlie, there is only one photo on that web page, shown twice. Do you
> have a photo of any damage you took after the storm? I could not find one
> in http://deepsouthnet.net/images/.
>
> 73
> N1POP

2841. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 21:24:55 UTC
From: Charlie <chas@aol.com>
Message-ID: <11diuqh6edfqqf7@news.supernews.com>
Source record: 73306
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

TY Ed....President Bush has authorized emergency disaster funds for our
county due to "increased winds!"

--

Charlie
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns969576FBBFCBBspectrumhogstarbandn@207.106.92.175...
>
>> In all honesty to those that ridiculed the tower and it's associated
>> riggings etc...I have posted photos of the damage incurred from the
>> category 4 hurricane Dennis. I never expected this kind of
>> result...live and learn I suppose. Here is the direct link..
>>
>> 1. http://deepsouthnet.net/storm_damage.html
>>
>
>
> Glad your antenna system came through unscathed during your spell of
> increased wind. My neighbor came home from the bar, drunk, sucessfully
> too. Glad you both are unscathed!
>
>
> Ed

2842. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 21:42:15 UTC
From: spaceyfi <spaceyfi5@yahoo.com>
Message-ID: <1121550135.663755.202010@g14g2000cwa.googlegroups.com>
Source record: 73307
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

It may not reached that area but it was a large storm so you could get dmaging winds hundreds of miles from where the hurricane hit. While it looks like the pictures don't show damage, it could be further down.

Susan
Future Ham

2843. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 22:07:13 UTC
From: Charlie <chas@aol.com>
Message-ID: <11dj19nifnkpuf8@news.supernews.com>
Source record: 73308
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Good God Almighty.....

What will it take to satisfy you folks? How about free airfare to
Mississippi and a personal inspection of my station? For Pete's sake!!!!!

--

Charlie
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"spaceyfi" <spaceyfi5@yahoo.com> wrote in message
news:1121550135.663755.202010@g14g2000cwa.googlegroups.com...
> It may not reached that area but it was a large storm so you could get
> dmaging winds hundreds of miles from where the hurricane hit. While it
> looks like the pictures don't show damage, it could be further down.
>
> Susan
> Future Ham
>

2844. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 22:15:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d98824$1_1@spool9-west.superfeed.net>
Source record: 73309

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>You furnished less than none.
>
> Short memory in long supply. The complete treatment in math was
> offered successfully rebutting your proposition and you have shown
> nothing new. The negation stands.

There is zero net refraction, given by definition. So all your
refraction math was irrelevant and negated nothing. All that
exists in the example is forward energy and reflected energy
which you chose not to deal with at all.

The reason that optical engineers know so much more about power
and energy in EM waves is because that's about all they could
measure for 100 years. They don't have the luxury of measuring
the voltage in an EM light wave. And using voltage to analyze
photonic EM energy waves doesn't reveal the whole story.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2845. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 22:18:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d988a1$1_1@spool9-west.superfeed.net>
Source record: 73310
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:
> What will it take to satisfy you folks?

Probably a bona fide after photo.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2846. Re: GPA 3 Fritzel

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 22:18:50 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <eJfCe.3883$_%4.1510@newssvr14.news.prodigy.com>
Source record: 73311

At least , for you, it was a comedy-- for me, and my poor German,
Spanish,and "Nihongo", usually good for a face slap, or lots of Guffaws!
Na-Na Ju San-- Via con Dios, Afvitersein -- Jim NN7K

Richard Clark wrote:

>
> Hi Juul,
>
> Last time I tried using a web translator for English to Dutch - the
> result was comedy. :-)
>
> 73's
> Richard Clark, KB7QHC

2847. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 22:49:37 UTC
From: Charlie <chas@aol.com>
Message-ID: <11dj3p9kmo00id6@news.supernews.com>
Source record: 73312
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Hi Cecil,
Here is the link (again) to the "bona fide" - A F T E R - photo just today.

But ..I can hear it already.."You already repaired the damage!"

1. http://deepsouthnet.net/images/100_5512.jpg

--

Charlie
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42d988a1$1_1@spool9-west.superfeed.net...
> Charlie wrote:
>> What will it take to satisfy you folks?
>
> Probably a bona fide after photo.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

2848. Vertical Radiation Pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 23:03:25 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <vmgCe.985$LC6.606@fe06.lga>
Source record: 73313

This may be a little off topic, but here goes anyway.

I have read somewhere that vertical antennas radiate almost nothing
below the lowest elevation of the antenna.

So, I was wondering if a wireless router also radiates almost nothing
below the router. (The antenna of a wireless router is usually
pointing up.) These devices usually operate at 2.45 GHz.

I know that routers usually have other means of security, but I was
wondering if I could also locate the router such that the radiation
was limited or non-existent in one direction.

Thanks, jimbo

2849. Re: Vertical Radiation Pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 23:07:19 UTC
From: dplatt@radagast.org
Message-ID: <11dj4p76id40s82@corp.supernews.com>
Source record: 73314

>This may be a little off topic, but here goes anyway.
>
>I have read somewhere that vertical antennas radiate almost nothing
>below the lowest elevation of the antenna.

Well, a half-wave vertical dipole in free space radiates a pattern aimed towards the horizon. There's significant radiation both above and below the horizon. There are deep nulls directly above and below the antenna, but the null isn't terribly deep once you get more than, say, 20 degrees on one side of the axis of the antenna.

>I know that routers usually have other means of security, but I was
>wondering if I could also locate the router such that the radiation
>was limited or non-existent in one direction.

I wouldn't count on this at all. Although the pattern will be weaker in the axis of the antenna, this sort of antenna system is not in free space. There are all sorts of reflections from metal objects in the building, and these will tend to fill in the nulls to some extent.

The nulling is sufficient to help reduce interference (to some extent) between access points located right above one another on different floors of a building, but it's not completely effective even at that, and should not be counted on for security or privacy.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2850. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 23:10:34 UTC
From: zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net
Message-ID: <42d99398.104519552@news.iol.ie>
Source record: 73315
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard Clark <kb7qhc@comcast.net> wrote:

: The British Empire must, as one would expect, have an Emperor, and
: particularly a British Emperor. If we scan the list of Royals over
: time, certainly Britain had an Emperor (Carausius) during the Roman

i think (80% sure-ish) you'll find that
ONE of the lesser known titles of
HRH QE II is EMPEROR

2851. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 23:14:01 UTC
From: zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net
Message-ID: <42d993f7.104614355@news.iol.ie>
Source record: 73316
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Fred W4JLE" <w4jle@w4jle.com> wrote:

: We, or more correctly our forefathers, were patriots as far as we were
: concerned, revolutionists, ingrates, and other labels as perceived by the
: British oppressors.

exactly my point.

some of the countries of TODAY who seem to POLICE THE WORLD
were themselves CREATED as a result of acts of TERRORISM.

Some of these countries ACTUALLY CELEBRATE the results of
this TERRORISM on some day during the year.

A topic usually IGNORED.

2852. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-16 23:29:57 UTC
From: Gerard Lynch <gerrylynch@freenetname.co.uk>
Message-ID: <cb-dnVWD79PkBUTfRVnyiw@brightview.com>
Source record: 73317
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"ZZZZPK "
<zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net>
wrote in message news:42d99398.104519552@news.iol.ie...
> Richard Clark <kb7qhc@comcast.net> wrote:
>
> : The British Empire must, as one would expect, have an Emperor, and
> : particularly a British Emperor. If we scan the list of Royals over
> : time, certainly Britain had an Emperor (Carausius) during the Roman
>
>
> i think (80% sure-ish) you'll find that
> ONE of the lesser known titles of
> HRH QE II is EMPEROR

Not since 1947.

--
73

Gerry G0RTN
Vanity Page at http://www.gerrylynch.co.uk

2853. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 00:01:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hr6jd15rt755h5ee9v1bi1d00sdgqoi9m9@4ax.com>
Source record: 73318

On Sat, 16 Jul 2005 17:15:58 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>There is zero net refraction, given by definition. So all your
>refraction math was irrelevant and negated nothing.

The math remains inviolate, exhibits the laws of conservation, and
negate your premise. So far you have added nothing to offset this.
>
>The reason that optical engineers know so much more about power
>and energy in EM waves is because

Uh-huh. Against myself, a practicing and successful optical engineer
with optical patents; you, a xerox jockey, are comparing yourself?
:-)

Bubba, you can't even answer simple power questions like:
You have a one square cm target that is irradiated with
64 microWatts of 660nM radiation at a distance of 1M
from a light bulb. (which is less than the power reflected from
one of your example interfaces and still visibly quite bright.)

How much power is found in the 555nM spectrum expressed
in Lux?

Both are power spectrums within a 30nM BW.

How much total power is the light bulb radiating?

Optical engineers can answer this, and I will by midnight. ;-)

No one expects a binary engineer can (example of a simple 1 or 0).

2854. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 00:48:50 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9695B59D6AB58spectrumhogstarbandn@207.106.92.175>
Source record: 73319
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Charlie" <chas@aol.com> wrote in news:11diuqh6edfqqf7@news.supernews.com:

> TY Ed....President Bush has authorized emergency disaster funds for our
> county due to "increased winds!"
>

Yeah, I heard. Winds gusting to 59 mph. Just a few months ago we had
winds gusting to 70 here on the Pacific North West coast. Wonder why no
one got disaster funds?

Ed

2855. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 00:59:18 UTC
From: troll finder 2005 <deeeenoregistrar@hotmail.co.uk>
Message-ID: <G3iCe.1412$Hd4.1200@newsfe2-gui.ntli.net>
Source record: 73320
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns9695B59D6AB58spectrumhogstarbandn@207.106.92.175...
> "Charlie" <chas@aol.com> wrote in news:11diuqh6edfqqf7@news.supernews.com:
>
> > TY Ed....President Bush has authorized emergency disaster funds for our
> > county due to "increased winds!"
> >
>
>
>
> Yeah, I heard. Winds gusting to 59 mph. Just a few months ago we
had
> winds gusting to 70 here on the Pacific North West coast. Wonder why no
> one got disaster funds?
>
>
>
> Ed

yea??
well my missus just let rip
it messured 156 on the rectum scale.
do we get a disaster funds?
:)

2856. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 01:11:11 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9695B967E9BAAspectrumhogstarbandn@207.106.92.175>
Source record: 73321
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

>
> What will it take to satisfy you folks? How about free airfare to
> Mississippi and a personal inspection of my station? For Pete's
> sake!!!!!
>

Yah know, Charlie, in retrospect, the only thing that bothers me about your installation is the one guy point as shown in 100_5463.jpg . It just looks a bit unsubstantial in the picture. I would grant that maybe in person, it might seem better.... however, thanks for the offer for free airfare, but I prefer the temps here on the Oregon coast.

Ed K7AAT

2857. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 02:19:49 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1121566789.814410.79580@o13g2000cwo.googlegroups.com>
Source record: 73322

Elden Fenison wrote:
> * Reg Edwards [07/16/2005 05:04 UTC]:
> > Go vertical or steeply sloping. Better all-round multi-band
> > performance than lower horizontal long wire, specially DX at the lower
> > frequencies.
>
> Thanks for the suggestion. I've spent much of the evening reading the
> ARRL "Stealth Amateur Radio" book. Interesting stuff. It appears that in
> addition to the wire up in the tree, I'll also need some sort of RF
> ground. Maybe shooting a very thin wire over the top of my building
> would do the trick.
>
> Another thing I'm considering rather than a wire in the tree, is a
> Hustler 6-BTV on a short mast.
> I'm not clear as to which would be likely
> to perform better.

The wire should outperform the 6BTV by a large margin IF you have an
even half-decent counterpoise/grounding system in place like a
wire-over-the-roof plus Reg's plumbing system connections. You'd also
get much more bandwidth with a wire vs. the 6BTV. A random wire can be
used on 30M, a 6BTV cannot be used on 30M, etc.

> But one thing... with the Hustler I wouldn't have to
> spring for an AH-4 tuner.

You can put up a wire and buy a manual wire tuner like the $110 MFJ
941E plus the cost of the wire. I'll do the tuning manually and save
$150-200 additional cost for any autotuner every time.

> --
> -=Elden=-
> http://www.moondog.org

w3rv

2858. Re: Antenna Aperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 02:34:39 UTC
From: "Michael R. Davis" <mrdavis01@hotmail.com>
Message-ID: <UrjCe.1098$LC6.249@fe06.lga>
Source record: 73323

Frank wrote:

>
> Dipole aperture is the capture area which translates an incident field, in
> W/m^2, to the actual power received by the dipole. For example the aperture
> for a half wave dipole is 0.13(Lambda)^2, where Lambda is the wavelength in
> meters. A 40 m half wave dipole would therefore have an aperture of 52
> m^2. A horn aperture, and also a parabolic dish, aperture is the physical
> area of the mouth of the horn.
>
> Regards.
>
> Frank

Well, I sure read _that_ wrong! Thanks for clearing that up.

2859. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 02:45:41 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1121568341.887205.16520@o13g2000cwo.googlegroups.com>
Source record: 73324

Brian Kelly wrote:
> Elden Fenison wrote:
> > * Reg Edwards [07/16/2005 05:04 UTC]:
> > > Go vertical or steeply sloping. Better all-round multi-band
> > > performance than lower horizontal long wire, specially DX at the lower
> > > frequencies.
> >
> > Thanks for the suggestion. I've spent much of the evening reading the
> > ARRL "Stealth Amateur Radio" book. Interesting stuff. It appears that in
> > addition to the wire up in the tree, I'll also need some sort of RF
> > ground. Maybe shooting a very thin wire over the top of my building
> > would do the trick.
> >
> > Another thing I'm considering rather than a wire in the tree, is a
> > Hustler 6-BTV on a short mast.
> > I'm not clear as to which would be likely
> > to perform better.
>
> The wire should outperform the 6BTV by a large margin IF you have an
> even half-decent counterpoise/grounding system in place like a
> wire-over-the-roof plus Reg's plumbing system connections. You'd also
> get much more bandwidth with a wire vs. the 6BTV. A random wire can be
> used on 30M, a 6BTV cannot be used on 30M, etc.

Oops, my bad, you can use a 6BTV on 30M. But you can't use it on 17M or
12M. A wire can be tuned to operate anywhere in the HF spectrum and
beyond on both ends.

> > But one thing... with the Hustler I wouldn't have to
> > spring for an AH-4 tuner.
>
> You can put up a wire and buy a manual wire tuner like the $110 MFJ
> 941E plus the cost of the wire. I'll do the tuning manually and save
> $150-200 additional cost for any autotuner every time.
>
> > --
> > -=Elden=-
> > http://www.moondog.org

w3rv

2860. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 03:00:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42d9cae6$1_2@spool9-west.superfeed.net>
Source record: 73225

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>There is zero net refraction, given by definition. So all your
>>refraction math was irrelevant and negated nothing.
>
> The math remains inviolate, exhibits the laws of conservation, and
> negate your premise. So far you have added nothing to offset this.

Most of the reflection examples in _Optics_, by Hecht, assume
zero net refraction and I will continue to follow Hecht's lead.
(Complicating examples beyond what is needed for understanding
the principles involved is a form of obfuscation.)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2861. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 03:55:32 UTC
From: Larry <mcmlviii@comcast.net>
Message-ID: <3ju35sFri1r8U3@individual.net>
Source record: 73226
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Charlie wrote:
> Hi Larry,
> I intentionally posted the very same identical mage twice since there was
> no damage and no change in the image even had I taken one after the storm
> cleared. There was no damage here at all to the station in any way.

Good to hear, Charlie, and thanks for the clarification.

> I NEVER realized my photographic prowess would cause such a stir which
> included accusations of "misrepresentation" "spoofing" "nice try" and
> comments about my "shit tower" "crappy installation" etc.

I remind myself that we are amateurs, after all. As such, we might do
things differently from professionals or self-proclaimed professionals.

I also remind myself that this is Usenet, and it attracts all sorts of
opinions and posting styles. Not all of them are worth reading or replying.

73
N1POP

2862. Re: Gap antennas, elevated radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 04:10:50 UTC
From: "Bob McGwier (N4HY)" <xxrwmcgwiexxxr@xxxxxcomcast.xxxxxnet>
Message-ID: <38OdnfOJd5vXR0TfRVn-vA@comcast.com>
Source record: 73227

Ed:

It is guyed with a three ropes and has weathered a harsh winter and
many storms. It has 64 radials.

Bob

Old Ed wrote:
> "Bob McGwier (N4HY)" <xxrwmcgwiexxxr@xxxxxcomcast.xxxxxnet> wrote in message
> news:oLOdnWKS1qnNMkrfRVn-3Q@comcast.com...
>
>>Mike Speed wrote:
>>
>>>What do you guys think of the Gap Antennas - they have the Titan, etc.
>>>
>>>How many of you have had experience with
>>>elevated radials? Four elevated radials at the correct length and
>>>height are supposed perform as well as many ground mounted radials.
>>>
>>
>>Mine is sitting on a pile in the back of my yard, and replaced by
>>a Steppir BigIR. On 40, and 80 the Titan is nearly worthless. On
>>the other bands, it is marginally useful. Compared to a BigIR,
>>fogettaboutit (I live in Jersey now). The BigIR acts as a 3/4
>>wave on 15 through 6 meters.
>>
>>Bob
>>N4HY
>
>
> Hi Bob,
>
> Would it be a good guess that your BigIR system includes a substantial
> in-ground radial system? And do you have it guyed?
>
> 73, Ed, W6LOL
>
>
>

2863. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 05:15:51 UTC
From: richardharrison@webtv.net
Message-ID: <6294-42D9E987-132@storefull-3255.bay.webtv.net>
Source record: 73228

Richard Clark, KB7GHQ wrote:
"No one expects a binary engineer can (answer that)."

I have a different take on reflection of the reflected wave at the generator. I think current results from potential difference. When there is no difference, there is no current.

Suppose you have an ideal transformer with a perfectly centertapped secondary. Volts are the same on both sides of the centettap but 180-degrees out of phase with respect to the centertap. Connect the extremes together and a high current results from the short circuit.

Suppose you modify the secondary by untwisting the sentertap and this results in two identical secondary coils. Connect these in the same phase in parallel. No current flows between the coils because no potential difference ever exists between the coils.

An ideal transmission line with a complete reflection at its far end is much like the transformer with two identical secondaries. The incident and reflected voltages are equal and at some points can completely add or subtract.

Back at the generator connected to a line with a complete reflection at the load end, there are line lengths which produces a reflection arriving back at the generator 180-degrees out of phase with the generator voltage. This produces the equivalent of a short circuit on the generator.

If line length results in reflected volts exactly in-phase with generated volts, no current flows into the line once steady-state conditions are established. This is what happens in the short-circuited 1/4-wave stub (metal insulator). It is the standoff between identical voltages which produces the extremely high impedance at the input to the stub.

I have not tried my Bird wattmeter on this. Maybe Cecil has and will say I am wrong.

Best regards, Richard Harrison, KB5WZI

2864. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 06:39:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbcufg$8sh$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73230

"DAVID BROWNE" <david.browne5@btinternet.com> wrote in message
news:wp9Ce.791$vv6.365@newsfe6-gui.ntli.net...
> what is best for 10-40m windom or g5rv half size
>
> thanks dave browne 2e0 dmb

==========
Neither of them is anywhere near as good as a random length dipole fed
over a 450 or 600 ohm transmission line, with a tuner.

A so-called half-size G5RV is a laughing stock.

Reg, G4FGQ

2865. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 06:40:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dirjd1d9g7vr4qdov3t117irmnk6b2i3er@4ax.com>
Source record: 73229

On Sat, 16 Jul 2005 22:00:47 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Most of the reflection examples in _Optics_, by Hecht

Dear Readers, it isn't midnight and there is no chance that our scribbler has actually had the experience to express any solution bearing on power but his own cooked theory. After-all if we can see the reflections from these anti-reflective layers, and that is sufficient proof to invalidate this folderol; well, experience must be a lie compared to tarted up references (which is so much sacred hamburger).

So, for the sake of those following this (and sufficiently wise enough not to jump into this sewer without a snorkel), I posed a simple question as to the amount of power in the 555nM band (within a 30nM BW) given a known power of 64microWatts illuminating a square cM target. I further asked that this be expressed in Lux.

Well, this problem is no more difficult than being able to simply take the one power already known, the characteristic of a tungsten lamp and transforming it into the other wavelength. This is a commonplace of optical engineering unknown to the binary engineer who finds the sum total of his entire instruction in two pages xeroxed from a library book.

I will skip the expression in Lux simply because that would be showing off, and cut to the chase of power expressed in conventional terms (the binary engineer will be wholly lost in the arcana of practical measures of light and couldn't be trusted to answer if any power were actually visible - commonplace experience is a mystery) = 220 nW.

This answer reveals there is more to the characteristic of the tungsten lamp, than meets the eye. 220 nW is actually quite bright, and yet we are being handed sloppy work that is acknowledged to dismiss nearly a thousand times as much power as a trivial difference that doesn't invalidate a claim of "total" cancellation. I wouldn't trust such a personality as a bank teller, nor a goldsmith, nor a surgeon, bridge builder, ... in short, no one serious about the subject. This kind of slop is what CFA and EH antennas are built from.

So, this practiced optical engineer has delivered what the binary engineer could not. Nothing amazing about that - experience clearly differentiates knowledge from wishing. I could continue with turning this into Lux/Lumens/Foot-Candles/Candelas (terms of confusion to our

scribbler), shifting the wavelength again, expressing the total power radiated, expressing the total light seen (or power in the BW selected light), and so on that are complete mysteries that utterly wipe out these facades breathlessly offered as compelling proofs.

The single most embarrassing question I've offered to this correlation of "glare-proof" optics was to ask the obvious:
What wavelength is Glare?

Even here there is a practical answer that stumps the binary mentality limited by the lack of experience, and the dearth of exposition from two pages of thumb worn xeroxes.

So, we have these "Can you solve this?" howlers where the author is so utterly unversed on the topic that he cannot describe power; fails to acknowledge if that glare's reflection could be seen at the typical values found in perfect math solutions; what wavelength we are talking about; why the problem is posed out to 5 places of precision and with only 1 place of accuracy results; why a light level of 1/1000th of the typical perfect math solution is still visible but is dismissed as a correct result.

It has been amusing nonetheless.

73's
Richard Clark, KB7QHC

2866. Re: Quad/ beam for portables activities ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 06:49:48 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dbcv9ckfd1@ctb-nnrp2.saix.net>
Source record: 73231

"Thierry" <-> wrote in message news:42d955cc$1@news.vo.lu...
> Hi,
>
> I need your advice. Here are my needs :
> I'd like to DXing on portable at 100W SSB. I am looking for a directive
> antenna displaying an interesting gain and F/B. Another factor to consider
> is the price but I am not ready to build the antenna myself. The rotation
> of
> the mast/antenna will be insured manually.
> I have thus to use the lightest 2-ele quad or a 3-ele beam.
>
> My weight being close to 65 kg the weight of this antenna should be of 20
> kg
> max (at first sight. I don't exactly know what weight I canb lift up, but
> probably not much)
> If this is a quad I think that I can still place it 3-5m high max (the
> lower
> string being 1 to 2m over ground), for sure much higher for the beam.
> The overall length of the antenna cannot exceed 4-5m and the possible boom
> must be telescopic or easy to assemble as all parts could enter in a
> medium
> size car (so elements to assemble must be 2.5m long max or so)
>
> So I am looking for a dealer manufacturering light elements or collapsible
> antennas or easy to setup (in less than 30 min-1h)
> At last I prefer a full length quad or, if that exists, a quad using traps
> (but I've never seen that) but the beam could use traps and the ends.
> This antenna must be tuned on 20m or maybe a tri-bander 20-15-10 or
> 20-17-15m
>
> Is this a dream or not ? If not, do you know some manufacturers providing
> such antennas ?
>
> Excepted Hexa-Beam Light models, I don't really know other dealers (and
> BBQ
> is a shortened quad and quite heavy and Titanex sells only large beams and
> verticals).
> Do you have some good experience in the field in erecting such /P beams ?.
> If you do, what model do (did) you use ?
>
> Thanks for your comments
>
> Thierry
> ON4SKY

> http://www.astrosurf.org/lombry/menu-qsl.htm
>
>

Spiderbeam - 3 or 5 bands - 20 to 10m
www.spiderbeam.net

Easy to build, cheap, good performance, very light weight and packs up
compact.

73
Roger ZR3RC

2867. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 08:02:14 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42da10e1$3_1@x-privat.org>
Source record: 73232
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Another one is "The Great Parasite Of Windsor"

"ZZZZPK "
<zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net>
wrote in message news:42d99398.104519552@news.iol.ie...
> Richard Clark <kb7qhc@comcast.net> wrote:
>
> : The British Empire must, as one would expect, have an Emperor, and
> : particularly a British Emperor. If we scan the list of Royals over
> : time, certainly Britain had an Emperor (Carausius) during the Roman
>
>
> i think (80% sure-ish) you'll find that
> ONE of the lesser known titles of
> HRH QE II is EMPEROR
>

2868. Re: Antenna Aperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 09:01:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11dk7if37pp9q92@corp.supernews.com>
Source record: 73233

It's not advanced at all. If both antennas are equally efficient, the ratio of their apertures (in square wavelengths) is exactly equal to the gain of one relative to the other.

Roy Lewallen, W7EL

Michael R. Davis wrote:
> I'm reading an article about antenna aperature. Is it correct to state
> that dipoles have a very large aperature and something like a horn
> assembly used in microwaves has a tiny aperature except for wavelength
> for which the horn is designed?
>
> Just trying to get a handle on this advanced theory.

2869. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 10:21:45 UTC
From: zzzpk_pkearn_class_a@its-as-easy-as-they-say-multi_band_cb_is_here.eircom.es.it.net
Message-ID: <42da3125.144859269@news.iol.ie>
Source record: 73234
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Gerard Lynch" <gerrylynch@freenetname.co.uk> wrote:

: Not since 1947.

i wasnt referring to ''over here''

2870. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 10:40:04 UTC
From: Elden Fenison <usenet@moondog.org>
Message-ID: <slrnddkb7i.2m9.usenet@macmini.moondog.org>
Source record: 73235

```
* Brian Kelly [07/17/2005 02:19 UTC]:
> The wire should outperform the 6BTV by a large margin IF you have an
> even half-decent counterpoise/grounding system in place like a
> wire-over-the-roof plus Reg's plumbing system connections. You'd also
> get much more bandwidth with a wire vs. the 6BTV. A random wire can
> be used on 30M, a 6BTV cannot be used on 30M, etc.

Excellent info, thanks!

> You can put up a wire and buy a manual wire tuner like the $110 MFJ
> 941E plus the cost of the wire. I'll do the tuning manually and save
> $150-200 additional cost for any autotuner every time.

Yeah, $140 difference. Question about that though... wouldn't the AH-4
be a better choice for another reason? That reason being that the AH-4
is designed to connect to the wire directly at the feed point, whereas
the MFJ is apparently designed for in-shack use.

--
-=Elden=-
http://www.moondog.org
```

2871. lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 12:07:15 UTC
From: Jerseyj <jerseyj69@comcast.net>
Message-ID: <jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com>
Source record: 73236

Hi all,
For years I lived in an apartment and just had antenna's in the attic , but now having moved to a house in a few months I'll be putting up a 10-160 wire type antenna in my trees. Given the recent spate of serious thunderstorms, and the accompanying lightning, I'm a bit concerned about properly grouding the antenna so that I don't fry the house *smile*. I know about some articles on the ARRL site, but was wondering if anyone else had some ideas or pointers on how to practically do this ?

Jerry

2872. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 12:38:06 UTC
From: Clarke <guy_wire_man_not_highwire@aol.com>
Message-ID: <42DA512D.2C2B85F@aol.com>
Source record: 73237
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Good photo,

I don't like the angle between the other two guy cables,
almost 150 deg. or more !

Danger, Will Robinson, Danger !

Charlie wrote:

> Hi Cecil,
> Here is the link (again) to the "bona fide" - A F T E R - photo just today.
>
> But ..I can hear it already.."You already repaired the damage!"
>
> 1. http://deepsouthnet.net/images/100_5512.jpg
>
> --
>
> Charlie
> Deep South 2 Meter SSB Net
> www.deepsouthnet.net
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42d988a1$1_1@spool9-west.superfeed.net...
> > Charlie wrote:
> >> What will it take to satisfy you folks?
> >>
> > Probably a bona fide after photo.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
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2873. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 12:42:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42da5325$1_2@spool9-west.superfeed.net>
Source record: 73238

Richard Harrison wrote:
> I have not tried my Bird wattmeter on this. Maybe Cecil has and will say
> I am wrong.

No, I agree with your analysis, Richard, as far as it goes
but an expanded look will reveal some interesting facts.

Concerning open-circuited or short-circuited transmission
lines, if the voltages add up to zero, that looks like a short,
and current is at a maximum. If the currents add up to zero,
that looks like an open and the voltage is at a maximum. If
these conditions occur at the source, 100% re-reflection of
the incident reflected wave energy is guaranteed. The Bird
reads equal forward and reflected power all up and down the
feedline.

If an open-circuited 1/2WL of 50 ohm lossless feedline is
connected to a simple class-A source having a series source
impedance of 50 ohms and a voltage source of 141.4v (as in
W7EL's "Food For Thought #1) the steady-state impedance seen
by the source is an open-circuit so the source voltage is
141.4v and the source current is 0 amps. The implication is
that it is like having nothing connected at all but that's
not correct. Measuring the current at the mid-point of that
1/2WL of feedline will prove the feedline is filled with
EM wave energy which must travel at the speed of light.

The Bird will read 100w forward and 100 reflected on the
feedline. An RF current meter at the center of that 1/2WL
of feedline will read 2.828 amps. That's the sum of the
forward current and reflected current in phase, 1.414 amps
in the forward direction and 1.414 amps in the rearward
direction. 1.414^2*50 = 100w for both forward and reflected
powers. The Bird is right. Those powers are really there
supporting the forward and reflected waves and cannot be
used for any other purpose. Since the feedline is lossless,
there's no lost energy to replace so the source power output
is zero. Anything else would violate the conservation of
energy principle. Note that at the above current maximum
point, the net flow of energy is zero since the Poynting
vectors for forward and reflected power add up to zero.
--
73, Cecil http://www.qsl.net/w5dxp

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2874. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 12:47:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42da5478$1_2@spool9-west.superfeed.net>
Source record: 73239

Reg Edwards wrote:
> A so-called half-size G5RV is a laughing stock.

The half-size G5RV is 1.5WL on 10m and the matching
feedline section is 0.5WL on 10m, a pretty good 10m
antenna with multiple radiation lobes.

It is 0.75WL on 20m fed with a 0.25WL matching
section. The Smith Chart says that's not a bad match.

It is 0.375WL on 40m fed with a 0.125WL matching
section. The Smith Chart says that's not a bad match.
--
73, Cecil http://www.qsl.net/w5dxp

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2875. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 12:55:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42da564b$1_1@spool9-west.superfeed.net>
Source record: 73240

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
> > Most of the reflection examples in _Optics_, by Hecht, assume
>> zero net refraction and I will continue to follow Hecht's lead.

> After-all if we can see
> the reflections from these anti-reflective layers, and that is
> sufficient proof to invalidate this folderol;

Following exactly the same reasoning, if we can measure loss in
all transmission lines, the concept of a lossless transmission
line is also folderol. The example I gave was designed for
clarity of understanding. If you choose to obfuscate clarity,
don't expect me to join you.
--
73, Cecil http://www.qsl.net/w5dxp

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2876. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 13:09:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbdlar$7mb$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73241

The ancient Smith chart may tell somebody about something.

But I'm still laughing about the ridiculous half-size G5RV. And so,
in his grave, is Mr Varney.

Anything will work after a fashion at one frequency. It's so easy to
find one. But by which time the DX has faded away.

Reg, G4FGQ

2877. Re: Antenna Aperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 13:24:16 UTC
From: JS <wd1v@comcast.net>
Message-ID: <170720050924168804%wd1v@comcast.net>
Source record: 73242

> Michael R. Davis wrote:
> > I'm reading an article about antenna aperature. Is it correct to state
> > that dipoles have a very large aperature and something like a horn
> > assembly used in microwaves has a tiny aperature except for wavelength
> > for which the horn is designed?
> >
> > Just trying to get a handle on this advanced theory.

Hi Mike:

You didn't state what you were reading specifically but this free
on-line book seems to be well researched and read.

http://www.qsl.net/n1bwt/contents.htm

73,

John - WD1V
FN-42

2878. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 15:09:19 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <zwuCe.2043$Oe4.1166@newsfe3-gui.ntli.net>
Source record: 73243

"Jerseyj" <jerseyj69@comcast.net> wrote in message
news:jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com...
> Hi all,
> For years I lived in an apartment and just had antenna's in the
attic ,
> but now having moved to a house in a few months I'll be putting up a
> 10-160 wire type antenna in my trees. Given the recent spate of
serious
> thunderstorms, and the accompanying lightning, I'm a bit concerned
about
> properly grouding the antenna so that I don't fry the house *smile*.
I
> know about some articles on the ARRL site, but was wondering if
anyone
> else had some ideas or pointers on how to practically do this ?
>
> Jerry

Have a look at www.furse.com

They used to do a very good pamphlet about lightning and protection.

--
Woody

harrogate2 at ntlworld dot com

2879. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 16:33:37 UTC
From: dplatt@radagast.org
Message-ID: <11dl2314ioj8g80@corp.supernews.com>
Source record: 73244

In article <jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com>,
Jerseyj <jerseyj69@comcast.net> wrote:

>For years I lived in an apartment and just had antenna's in the attic ,
>but now having moved to a house in a few months I'll be putting up a
>10-160 wire type antenna in my trees. Given the recent spate of serious
>thunderstorms, and the accompanying lightning, I'm a bit concerned about
>properly grouding the antenna so that I don't fry the house *smile*.

That's a very good concern to have!

I'd encourage you to consult with a local professional (electrician)
who is familar with your local conditions (weather, soil, electrical,
and legal).

> I
>know about some articles on the ARRL site, but was wondering if anyone
>else had some ideas or pointers on how to practically do this ?

You might find it useful to review the following document:

http://www.radagast.org/~dplatt/hamradio/mil-hdbk-419a-grounding.pdf

It's probably got more information than you want or need, but some
sections of it could be quite useful in planning your system.

Understanding the requirements of your local electrical code (which is
probably based in large part on the National Electric Code) would also
be a good idea. The text of the NEC isn't available online as far as
I know (it's copyrighted) but I understand that most good libraries
should have a copy.

The basic approach you'd want to take, I believe, is to make sure that
the feedline is well grounded immediately before it enters your
building. You'll probably want to hammer in a new ground rod at this
location, in order to keep the distance between grounding point and
ground to a minimum, and if you do so you should/must install a
heavy-gauge "bonding" wire between this ground rod and your building's
main grounding point (probably at the electrical service entrance).

Installing lightning/surge suppressors of one sort or another in the
feedline at the grounding point would also be a good idea. They might
help shunt away a high-voltage spike, induced by a nearby lighting
strike, which could damage your equipment.

If your shack is not on the first floor, it'd probably be a good idea
for you to run the feedline down the wall to ground level, ground it
there, and then run it to the antenna.

You might want to consider an arrangement in which the antenna feedline drops down from the feedpoint to ground level, is connected to a ground rod at that point, and then runs along or through the ground to your house (use a "direct bury" coax, in this case, to avoid contamination of the cable by soil moisture and chemicals!). This could help keep direct- or near-direct-strike current away from your house.

One of the best things you can do is to have some sort of easy-access connector coupling, located outside the house (e.g. at the grounding block). If a storm seems imminent, or any time you won't be using the rig for a while, disconnect the end of the antenna feedline and toss it away from the house.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

2880. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 16:36:52 UTC
From: Big Ugly <xxx@xxx.com>
Message-ID: <xxx-A7C7A6.11365317072005@news-rdr-03.rdc-kc.rr.com>
Source record: 73245
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

In article <11dj3p9kmo00id6@news.supernews.com>,
"Charlie" <chas@aol.com> wrote:

> Hi Cecil,
> Here is the link (again) to the "bona fide" - A F T E R - photo just today.
>
> But ..I can hear it already.."You already repaired the damage!"
>
> 1. http://deepsouthnet.net/images/100_5512.jpg

looks touched up

2881. Resistor Frequency Response

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 17:01:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbe2tscja1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73246

FREQUENCY RESPONSE OF RESISTORS.

Program METALFLM.exe 41 Kbytes.

This program models small low-wattage wire-ended resistors including spiralled metal-film resistors. The model's equivalent circuit is a chain of T and L networks. Values of lumped inductance and stray capacitance are estimated by the program from the component's physical dimensions.

The component with it's terminating leads is treated as a lumped L and C non-uniform transmission line. The program computes input impedance from 10 KHz up to 5 GHz with the other end grounded. Fast and slow frequency sweeps are available to observe maxima and minima of Zin.

Max and min Zin are approximately related to the physical length of the component, including connecting leads, but occur at frequencies far higher than the usual and useful working frequency range.

The reflection cefficient and standing-wave-ratio are calculated with reference to Zo, Zo being the DC value of the resistor. The usefulness of the component as a dummy load or for other purposes at any frequency can then be ascertained.

The effectiveness versus frequency of solid carbon-rod resistors and multi-turn UHF chokes, which are of similar wire-end construction, can also be determined. Chokes can be wound over the bodies of high-value wire-ended resistors, the parallel resistance value perhaps having some desirable effect on the ultimate response.

Another use for resistors having a good high frequency response, or at least a known frequency response, is for ratio arms and switched resistors in impedance bridges and other measuring instruments.

Download METALFLM in a few seconds and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2882. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 18:07:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4g5ld19psd1lh96m520bcnhp2rnkd8bqkg@4ax.com>
Source record: 73247

On Sun, 17 Jul 2005 07:55:32 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>The example I gave was designed for clarity of understanding.
It is a poor example of understanding when you purposely inject error.
There is nothing clear about intentional mistakes. Any rejection of a
complete solution is a suspect agenda from the beginning.

Understanding does not come of clouded data and murky results. What
has been offered is evidence of poor knowledge, and no experience.
That poor foundation built on sand has translated into outrageous
conclusions that are nothing more than castles in the sky.

I can demonstrate this in that when posed with a REAL power
application, silence typically falls for the simplest of computations.
Like how much power does a light bulb radiate to illuminate in the
660nM region a target of 1 cm square, at 1 M with 64 microWatts/30 nM
of bandwidth?

The inability to do such trivial power models reveals every thing else
offered has the makings of superstition that builds CFAs and their
ilk.

Dear Readers,

Knowing the binary result beforehand (0) to this simple appeal, I will
render that answer before the day is out. It will exhibit how little
optical knowledge is contained in this "Can you solve this" banality.

You may all note that my embarrassing question:
What is the wavelength of Glare?
remains without comment or response, even though there is a practical
answer and a perfectly reasonable explanation. The gulf of silence
that attends this remarks how complete the void of experience is. Can
you imagine basing an entire exposition around such a commonplace
problem and not knowing the basics? In short, this "Can you solve
this?" is more an appeal for knowledge than a demonstration of skill.
For one, you need to know WHO needs this glare cancellation capacity,
and then you would ask WHY; and it then follows that the wavelength
falls within these particular aspects. Fairly simple stuff for the
optical engineer, but wholly outside of the binary engineer's
experience and education.

The greater embarrassment is that apparently it is outside of the
skill of performing a simple Google search to fill that gap of
knowledge. As I offered, once that knowledge came to mind, the WHY
and WHO would explain the WHEREFORE instead of this rummaging through

text to xerox formulas to force-fit a presumed theory of "total"
cancellation.

It is still entertaining tho', as a burlesque of engineering. ;-)

73's
Richard Clark, KB7QHC

2883. Re: Resistor Frequency Response

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 18:22:31 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <HIxCe.6288$BK1.2693@newsread3.news.pas.earthlink.net>
Source record: 73248

Hi Reg,

Thanks for making more of your handiwork available to the group!

Any idea how the model predictions track with real-world measure-
ments on various kinds of resistors?

Many years back in our GTE (now Verizon) RF development lab,
we found that we could make much better impromptu RF terminations
using big 2W carbon resistors than with the smaller sizes. It seems
the internal carbon rod was closer to the surrounding BNC connector,
thus producing less of an impedance bump. These impromptu loads
worked fine to beyond 500 MHz if the "outside" lead was just bent
over and soldered to the connector shell. But if a metal disk was used
between the lead and shell, the upper end was extended to 1+ GHz.
(Shouldn't try to push a BNC beyond that anyway!)

Ed

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dbe2tscja1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> FREQUENCY RESPONSE OF RESISTORS.
>
> Program METALFLM.exe 41 Kbytes.
>
> This program models small low-wattage wire-ended resistors including
> spiralled metal-film resistors. The model's equivalent circuit is a
> chain of T and L networks. Values of lumped inductance and stray
> capacitance are estimated by the program from the component's physical
> dimensions.
>
> The component with it's terminating leads is treated as a lumped L and
> C non-uniform transmission line. The program computes input impedance
> from 10 KHz up to 5 GHz with the other end grounded. Fast and slow
> frequency sweeps are available to observe maxima and minima of Zin.
>
> Max and min Zin are approximately related to the physical length of
> the component, including connecting leads, but occur at frequencies
> far higher than the usual and useful working frequency range.
>
> The reflection cefficient and standing-wave-ratio are calculated with
> reference to Zo, Zo being the DC value of the resistor. The usefulness
> of the component as a dummy load or for other purposes at any
> frequency can then be ascertained.
>
> The effectiveness versus frequency of solid carbon-rod resistors and

> multi-turn UHF chokes, which are of similar wire-end construction, can
> also be determined. Chokes can be wound over the bodies of high-value
> wire-ended resistors, the parallel resistance value perhaps having
> some desirable effect on the ultimate response.
>
> Another use for resistors having a good high frequency response, or at
> least a known frequency response, is for ratio arms and switched
> resistors in impedance bridges and other measuring instruments.
>
> Download METALFLM in a few seconds and run immediately.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

2884. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 18:22:32 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <IlxCe.6289$BK1.4485@newsread3.news.pas.earthlink.net>
Source record: 73250

Hi Jerry,

Dave's comments are accurate and helpful, in almost every case.
But there is the possibility of a very substantial simplification here.

The Key Question: Do you need or want to operate your rig during
electrical storms?

If the answer is YES, then you better do everything Dave suggests--
and possibly a whole lot more. Praying a little might also be helpful.

But if the answer is NO, then you would probably do just fine
(with respect to antenna-specific risk) using the last suggestion only:

> One of the best things you can do is to have some sort of easy-access
> connector coupling, located outside the house (e.g. at the grounding
> block). If a storm seems imminent, or any time you won't be using the
> rig for a while, disconnect the end of the antenna feedline and toss
> it away from the house.

The main thing to remember on this one is that the more CONVENIENT
you make your disconnect, the more likely it will be that you'll actually
USE it appropriately.

73, Ed, W6LOL

2885. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 18:22:33 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <JlxCe.6290$BK1.3216@newsread3.news.pas.earthlink.net>
Source record: 73249

Uhhhh, Reg...

Don't look now, but:

1. The equations underlying the Smith Chart don't become more
valid when they are programmed into a computer.

2. Antennas scale with frequency, as you are undoubtedly aware.
So a half-size antenna used at twice the frequency is neither
more nor less "ridiculous" than the "full-sized" version.

3. The "not bad" matches Cecil was talking about were/are
achieved WITHOUT the use of an outboard antenna tuner.
So our hypothetical G5RV/2 DX chaser just might bag the
quarry while you are still getting your tuner on frequency.

Ed

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dbdlar$7mb$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> The ancient Smith chart may tell somebody about something.
>
> But I'm still laughing about the ridiculous half-size G5RV. And so,
> in his grave, is Mr Varney.
>
> Anything will work after a fashion at one frequency. It's so easy to
> find one. But by which time the DX has faded away.
> ----
> Reg, G4FGQ
>
>

2886. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 18:41:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <0ExCe.35$An2.2190373@news.sisna.com>
Source record: 73251

For a receiving antenna, a coherer provides excellent lightning
protection.

Unfortuantly, on a transmitting antenna, the rf would immediately make
the coherer conductive and a direct short to ground (perhaps very low
QRP power could be used?)

One can easily be construted with a bottle filled with metal filings,
two bare wires are inserted into the filings (not touching and
seperated by a substantial amount of the filings), one wire goes to a
good earth ground, the other to the antenna.

If the coherer shorts to ground it only needs to be shaken to reset (I
would suspect in a real lightning strike the metal would be fused,
quite possibly even vaporized.)

John

"Jerseyj" <jerseyj69@comcast.net> wrote in message
news:jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com...
> Hi all,
> For years I lived in an apartment and just had antenna's in the
> attic ,
> but now having moved to a house in a few months I'll be putting up a
> 10-160 wire type antenna in my trees. Given the recent spate of
> serious
> thunderstorms, and the accompanying lightning, I'm a bit concerned
> about
> properly grouding the antenna so that I don't fry the house *smile*.
> I
> know about some articles on the ARRL site, but was wondering if
> anyone
> else had some ideas or pointers on how to practically do this ?
>
> Jerry

2887. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 19:08:42 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <pqald1pam4gtvhr8vhpdja4jm75tb1khj1@4ax.com>
Source record: 73252

On Sun, 17 Jul 2005 08:07:15 -0400, Jerseyj <jerseyj69@comcast.net>
wrote:

>Hi all,
>For years I lived in an apartment and just had antenna's in the attic ,
>but now having moved to a house in a few months I'll be putting up a
>10-160 wire type antenna in my trees.

I have a 10-80 wire connected between 3 trees. It's fed with
ladderline. Lightning protection is simple -- with banana plugs and
jacks, I can unplug the ladderline just outside the window whenever it
looks rainy.

You might think about whether you want to use coax or some kind of
balanced line -- balanced line is a simple disconnect.

bob
k5qwg

>Given the recent spate of serious
>thunderstorms, and the accompanying lightning, I'm a bit concerned about
>properly grouding the antenna so that I don't fry the house *smile*. I
>know about some articles on the ARRL site, but was wondering if anyone
>else had some ideas or pointers on how to practically do this ?
>
>Jerry

2888. Fantastic Military kW auto coupler for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 19:18:18 UTC
From: Colin Gunn <cgunn@telus.net>
Message-ID: <_9yCe.157795$on1.152688@clgrps13>
Source record: 73253
Cross-posted to: alt.ham-radio,alt.ham-radio.hf,alt.ham-radio.marketplace,alt.ham-radio.ssb,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.swap

Fantastic Military kW auto coupler for sale. Mackay MSR4030 type. Check out ebay at

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5788422677&category=48711&ssPageName=WDVW&rd=1

VE7TNT

2889. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 19:58:04 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <NMKdnaWoH69QJUffRVn-vA@comcast.com>
Source record: 73254

Sine the G5RV is designed for 20 meters, and is a compromise on the
other bands: I conclude that the 1/2 scale G5RV is a 10 meter antenna;
and is a compromise on the other bands!

Old Ed wrote:
> Uhhhh, Reg...
>
> Don't look now, but:
>
> 1. The equations underlying the Smith Chart don't become more
> valid when they are programmed into a computer.
>
> 2. Antennas scale with frequency, as you are undoubtedly aware.
> So a half-size antenna used at twice the frequency is neither
> more nor less "ridiculous" than the "full-sized" version.
>
> 3. The "not bad" matches Cecil was talking about were/are
> achieved WITHOUT the use of an outboard antenna tuner.
> So our hypothetical G5RV/2 DX chaser just might bag the
> quarry while you are still getting your tuner on frequency.
>
> Ed
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:dbdlar$7mb$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
>>The ancient Smith chart may tell somebody about something.
>>
>>But I'm still laughing about the ridiculous half-size G5RV. And so,
>>in his grave, is Mr Varney.
>>
>>Anything will work after a fashion at one frequency. It's so easy to
>>find one. But by which time the DX has faded away.
>>----
>>Reg, G4FGQ
>>
>>
>
>
>

2890. Re: Quad/ beam for portables activities ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 20:19:22 UTC
From: Thierry <->
Message-ID: <42dabd4d$1@news.vo.lu>
Source record: 73255

Hi Roger,

Indeed, I know the spiderbeam since the very beginning but it is really too
huge I believe
I list all "portable" multibands solution in this excel file
http://www.astrosurf.org/lombry/qsl-portable3.htm

From what I have seen or read, most portable beam are working on 6m or
below.
Remain the quad that works fine closer to the ground than the beam.
Hard to find.

Thierry, ON4SKY

"Roger Conroy" <rogerconroy@nospam.hotmail.com> wrote in message
news:dbcv9ckfd1@ctb-nnrp2.saix.net...
>
> "Thierry" <-> wrote in message news:42d955cc$1@news.vo.lu...
> > Hi,
> >
> > I need your advice. Here are my needs :
> > I'd like to DXing on portable at 100W SSB. I am looking for a directive
> > antenna displaying an interesting gain and F/B. Another factor to
consider
> > is the price but I am not ready to build the antenna myself. The
rotation
> > of
> > the mast/antenna will be insured manually.
> > I have thus to use the lightest 2-ele quad or a 3-ele beam.
> >
> > My weight being close to 65 kg the weight of this antenna should be of
20
> > kg
> > max (at first sight. I don't exactly know what weight I canb lift up,
but
> > probably not much)
> > If this is a quad I think that I can still place it 3-5m high max (the
> > lower
> > string being 1 to 2m over ground), for sure much higher for the beam.
> > The overall length of the antenna cannot exceed 4-5m and the possible
boom
> > must be telescopic or easy to assemble as all parts could enter in a
> > medium
> > size car (so elements to assemble must be 2.5m long max or so)
> >

> > So I am looking for a dealer manufacturering light elements or
collapsible
> > antennas or easy to setup (in less than 30 min-1h)
> > At last I prefer a full length quad or, if that exists, a quad using
traps
> > (but I've never seen that) but the beam could use traps and the ends.
> > This antenna must be tuned on 20m or maybe a tri-bander 20-15-10 or
> > 20-17-15m
> >
> > Is this a dream or not ? If not, do you know some manufacturers
providing
> > such antennas ?
> >
> > Excepted Hexa-Beam Light models, I don't really know other dealers (and
> > BBQ
> > is a shortened quad and quite heavy and Titanex sells only large beams
and
> > verticals).
> > Do you have some good experience in the field in erecting such /P beams
?.
> > If you do, what model do (did) you use ?
> >
> > Thanks for your comments
> >
> > Thierry
> > ON4SKY
> > http://www.astrosurf.org/lombry/menu-qsl.htm
> >
> >
>
> Spiderbeam - 3 or 5 bands - 20 to 10m
> www.spiderbeam.net
>
> Easy to build, cheap, good performance, very light weight and packs up
> compact.
>
> 73
> Roger ZR3RC
>
>
>

2891. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 20:42:41 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <5pzCe.6340$BK1.1939@newsread3.news.pas.earthlink.net>
Source record: 73256

Hi there, Op...

Well, the devil is in the details, isn't it?

One "compromise" from a Mercedes is a Yugo.
That would be a pretty big come-down.

But another "compromise" from a Mercedes would be a BMW
(or vice-versa). That wouldn't be hard to take at all.

Presumably, the reference antennas against which the G5RV is
called a "compromise" are full-sized dipoles for the respective
bands. IF the G5RV can come reasonably close to those
(and many users seem to think it can), then there is a pretty
good basis for its enduring popularity.

73, Ed

"Ham op" <hamop@comcast.net> wrote in message
news:NMKdnaWoH69QJUffRVn-vA@comcast.com...
> Sine the G5RV is designed for 20 meters, and is a compromise on the
> other bands: I conclude that the 1/2 scale G5RV is a 10 meter antenna;
> and is a compromise on the other bands!
>

2892. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 20:58:56 UTC
From: Thierry <->
Message-ID: <42dac693$1@news.vo.lu>
Source record: 73257

"Jerseyj" <jerseyj69@comcast.net> wrote in message
news:jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com...
> Hi all,
> For years I lived in an apartment and just had antenna's in the attic ,
> but now having moved to a house in a few months I'll be putting up a
> 10-160 wire type antenna in my trees. Given the recent spate of serious
> thunderstorms, and the accompanying lightning, I'm a bit concerned about
> properly grouding the antenna so that I don't fry the house *smile*. I
> know about some articles on the ARRL site, but was wondering if anyone
> else had some ideas or pointers on how to practically do this ?

HI,

Good to read : http://www.astrosurf.org/lombry/qsl-lightning-protection.htm

Personnaly, in my humble opinion, under thundery weather there is no better
solution than unpluging all electronic devices...

Thierry, ON4SKY

>
> Jerry

2893. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 21:54:07 UTC
From: richardharrison@webtv.net
Message-ID: <3278-42DAD37F-108@storefull-3258.bay.webtv.net>
Source record: 73258

Jerry wrote:
"I know about some articles on the ARRL site, but was wondering if anyone else had some ideas or pointers on how to pratically do this?"

Coax helps protect your radio from lightning. It rejects common-mode currents inside which might otherwise damage the radio.

Thunderstorms often produce lightning from clouds charged to 100 million volts with respect to the earth. Current may oscilate up to 200 thousand amps in a lightning discharge. Temperature inside the stroke may reach 30 thousand degrees C (5x the temperature of the sun`s surface).

A stroke starts and stops abruptly, so it contains r-f in addition to d-c. The discharge may take up to 150 milliseconds and consist of several flashes in both directions. It may include a path miles long, so it has a pretty good ionization trail for an antenna.

If your antenna is struck by lightning, it is best to bypass the energy aroundb people and equipment.

Medium wave stations have arc-gaps around the tower base insulators, Faraday screens between primary and secondary of tower r-f coupling transformers, and tower lighting chokes which keep both r-f and lightning out of the power mains.

High frequency stations often use balanced wire lines, and these have an arc-gap from each wire to the earth at a point outside the station.

VHF, UHF, and microwave stations use grounded antennas and coax. Towers which support the antenna generally have each tower leg separately grounded by a heavy cable to its own ground rod near the tower base. R-F cables and waveguide are grounded at the antenna and at least at the base of the tower. Coax nay be coiled with several turns between the tower base and the shack to discourage lightning on the outside of the coax from entry to the shack. Waveguide is solidly bonded to the tower but not usually coiled to make a lightning choke.

The solid-state VHF, UHF, or microwave station often needs additional surge protection because of the difference in potential between electric service and antenna system grounds
This takes the form of husky r-f chokes in each power wire to the r-f equipment. Each choke is shunted at each end to ground with a capacitor and with a voltage limiting device or devices, often MOV`s. There are ready-made brute force coil and capacitor low-pass pi-filters which need only addition of MOV`s to make them effective lightning suppressors. I made mine in an earlier time using Miller Coil Company tower lighting chokes and they worked well. You could wind 2 or 3 dozen turns of #12 or

#14 insulated wire in an 8-in. dia. circle to make your own 0.1 millihenry chokes. The standard choke used to be 2.5 millihenry, but it is not critical.

The same wiring techniques required for noise reduction apply to the biggest noise of all, lightning.

Best regards, Richard Harrison, KB5WZI

2894. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 22:19:07 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1121638747.593172.302370@g44g2000cwa.googlegroups.com>
Source record: 73259

Elden Fenison wrote:
> * Brian Kelly [07/17/2005 02:19 UTC]:
> > The wire should outperform the 6BTV by a large margin IF you have an
> > even half-decent counterpoise/grounding system in place like a
> > wire-over-the-roof plus Reg's plumbing system connections. You'd also
> > get much more bandwidth with a wire vs. the 6BTV. A random wire can
> > be used on 30M, a 6BTV cannot be used on 30M, etc.
>
> Excellent info, thanks!
>
> > You can put up a wire and buy a manual wire tuner like the $110 MFJ
> > 941E plus the cost of the wire. I'll do the tuning manually and save
> > $150-200 additional cost for any autotuner every time.
>
> Yeah, $140 difference. Question about that though... wouldn't the AH-4
> be a better choice for another reason? That reason being that the AH-4
> is designed to connect to the wire directly at the feed point, whereas
> the MFJ is apparently designed for in-shack use.

Yes and no, it's a matter of several tradeoffs Elden. Right now I'm up
to ears in alligators so QRX and I'll get back to you late Monday with
some comments.

> -=Elden=-
> http://www.moondog.org

w3rv

2895. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 22:24:46 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <OUACe.10325$Ag3.1771@newsfe4-gui.ntli.net>
Source record: 73260

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3278-42DAD37F-108@storefull-3258.bay.webtv.net...
> Jerry wrote:
> "I know about some articles on the ARRL site, but was wondering if
> anyone else had some ideas or pointers on how to pratically do
this?"
>
> Coax helps protect your radio from lightning. It rejects common-mode
> currents inside which might otherwise damage the radio.
>
> Thunderstorms often produce lightning from clouds charged to 100
million
> volts with respect to the earth. Current may oscilate up to 200
thousand
> amps in a lightning discharge. Temperature inside the stroke may
reach
> 30 thousand degrees C (5x the temperature of the sun`s surface).
>
> A stroke starts and stops abruptly, so it contains r-f in addition
to
> d-c. The discharge may take up to 150 milliseconds and consist of
> several flashes in both directions. It may include a path
> miles long, so it has a pretty good ionization trail for an
antenna.
>
> If your antenna is struck by lightning, it is best to bypass the
energy
> aroundb people and equipment.
>
> Medium wave stations have arc-gaps around the tower base insulators,
> Faraday screens between primary and secondary of tower r-f coupling
> transformers, and tower lighting chokes which keep both r-f and
> lightning out of the power mains.
>
> High frequency stations often use balanced wire lines, and these
have an
> arc-gap from each wire to the earth at a point outside the station.
>
> VHF, UHF, and microwave stations use grounded antennas and coax.
Towers
> which support the antenna generally have each tower leg separately
> grounded by a heavy cable to its own ground rod near the tower base.
R-F
> cables and waveguide are grounded at the antenna and at least at the

> base of the tower. Coax nay be coiled with several turns between the
> tower base and the shack to discourage lightning on the outside of
the
> coax from entry to the shack. Waveguide is solidly bonded to the
tower
> but not usually coiled to make a lightning choke.
>
> The solid-state VHF, UHF, or microwave station often needs
additional
> surge protection because of the difference in potential between
electric
> service and antenna system grounds
> This takes the form of husky r-f chokes in each power wire to the
r-f
> equipment. Each choke is shunted at each end to ground with a
capacitor
> and with a voltage limiting device or devices, often MOV`s. There
are
> ready-made brute force coil and capacitor low-pass pi-filters which
need
> only addition of MOV`s to make them effective lightning suppressors.
I
> made mine in an earlier time using Miller Coil Company tower
lighting
> chokes and they worked well. You could wind 2 or 3 dozen turns of
#12 or
> #14 insulated wire in an 8-in. dia. circle to make your own 0.1
> millihenry chokes. The standard choke used to be 2.5 millihenry, but
it
> is not critical.
>
> The same wiring techniques required for noise reduction apply to the
> biggest noise of all, lightning.
>
> Best regards, Richard Harrison, KB5WZI
>

An interesting fact that many don't know is that lightning actually
strkes upwards as the clouds are negatively charged.

--
Woody

harrogate2 at ntlworld dot com

2896. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 23:30:54 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <iKOdnViwpPohd0ffRVn-gw@comcast.com>
Source record: 73261

The full size G5RV IS A 20 Meter antenna!! That's a fact.

It performs as designed on 20 meters!!

Any wire can be made to radiate on other frequencies by using stubs, baluns, tuners, etc. But that does not change the fact that the G5RV is designed as a 20 meter antenna!!

It works on other harmonically related bands, but it is still a 20 meter design!

I used one about 6 years ago. Then changed to a center fed doublet with open wire tuned feeders. I'll take the doublet/tuned feeders any day!

Ham Op

Old Ed wrote:

> Hi there, Op...
>
> Well, the devil is in the details, isn't it?
>
> One "compromise" from a Mercedes is a Yugo.
> That would be a pretty big come-down.
>
> But another "compromise" from a Mercedes would be a BMW
> (or vice-versa). That wouldn't be hard to take at all.
>
> Presumably, the reference antennas against which the G5RV is
> called a "compromise" are full-sized dipoles for the respective
> bands. IF the G5RV can come reasonably close to those
> (and many users seem to think it can), then there is a pretty
> good basis for its enduring popularity.
>
> 73, Ed
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:NMKdnaWoH69QJUffRVn-vA@comcast.com...
>
>>Sine the G5RV is designed for 20 meters, and is a compromise on the
>>other bands: I conclude that the 1/2 scale G5RV is a 10 meter antenna;
>>and is a compromise on the other bands!
>>
>
>
>

>

2897. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 23:37:39 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zKSdnQmEna7McUffRVn-sQ@comcast.com>
Source record: 73262

Thierry wrote:

SNIPPED

> HI,
>
> Good to read : http://www.astrosurf.org/lombry/qsl-lightning-protection.htm
>
> Personnaly, in my humble opinion, under thundery weather there is no better
> solution than unpluging all electronic devices...
>
> Thierry, ON4SKY
>

Agree! But, I still lost an ICOM 756 Pro II when disconnected from
antenna,
and had the power supply unplugged. A ground loop in the external ground on
the 756 and the power supply, where 12 volt return is tied to chassis,
caused
damage to the power connector on the 756 and fried the 756 internal
cabling and
circuit boards were carbonized.

I'm still waiting for my insurance settlement.

MORAL: Lightning does what lightning does!

2898. zepp antenna matchinig method

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-17 23:54:10 UTC
From: larry <larya@rogers.com>
Message-ID: <qvSdnQWASeJ1bUffRVn-1w@rogers.com>
Source record: 73263

Greetings

I am looking for a schematic diagram of a zepp antenna, including the 1/4 matching line and and matchiing method of 50 ohm coax cable...

Are there any website which would show this?...

Larry ve3fxq

2899. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 01:40:04 UTC
From: Elden Fenison <usenet@moondog.org>
Message-ID: <slrnddm206.2m9.usenet@macmini.moondog.org>
Source record: 73264

```
* Brian Kelly [07/17/2005 22:19 UTC]:
>> Yeah, $140 difference. Question about that though... wouldn't the
>> AH-4 be a better choice for another reason? That reason being that
>> the AH-4 is designed to connect to the wire directly at the feed
>> point, whereas the MFJ is apparently designed for in-shack use.
>
> Yes and no, it's a matter of several tradeoffs Elden. Right now I'm up
> to ears in alligators so QRX and I'll get back to you late Monday with
> some comments.

Ok Brian. I appreciate the advice you've given. I do understand that
there sometimes is disagreement between hams regarding certain things,
like having a portion of a radiating element in the shack.

Personally, I think I'd opt for an outdoor-mounted AH-4 for reasons of
efficency, convenience, and safety. But it is nice to know that other
options exist. So right now, my preferred solution is an ICOM IC-718,
with an AH-4 and a longwire. I think that should work nicely.

After surveying the new apartment location a little more closely, looks
like I could run a horizontal longwire, roughly parallel to the ground
for 100ft into a tree with some sort of insulator on the end. Then I
would do the "in apartment" counterpoise/RF ground. This would probably
be about 20/30ft off the ground... second floor height.

Regarding your explanation for getting various wires from indoor to
outdoor, I've taken the exact same approach. Using a thin 2x2 in the
window with cables running in through an opening in it. Seems to work ok
and no permanent holes in the structure.

--
-=Elden=-
http://www.moondog.org
```

2900. Re: zepp antenna matchinig method

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 02:05:56 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42db0dd6.2470462@news.crosslink.net>
Source record: 73265

On Sun, 17 Jul 2005 19:54:10 -0400, "larry" <larya@rogers.com> wrote:

>Greetings
>
>I am looking for a schematic diagram of a zepp antenna, including the 1/4
>matching line and and matchiing method of 50 ohm coax cable...
>
>Are there any website which would show this?...
>
>Larry ve3fxq
>
>

Dear Larry,

There's nothing to show - it's too simple for a picture. You just take a 1/2 wavelength of horizontal antenna and you end-feed it from one side of a piece of balanced line 1/4 wavelength long. You then link couple that to the final tank coil and do your matching with the swinging link and the tank circuit. No equations, no schematics or pictures - just do it!

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2901. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 02:25:48 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <IpECe.86545$Tt.25153@bignews3.bellsouth.net>
Source record: 73266

Interesting, You made me look. (made me Look up coherer, that is).
An invention of Sir Oliver Lodge for detecting rf.
Your idea of using it as a lightning protection device seems to be a
misapplication.
But like I said, until now, I never heard of it.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:0ExCe.35$An2.2190373@news.sisna.com...
> For a receiving antenna, a coherer provides excellent lightning
> protection.
>
> Unfortuantly, on a transmitting antenna, the rf would immediately make
> the coherer conductive and a direct short to ground (perhaps very low
> QRP power could be used?)
>
> One can easily be construted with a bottle filled with metal filings,
> two bare wires are inserted into the filings (not touching and
> seperated by a substantial amount of the filings), one wire goes to a
> good earth ground, the other to the antenna.
>
> If the coherer shorts to ground it only needs to be shaken to reset (I
> would suspect in a real lightning strike the metal would be fused,
> quite possibly even vaporized.)
>
> John
>
> "Jerseyj" <jerseyj69@comcast.net> wrote in message
> news:jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com...
> > Hi all,
> > For years I lived in an apartment and just had antenna's in the
> > attic ,
> > but now having moved to a house in a few months I'll be putting up a
> > 10-160 wire type antenna in my trees. Given the recent spate of
> > serious
> > thunderstorms, and the accompanying lightning, I'm a bit concerned
> > about
> > properly grouding the antenna so that I don't fry the house *smile*.
> > I
> > know about some articles on the ARRL site, but was wondering if
> > anyone
> > else had some ideas or pointers on how to practically do this ?
> >
> > Jerry
>

>

2902. Re: Resistor Frequency Response

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 03:43:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbf8grkuk1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73267

Hi Ed.

Regarding your big 2-watt carbon resistors at 500 MHz -

what values of reflection coefficient or SWR were experienced when you say they "worked fine". Can you remember? Or did you have some other way of assessing "fine" performance?

The DC value has to be allowed a resonably large tolerance about its nominal value and the HF performance cannot be any better than that.

Reg, G4FGQ

2903. Re: Resistor Frequency Response

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 04:12:46 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <2%FCe.4833$dU3.3414@newsread2.news.pas.earthlink.net>
Source record: 73268

Hi Reg,

Our definition of "worked fine" was that the measured SWR was
consistent with the rated DC resistance and tolerance. As I recall,
we were using 51 Ohm 5% resistors. Typical SWR was under
1.1 up to 100 MHz, and 1.2 to 1.3 at 500 MHz for the bent-lead
(lesser performing) version.

These loads were just for handy lab use, and were not products or
calibrated test equipment, of course.

Ed

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dbf8grkuk1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Hi Ed.
>
> Regarding your big 2-watt carbon resistors at 500 MHz -
>
> what values of reflection coefficient or SWR were experienced when you
> say they "worked fine". Can you remember? Or did you have some other
> way of assessing "fine" performance?
>
> The DC value has to be allowed a resonably large tolerance about its
> nominal value and the HF performance cannot be any better than that.
> ----
> Reg, G4FGQ
>
>

2904. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 04:37:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vcamd1dq3necesp754e5dapmfjck15vkkq@4ax.com>
Source record: 73269

On Sun, 17 Jul 2005 11:07:12 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:
>I can demonstrate this in that when posed with a REAL power
>application, silence typically falls for the simplest of computations.
>Like how much power does a light bulb radiate to illuminate in the
>660nM region a target of 1 cm square, at 1 M with 64 microWatts/30 nM
>of bandwidth?

Dear Readers,

It comes as no great surprise that this simple example of optical
power is so powerfully baffling to a neophyte. Optical studies are
not nearly as simple as some might believe, and on the other hand, the
field yields answers as easily as any if you simply observe first
principles.

Those principles are as simple as knowing the area of the total
surface illuminated by the standard light bulb (we will ignore the
shadow cast by the base). This is quite easily determined as I
already offered the distance of 1M and the equivalent power within a
1cM area of that total surface.

The math is hardly as arcane as "interference math," but as I have
demonstrated how poorly that was performed, perhaps a little walk
through here is in order.

The area of sphere, at 1M radius quickly resolves to 4ï¿½pi Mï¿½.
Conversion to cMï¿½ "should" be a knock off, but when you use 5 place
math to perform 1 place accurate results.... Well, let's just cut to
the chase and skip all the so obviously difficult parts and just
answer the question above.

Our source is a 10W bulb. Common, mud-ordinary situation offering
smaller values of power than supposedly encountered in the
"reflections" of this "Can you solve this?" drek. And as I offered,
such reflections as you would observe (much like the mathematical
impossibility of a bee's flight) - quite bright.

However, this was on scale with 1cMï¿½ and when the original question
posed a 1W laser - well you can appreciate that I do not hesitate to
point out that the power of those "totally" cancelled reflections are
easily 10,000 time brighter than my insipid Christmas tree bulb - and
AT LEAST 10 TIMES BRIGHTER THAN THE SUN!

One must truly imagine quite hard to dismiss such brilliance as being
"totally" canceled out to the point of invisibility. :-)

It has been enjoyable, and yet there are questions remaining that relate to the point of this origin in "Glare." I notice that this too draws a vacuum of response and yet it was so central to "illustrating" a thesis. No wonder such papers find their way to the round file at the editor's desk. The only chance for publication, however, is strictly meeting the academic strictures of a vanity press - its vaudeville quality. In this regard, the opus of "total cancellation" is destined for serialization and possibly a Hollywood movie for next summer. Myself, I enjoyed the new "Hitchhiker's Guide to the Galaxy," but I found the new Ford Prefect rather lame. Oh well, I went to the matinee showing to save a buck or two - so let's call it break-even.

73's
Richard Clark, KB7QHC

2905. How the "professionals" do it

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 06:09:59 UTC
From: news <news@care4free.net>
Message-ID: <H7wussHXY02CFwAu@care4free.net>
Source record: 73270

http://www.wrightsaerials.tv/032033034035036.htm

--
Ian

2906. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 06:29:14 UTC
From: Tony VE6MVP <tony@REMOVEve6mvp.com>
Message-ID: <mtimd1lbvg0933j4184oi4k63vjebanuii@4ax.com>
Source record: 73271

On Fri, 15 Jul 2005 10:16:02 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Another example is found in high pressurre gas pipelines. Their internal >pressure cycles and this tends to enlarge microscopic cracks, if any, in >the pipe. Pipes are hydrostatically tested before placed in service (no >energy storage in water as it is incompressible) so a pipe blow out of >water won`t likely hurt a bystander. After the pipe is put in service it >is retested each year.

A major problem for pipelines are where both corrision and cracks are within limits but close to each other. The pipeline folks have been analyzing and fixing those for over a decade now.

Retesting is not done by pressure, as far as I know, but by sending "pigs" down the line to analyze the pipeline.

Tony

2907. Re: yaesu vx-5r or kenwood th-f7????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 06:44:15 UTC
From: "jOn....." <nospamta@ntlworld.com>
Message-ID: <3dICe.2612$Oe4.575@newsfe3-gui.ntli.net>
Source record: 73272
Cross-posted to:
alt.ham-radio.mods,alt.ham-radio.vhf-uhf,de.comm.ham,rec.radio.amateur.antenna,rec.radio.amateur.dx,uk.radio.amateur

```
"Ed" <no1@home.not> wrote in message
news:X9OdnTlYALJOQkXfRVn-2w@comcast.com...
> Steve Terry wrote:
> > "c" <no@spam.com> wrote in message
> > news:3f060936$0$45378$1b62eedf@news.wanadoo.nl...
> >
> >>Hello All,
> >>I want to buy a handheld for 2, and 70cm.
> >>I was thinking to buy a kenwood th-f7e, or
> >>a yeasu vx-5r.
> >>They are now in stock, the price is the same, it's
> >>399 euro.
> >>
> >
> > Got something against the VX-7 ?
> > the VX-5 is now obsolete
> >
> > Steve Terry
> >
> >
>
> Hmmmmm... last time I used mine it worked just fine. It may not be
> manufactured any longer, but it is far from obsolete.
```

And I bought the whole kit in America for almost half price
car adaptor
stand alone fast charger
speaker mic
extra battery
programming software and cable
soft case
a smaller comet antenna
a bnc/sma adaptor
barometer altimeter board
$537
and already had a 110v converter ☺1

2908. Re: How the "professionals" do it

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 06:59:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qnkmd1hmp0hm2o0fkdb7qig9sgnpi3c4qh@4ax.com>
Source record: 73273

On Mon, 18 Jul 2005 06:09:59 GMT, news <news@care4free.net> wrote:

>http://www.wrightsaerials.tv/032033034035036.htm

Hi Ian,

The one picture is something, the procession of shots following are
staggering.

73's
Richard Clark, KB7QHC

2909. Beam tilting: how the "professionals" do it

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 07:19:17 UTC
From: news <news@care4free.net>
Message-ID: <oZAFk0KVh12CFw26@care4free.net>
Source record: 73274

In message <qnkmd1hmp0hm2o0fkdb7qig9sgnpi3c4qh@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>On Mon, 18 Jul 2005 06:09:59 GMT, news <news@care4free.net> wrote:
>
>>http://www.wrightsaerials.tv/032033034035036.htm
>
>Hi Ian,
>
>The one picture is something, the procession of shots following are
>staggering.
>
>73's
>Richard Clark, KB7QHC

You can say that again!

I wonder if there is a similar series anywhere on tower installation
..... :-))

--
73
Ian, G3NRW

2910. Re: How the "professionals" do it

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 07:22:50 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <eNICe.47187$up5.39513@lakeread02>
Source record: 73175

news wrote:

> http://www.wrightsaerials.tv/032033034035036.htm
>

Gee, I've known worse here in Az, but not much worse.
--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2911. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 10:47:07 UTC
From: Thierry <->
Message-ID: <42db88af$1@news.vo.lu>
Source record: 73176

"Ham op" <hamop@comcast.net> wrote in message
news:zKSdnQmEna7McUffRVn-sQ@comcast.com...
> Thierry wrote:
>
> SNIPPED
>
> > HI,
> >
> > Good to read :
http://www.astrosurf.org/lombry/qsl-lightning-protection.htm
> >
> > Personnaly, in my humble opinion, under thundery weather there is no
better
> > solution than unpluging all electronic devices...
> >
> > Thierry, ON4SKY
> >
> Agree! But, I still lost an ICOM 756 Pro II when disconnected from
> antenna,
> and had the power supply unplugged. A ground loop in the external ground
on
> the 756 and the power supply, where 12 volt return is tied to chassis,
> caused
> damage to the power connector on the 756 and fried the 756 internal
> cabling and
> circuit boards were carbonized.
>
> I'm still waiting for my insurance settlement.
>
> MORAL: Lightning does what lightning does!
>

For sure, as soon as there is a sink, a path of lower resistance, the
lightning will find it and will follow it to your most expensive accessory..
This canal can be the coaxial, the house cabling system, even yourself if by
mistake you touch a metallic device during the thunder. Even the ground as
state in my article can be an excellent way for the lightning to strike your
installation. Hence it is better to entrust this installation to experts.

So I when I say to unplug all devices, this is *all* cabling system,
including grouding.

Usually the insurance do an excellent job and you should be able to rebuy
all your defective devices.

Good luck.
73
Thierry, ON4SKY

2912. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 10:57:08 UTC
From: Thierry <->
Message-ID: <42db8b09$1@news.vo.lu>
Source record: 73177

"DAVID BROWNE" <david.browne5@btinternet.com> wrote in message
news:wp9Ce.791$vv6.365@newsfe6-gui.ntli.net...
> what is best for 10-40m windom or g5rv half size
>
> thanks dave browne 2e0 dmb
>
>

I haven't use the half-size models which are too small to give good results,
excepted for local QSO (and dxing with luck during high solar cycle, hi!)
I am not sure that your solution will be efficient, even on 15 or 20m.
All depend on what you want to do with it and on what band.

I used both in full-length and I prefer the reception pattern of the windom
that fills the gaps not covered by the dipole due to its vertical segment.
The overall performance is better that using a G5RV close to the same
length.

Here is some impressions when I used both :
http://www.astrosurf.org/lombry/qsl-antenna3.htm (second half of page)
and here http://www.astrosurf.org/lombry/qsl-g5rv.htm for some diagram
patterns of the G5RV.

Thierry, ON4SKY

2913. Re: Resistor Frequency Response

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 14:31:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbgegs$755$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73178

Thanks Ed for the information. I need time to think about it.

At first sight your data falls in the same ball park as that generated by program METALFLM below 500 MHz. Ball-park accuracy is all that anybody can expect under the circumstances.

It is a fact that program METALFLM is the first of many programs I have ever produced without the support of personal measurement experience. I have very little practical experience of frequency response of resistors above above 30 MHz and not very much below that.

But I DO have confidence in my assessment of L and C values as calculated from physical resistor dimensions. Also I have confidence in my ability to model equivalent circuits of distributed L, C and R components.

In the end, all that's needed. are the limits of reflection coefficients versus frequency for ordinary wire-end resistors mounted on circuit boards.

And of course, rubbish in = rubbish out.

Cecil, is there an IEEE definition of "Ball Park Accuracy" ? I'm on South African red. Gone off Californian white.

Reg, G4FGQ

By the way, the program has brought to light the fact that board-mounted resistors in the range 100 to 400 ohms have a slightly better frequency response than those around 50 ohms. Therefore, wideband 50-ohm dummy loads are best made from a nunber of higher value resistors connected in parallel. Avoid series connections. Which is what most people do anyway.

RJE

2914. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 14:44:41 UTC
From: richardharrison@webtv.net
Message-ID: <6018-42DBC059-504@storefull-3256.bay.webtv.net>
Source record: 73179

Cecil, W5DXP wrote:
"Concerning open-circuited or short-circuited transmission lines, if the voltages add up to zero, that looks like a short, and current is at a maximum. If these conditions occur at the source, 100% re-reflection of the incident reflected wave energy is guaranteed. The Bird reads equal forward and reflected power all up and down the feedline."

Yes. A bird is indicatihg power in one direction only and this is the same along a low-loss line everywhere along the line regardless of SWR.

A short does not kill line energy. It merely transfers electric field energy into the magnetic field for an instant producing an SWR in which voltage and current patterns are 90-degrees apart.

When the load end of a transmission line is shorted, 100% of the incident wave is reflected but the reflected wave has a complete reversal in phase of its voltage with no change in the phase of its associated current.

When the load end of a transmission line is open-circuited, 100% of the incident wave is reflected but the reflected wave has a complete reversal in the phase of its current with no change in the phase of its associated voltage.

When the source end of a transmission line is effectively a short or open circuit, ir re-reflects the reflected wave.

Best regards, Richard Harrison, KB5WZI

2915. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 14:59:23 UTC
From: chuck <nospam@nospam.net>
Message-ID: <ftPCe.13196$aY6.725@newsread1.news.atl.earthlink.net>
Source record: 73180

Does anyone know of cases where houses have fried as a consequence of ham wire antennas, "protected" or otherwise?

We all know of cases where electronics gets zapped but Jerry is concerned about his house.

Be interesting to hear of actual cases, wouldn't it? Statistics would be even better, but I won't hold my breath.

Chuck

Jerseyj wrote:
> Hi all,
> For years I lived in an apartment and just had antenna's in the attic ,
> but now having moved to a house in a few months I'll be putting up a
> 10-160 wire type antenna in my trees. Given the recent spate of serious
> thunderstorms, and the accompanying lightning, I'm a bit concerned about
> properly grouding the antenna so that I don't fry the house *smile*. I
> know about some articles on the ARRL site, but was wondering if anyone
> else had some ideas or pointers on how to practically do this ?
>
> Jerry

2916. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 15:32:42 UTC
From: richardharrison@webtv.net
Message-ID: <983-42DBCB9A-590@storefull-3252.bay.webtv.net>
Source record: 73181

Tony wrote:
"(Pipeline) Retesting is not done by pressure, as far as I know, but ny dending "pigs" down the line to analyze the pipeline."

No surprise. Hydrostatic testing pressurized pipes to maximum pressure or slightly more to prove their safety. This itself tends to aggravate cracks.

A pig is a carriage (usually wheeless and propelled by differential pressure) through the pipe. They serve many purposes. They can be used for video inspections, ultrasonic tests, or X-ray review of a pipe.

When I was a pipeliner, they were often blown through a pipe to clear it of trash and liquids.

Best regards, Richard Harrison, KB5WZI

2917. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 15:59:41 UTC
From: richardharrison@webtv.net
Message-ID: <983-42DBD1ED-594@storefull-3252.bay.webtv.net>
Source record: 73182

Chuck wrote:
"We all know of cases where electronics gets zapped but Jerry is concerned about his house."

Ben Franklin promoted lightning rods to protect people and houses before electronics was. These rods would not have sold had they not seemed to work. Tell me a drowning man will grasp at straws!

Best regards, Richard Harrison, KB5WZI

2918. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 16:20:09 UTC
From: richardharrison@webtv.net
Message-ID: <983-42DBD6B9-598@storefull-3252.bay.webtv.net>
Source record: 73183

Chuck wrote:
"We all know of cases where electronics gets zapped but Jerry is concerned about his house."

I`ve worked in many protected structures struck repeatedly by lightning to their air terminals, rods, and towersm resulting in not one scintilla of damage to occupants or equipment.

Transportation vehicles are struck by lightning every day and seldom experience anything inside. An open convertible is not safe in a lightning strike however.

Best regards, Richard Harrison, KB5WZI

2919. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 16:38:19 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1121704699.339970.227790@g43g2000cwa.googlegroups.com>
Source record: 73184

Elden Fenison wrote:
> * Brian Kelly [07/17/2005 22:19 UTC]:
> >> Yeah, $140 difference. Question about that though... wouldn't the
> >> AH-4 be a better choice for another reason? That reason being that
> >> the AH-4 is designed to connect to the wire directly at the feed
> >> point, whereas the MFJ is apparently designed for in-shack use.
> > >
> > > Yes and no, it's a matter of several tradeoffs Elden. Right now I'm up
> > > to ears in alligators so QRX and I'll get back to you late Monday with
> > > some comments.
> >
> > Ok Brian. I appreciate the advice you've given. I do understand that
> > there sometimes is disagreement between hams regarding certain things,
> > like having a portion of a radiating element in the shack.

Yeah, everybody has different opinions and experiences with this topic.
Personally I've never had a problem in the shack with wires that I
didn't also have when using a coax-fed antenna which is located
anywhere near the shack. Maybe I'll get a dose of it eventually and
have to eat my words.

> > Personally, I think I'd opt for an outdoor-mounted AH-4 for reasons of
> > efficency, convenience, and safety. But it is nice to know that other
> > options exist. So right now, my preferred solution is an ICOM IC-718,
> > with an AH-4 and a longwire. I think that should work nicely.

You made the tradeoffs and there ya go. Sure it'll work.

> > After surveying the new apartment location a little more closely, looks
> > like I could run a horizontal longwire, roughly parallel to the ground
> > for 100ft into a tree with some sort of insulator on the end. Then I
> > would do the "in apartment" counterpoise/RF ground. This would probably
> > be about 20/30ft off the ground... second floor height.

I dunno . . I'd expect a wire strung vertically as far as possible up
into that 100 ft tree to work a *whole* lot better than a low
horizontal wire even if the vertical is shorter.

Keep in mind that trees move around and the wire will be tensioned or
droop when the wind is up. I've had a couple wires break and I've also
had one dipole drop because the rope running from the end of the
antenna to ground level wore thru. Another discussion.

> > Regarding your explanation for getting various wires from indoor to
> > outdoor, I've taken the exact same approach. Using a thin 2x2 in the
> > window with cables running in through an opening in it. Seems to work ok

> and no permanent holes in the structure.

You're set. Good luck.

> -=Elden=-
> http://www.moondog.org

w3rv

2920. hexa-beam user in ON, F, LX ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 16:45:36 UTC
From: Thierry <->
Message-ID: <42dbdcb6$1@news.vo.lu>
Source record: 73185

Hi,

I am searching for a user of Hexa-beam HXP (portable serie) living in ON or close, specially between Brussels-Luxembourg-Metz.
I'ld like to visit and speak about your installation

Please contact me via my post form :
http://www.astrosurf.org/lombry/post.htm

73
Thierry, ON4SKY

2921. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 17:14:42 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <okond1t3hohthekuj70gt9qmua7bs3p04n@4ax.com>
Source record: 73186

On Mon, 18 Jul 2005 10:59:41 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Chuck wrote:
>"We all know of cases where electronics gets zapped but Jerry is
>concerned about his house."
>
>Ben Franklin promoted lightning rods to protect people and houses before
>electronics was. These rods would not have sold had they not seemed to
>work. Tell me a drowning man will grasp at straws!
>
>Best regards, Richard Harrison, KB5WZI

Franklin, defying the gods, performed his kite flying experiment in June of 1752, and by late June or July, the first "lightning rods" were installed on structures in Philadelphia. Ol' Ben kinda made up his own "nec code".

bob
k5qwg

2922. Hexa-beam radiation pattern ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 17:16:36 UTC
From: Thierry <->
Message-ID: <42dbe3fa$1@news.vo.lu>
Source record: 73187

Hi,

Could someone provide me the radiation patterns of Hexa-beam, specially the HXP, at low (6') and high elevation (30') above ground
The manufacturer website does not really extend on the performances of his antennas and I 'l like to get more "in the field" measurements before buying it (even if I read some comments on eham, cq, etc).

Thanks in advance

73
Thierry, ON4SKY
http://www.astrosurf.org/lombry

2923. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 17:33:25 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <FJRCe.4977$dU3.3558@newsread2.news.pas.earthlink.net>
Source record: 73188

Hi again, Ham Op -

You're one step ahead of me re the G5RV in that you have
used one. I have not. I see no reason to doubt your (inferred)
statement that you were only satisfied with it on 20m.

However, the ARRL antenna book lists the G5RV in the chapter
on Multiband Antennas, and begins the description as follows:
"A multiband antenna that does not require a lot of space, is simple
to construct, and is low in cost is the G5RV." (To be fair, the ARRL
piece goes on to state that 20m is the most-favored band in the
G5RV design.)

A common-sense question would be: Why would Varney design
a single-band 20m doublet that is bigger and more complicated
than a single-band 20m dipole, unless he was looking for some
added benefit--e.g., multiband operation? Alas, I don't have ready
access to Varney's old articles, so his thought process will have to
remain unknown to me for the time being.

I have no wish to assume the role of Chief Defender of the G5RV.
I merely responded to some G5RV/2 criticisms that I found illogical.
My dipoles are of the trap and fan variety, and I like them that way.

If I go off the reservation to another type of wire antenna, it won't
be either a Windom or a G5RV; I'd like to experiment with a
multiresonant OCF design. (I really don't want to bring antenna
tuners into my mix--either the conventional lumped-constant type,
or Cecil's variable-line-length type.) I like "instant" QSY+QRO.
Your mileage may vary.

Good DX,

Anonymous Handle (just for grins)

"Ham op" <hamop@comcast.net> wrote in message
news:iKOdnViwpPohd0ffRVn-gw@comcast.com...
> The full size G5RV IS A 20 Meter antenna!! That's a fact.
>
> It performs as designed on 20 meters!!
>
> Any wire can be made to radiate on other frequencies by using stubs,
> baluns, tuners, etc. But that does not change the fact that the G5RV is
> designed as a 20 meter antenna!!
>
> It works on other harmonically related bands, but it is still a 20 meter
> design!

>
> I used one about 6 years ago. Then changed to a center fed doublet with
> open wire tuned feeders. I'll take the doublet/tuned feeders any day!
>
> Ham Op
>
>

2924. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 17:46:48 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dbgpuapls1@news.service.uci.edu>
Source record: 73189

Richard Harrison wrote:
> When the source end of a transmission line is effectively a short or
> open circuit, ir re-reflects the reflected wave.

Are we then supposed to infer that it [the source] doesn't re-reflect
the wave if anything other than a short or open circuit appears there?

73, ac6xg

2925. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 18:37:15 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbgsst$r38$1@news.service.uci.edu>
Source record: 73190

Cecil Moore wrote:

> Measuring the current at the mid-point of that
> 1/2WL of feedline will prove the feedline is filled with
> EM wave energy which must travel at the speed of light.

So it follows that measuring voltage at the wall outlet proves there's energy filling the wall. As always, it's important to remember that any such energy would of course be traveling at the speed of light - and no faster. :-)

> The Bird will read 100w forward and 100 reflected on the
> feedline. An RF current meter at the center of that 1/2WL
> of feedline will read 2.828 amps. That's the sum of the
> forward current and reflected current in phase, 1.414 amps
> in the forward direction and 1.414 amps in the rearward
> direction. 1.414^2*50 = 100w for both forward and reflected
> powers. The Bird is right. Those powers are really there
> supporting the forward and reflected waves and cannot be
> used for any other purpose.

A veritable black hole of logic: it's inescapable! :-)

> Since the feedline is lossless,
> there's no lost energy to replace so the source power output
> is zero. Anything else would violate the conservation of
> energy principle. Note that at the above current maximum
> point, the net flow of energy is zero since the Poynting
> vectors for forward and reflected power add up to zero.

Noting of course that EM energy can't normally put itself back into the source after it's done bouncing around. So, since there's no load and the system is lossless, no energy is produced or transferred, which means zero power. In this instance, the readings on the Bird wattmeter are not at all helpful toward understanding the flow of EM energy - which as Cecil is always kind enough to remind us, travels not just at any speed, but at the speed of light.

73, ac6xg

2926. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 19:21:19 UTC
From: richardharrison@webtv.net
Message-ID: <15054-42DC012F-630@storefull-3254.bay.webtv.net>
Source record: 73191

Jim Kelley wrote:
"Are we then supposed to infer that it (the source) doesn`t re-reflect
the wave if anything other than a short or open circuit appears there?"

The reflection may be incomplete unless either a hard short or complete
open-circuit appears at the source where the generator meets the
transmission line. If the source appears as a complete short or open the
reflection is total.

Best regards, Richard Harrison, KB5WZI.

2927. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 19:51:33 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbh189svu1@news.service.uci.edu>
Source record: 73192

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Richard Clark wrote:
>>
>>> Jim Kelley <jwkelley@uci.edu wrote:
>>>
>>>> Born and Wolf has an interesting comment in the section on total
>>>> reflection. "...the electromagnetic field in the second medium does
>>>> not disappear, only there is no longer a flow of energy across the
>>>> boundary."
>>>
>>>
>>> your source, and yet unable or unwilling to confront this single
>>> observation.
>>
>>
>> Apparently that would mean the waves aren't traveling at the speed of
>> light and it would violate his "waves cannot exist without energy" law
>> of physics, so therefore the book is wrong.
>
>
> Wrong. All it means is that reflected energy doesn't make it across
> the match point.

It says, and means more than just that, obviously.

>
> "... when two waves of equal amplitude and wavelength that are 180-degrees
> out of phase with each other meet, they are (canceled but) not actually
> annihilated. All of the photon energy present in these waves must somehow
> be recovered or redistributed in a new direction, according to the law of
> energy conservation. (There are only two directions available in a
> transmission
> line.) Instead, upon meeting, the photons are redistributed to regions that
> permit constructive interference, so the effect should be considered as a
> redistribution of light waves and photon energy (back toward the load)
> rather
> than the spontaneous construction or destruction of light." (Words in
> parentheses
> are mine added for clarity.)

Interesting to note that the interference phenomenon is often described
as a redistribution, but is never described in any reference as a

reflection, or re-reflection as you have done. The reason is that when light destructively interferes in some direction, it simply does not go in that direction. It doesn't, contrary to your assertion, first go in the reflected direction, say oooops, then turn around in mid-air and go in the other direction. The reflection is prevented. Comprende senor? The Bird wattmeter can be misleading in this regard. It measures the effect of a field (sometimes like the one in Born and Wolf that doesn't have transfer of energy associated with it), and in every case assumes energy and power. But it's simple minded so it has an excuse.

73, ac6xg

2928. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 20:07:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r81od1d5dboro8scmgh0jg8t26afmu9cos@4ax.com>
Source record: 73193

On Sun, 17 Jul 2005 21:37:50 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

> there are questions remaining that
>relate to the point of this origin in "Glare." I notice that this too
>draws a vacuum of response and yet it was so central to "illustrating"
>a thesis.

Dear Readers,

Taking a deep breath and wading into the hits found at Google comes
one very typical observation:

" The methods discussed above will work with varying degrees of
success, depending on the details of the manufacturer's process.
The glare reduction factors claimed by many manufacturers should
not be taken too seriously. Some claim glare reduction factors of
up to 250 to 1. Such numbers are either dreamed up in the
advertising department or are the result of unrealistic test
conditions. A good quality anti-glare filter with a multi-layer
optical coating will reduce glare and reflections by about a
factor of 20. Visually compare glare reductions before you buy
anything."

I leave the WHO undisclosed (being it is such a tantalizing overture
to yet another, unanswerable question). We may all note that what is
described here is "multi-layer" which suggests more than one layer for
more than one BW of glare components (yet another tantalizing,
unanswerable question: What wavelength is Glare?). I will pose that
the necessity for multiple layers is derived from the same need for
one (which is actually quite useless in ordinary life).

As I offered, this is all a very common arena for the optical
engineer, and thin-films are tools for SPECIFIC needs (the WHEREFOR,
or yet another tantalizing, unanswerable question whose origin is one
of practicality) rather than as sacred cows for the theory of
moonbeams.

There are correlatives in RF and antennas such that this is not an
alien discussion. However, it takes little more effort to be correct
instead of simply clowning through the math, because these side-show
results we have been subjected with can be stretched to cover any kind
of bizarre theory. As the final line of the quote above suggests:
"Visually compare glare reductions before you buy anything."
rather ordinary advice that is so aggressively shunned by, instead,
shoveling formulas at us instead.

73's
Richard Clark, KB7QHC

2929. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 20:32:06 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <XNudnTI0vud4jEHfRVn-1Q@comcast.com>
Source record: 73194

Richard, we both know that a transportation vehicle makes a pretty good
Faraday[sp?] Cage.

Lightning attaching to a wire will instantly vaporize the wire.

Physical damage is generally caused by direct strike. The energy in the
action intergral [I^2*R*dt] generates local heat. The thermal shock
causes the damage. [And fire].

Richard Harrison wrote:
> Chuck wrote:
> "We all know of cases where electronics gets zapped but Jerry is
> concerned about his house."
>
> I`ve worked in many protected structures struck repeatedly by lightning
> to their air terminals, rods, and towersm resulting in not one scintilla
> of damage to occupants or equipment.
>
> Transportation vehicles are struck by lightning every day and seldom
> experience anything inside. An open convertible is not safe in a
> lightning strike however.
>
> Best regards, Richard Harrison, KB5WZI
>

2930. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 20:39:53 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <17871$42dc157c$97d55ac3$1784@ALLTEL.NET>
Source record: 73195

I had the experience of a direct hit to my antenna. It was a 130 foot cage fed with ladderline. Coax was used the last 20 feet to bring it into the house.

Inside I had a TS-440, a TS-820 and an MFJ 989C.

The bolt destroyed the side of the antenna that went to the shield of the coax, the largest remaining piece was about 3" in length with most of it vaporized. The ladderline was vaporized, the other half of the dipole was untouched.

The coax split open like a hotdog put in a microwave. The same stroke went into the electric utilities and blew every electronic device in the house except a cheap GE clock radio.

A stroke went through the wiring in the ceiling and the explosive expansion of hot air blew all the vinyl siding off the front and one side of the house.

The only fire damage was a small burn mark on the shack carpet where the coax laid on the floor.

All antennas were grounded via the antenna switch and all ham gear was unplugged. All antennas had blitzbuggs and coiled coax before entering the house. These were tied to both RF ground and the single point electrical ground.

What was strange was the stroke following paths along wood beams while ignoring good conducting copper wires 3 feet away. The only damage to the ham gear was a burn mark and heat distortion on the rear panel of the tuner. It's operation was unaffected.

"chuck" <nospam@nospam.net> wrote in message
news:ftPCe.13196$aY6.725@newsread1.news.atl.earthlink.net...
> Does anyone know of cases where houses have fried as a consequence of
> ham wire antennas, "protected" or otherwise?
>
> We all know of cases where electronics gets zapped but Jerry is
> concerned about his house.
>
> Be interesting to hear of actual cases, wouldn't it? Statistics would be
> even better, but I won't hold my breath.
>
> Chuck
>
> Jerseyj wrote:
> > Hi all,

> > For years I lived in an apartment and just had antenna's in the attic ,
> > but now having moved to a house in a few months I'll be putting up a
> > 10-160 wire type antenna in my trees. Given the recent spate of serious
> > thunderstorms, and the accompanying lightning, I'm a bit concerned about
> > properly grouding the antenna so that I don't fry the house *smile*. I
> > know about some articles on the ARRL site, but was wondering if anyone
> > else had some ideas or pointers on how to practically do this ?
> >
> > Jerry

2931. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 20:46:02 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbh4eg$15q$1@news.service.uci.edu>
Source record: 73197

Richard Harrison wrote:

> Jim Kelley wrote:
> "Are we then supposed to infer that it (the source) doesn`t re-reflect
> the wave if anything other than a short or open circuit appears there?"
>
> The reflection may be incomplete unless either a hard short or complete
> open-circuit appears at the source where the generator meets the
> transmission line. If the source appears as a complete short or open the
> reflection is total.
>
> Best regards, Richard Harrison, KB5WZI.

Hmmm. I wonder if the phase change on re-reflection the same as it does on reflection. If it does, and the transmission line is a half wave long, the Bird wattmeter readings would be real hard to explain.

And isn't it true that if there were actually a real hard short or a complete open circuit at the source, there wouldn't even be a signal on the transmission line?

73, ac6xg

2932. Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 20:49:31 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <jAUCe.99834$qm.31465@bignews5.bellsouth.net>
Source record: 73196

Not to "knock" the name brands in HF mobile, but have you ever wondered why they cost so much--up to 700 bucks for a screwdriver all-band mobile antenna? I do because I couln't AFFORD to pay 5-7 hundred bucks for a mobile HF antenna! And it's not the performance you are paying for; it's fancy paint jobs and "consumer" gimmickry that run the price up! And, actually the performance *may* be not be all that good anyway. Take for example the ones that claim 160-10 Meter coverage. Take a look at the loading coil, yeah, the 1 1/2" one. The one that is "transformer-wound" with ultra thin wire. THAT'S how they are doing it. Also, many times 160 meter mobile performance isn't all that spectactular anyway.

That is why I build the Carolina Cyclone screwdriver. I knew what I would want *if* I were in the market for a screwdriver that would run with the big boys, but wouldn't break the budget. Here is a 2" diameter screwdriver that does "outtalk" those "all-band" units and it does it with large diameter wire (14 gauge) and 8 turns spacing--about 1 wire diameter in between. The result is an HF mobile antenna that delivers coverage from 80 thru 10 Meters with a solid, reliable signal even when conditions
squash other mobiles. That includes the "transformer-wound" ones. For the guys that spend a lot of time on 80 and 40 Meters, I build and recommend the Cyclone II, a 3" diameter coil. It's for the fellas that spend a lot of time on these bands. It earns its keep everytime. It's what I have on my pickup truck.

I don't know it all, but I've done a LOT of experimenting and I have found that, for the best performance on the lower bands, 3 inches is about the best overall. If you go much bigger, then the "Q" goes so high and the bandwidth so narrow, you spend much time re-tuning as you drive along. I once tried out a 6" bugcatcher, and you couldn't move 5 feet until it would be WAAAY off, and you'd need a tuner to use it at all. NO fun.

So I have build the Carolina Cyclone for the past 10 years. It is a basic, good-looking screwdriver. It does not use PVC at all. All parts are machined in a professional shop, and these parts are hard, black nylon. It allows one to use an amplifier up to 1000 wattsSSB (1500 with the Cyclone II) without worry. It comes with either a clear or a Sked 20 PVC coil cover (don't confuse with that with the INTERNAL works). Some people actually like the solid cover and it gives the optical illusion of being "shorter" than it actually is--nice for those XYL's/spouses that object to tall antennas. Your choice as to the cover.
And while many screwdrivers cost hundreds more, the Carolina Cyclone costs only $240--$350 for the Cyclone II. Shipping is included in the price, but price is also less whip(they are too darn hard to package and ship). And if you are running an Icom 706, I will include a little module that will allow you to semi-automatically set your antenna quickly with a tone signal.

I don't do a whole lot of advertising, and I am retired so this gives me a little work in my shop. I love building antennas and this gives vent to my hobby,

Visit www.qsl.net/k4kwh

Thanks all es 73

K4KWH

2933. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 20:53:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b9607$42dc170d$97d55ac3$2270@ALLTEL.NET>
Source record: 73198

11001000 nW

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:hr6jd15rt755h5ee9v1bi1d00sdgqoi9m9@4ax.com...
> On Sat, 16 Jul 2005 17:15:58 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
> Bubba, you can't even answer simple power questions like:
> You have a one square cm target that is irradiated with
> 64 microWatts of 660nM radiation at a distance of 1M
> from a light bulb. (which is less than the power reflected from
> one of your example interfaces and still visibly quite bright.)
>
> How much power is found in the 555nM spectrum expressed
> in Lux?
>
> Both are power spectrums within a 30nM BW.
>
> How much total power is the light bulb radiating?
>
> Optical engineers can answer this, and I will by midnight. ;-)
>
> No one expects a binary engineer can (example of a simple 1 or 0).

2934. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:09:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hg6od154fh6ivg6d7ploqq9t3t07vtfhcu@4ax.com>
Source record: 73199

On Mon, 18 Jul 2005 16:53:37 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>11001000 nW
>

Hi Fred,

Well, actually 11011100 nW, but as you are within 1010% you have
certainly come closer than any other binary engineer. ;-)

73's
Richard Clark, KB7QHC

2935. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:16:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <em6od1pedq1g33hh2hc96vhvfn66desi3s@4ax.com>
Source record: 73200

On Mon, 18 Jul 2005 13:46:02 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Hmmm. I wonder if the phase change on re-reflection the same as it does
>on reflection. If it does, and the transmission line is a half wave
>long, the Bird wattmeter readings would be real hard to explain.

Hi Jim,

In fact it is explainable (done it several times here in fact) and is
called mismatch uncertainty which is quantifiable error derived from
attempting to measure power between two mismatches. When the
generator mismatches the line by as little as 2:1 and so does the
load, you are already pushing 20% error.

However, the quantification is resolved through interference math.
No, not like the stuff presented in this "Can you solve this," but
close enough (sans the howling errors of commission).

>And isn't it true that if there were actually a real hard short or a
>complete open circuit at the source, there wouldn't even be a signal on
>the transmission line?

Ah, Reciprocity! The first law ditched over the side when a new
"theory" hits the boards.

73's
Richard Clark, KB7QHC

2936. QUESTION: Roach/Squid Pole Antenna for 10, 20 and 40m?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:25:43 UTC
From: Timothy@tholtom.freeserve.co.uk
Message-ID: <1121721943.632950.150070@z14g2000cwz.googlegroups.com>
Source record: 73201

I am now the proud owner of a 8m collapsable carbon fiber roach fishing pole.

I live on the 9th floor the (top floor) of an appartment block. I have a hemi-eliptical balcony, about 3-4 meters across, I have a steel balcony railing streching around enclosing it. There is a steel drain dipe running through one corner of the balcony. I have unlimited height (blue sky). I thought of lashing (or using sterling hose clips) to secure the first section of the roach pole to the one corner of the balcony, then I thought of using the top of the fishing rod to suspend one end of a trapped dipole or G5RV(?) antenna, and fixing the other via an insulator to an eye hook in the wall...

Only problem is the pole might be struggling to support the weight of the trapped dipole.....(?)

With the above features, what would be the optimum 10, 20 and 40m solution given the space I have, roach pole (supports limited weight), drain pipe (good ground??), balcony etc...

Either commercial or homebrew, prefer home brew....

Tim

2937. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:25:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc1f6b$1_2@spool9-west.superfeed.net>
Source record: 73202

Richard Clark wrote:
> It is a poor example of understanding when you purposely inject error.
> There is nothing clear about intentional mistakes. Any rejection of a
> complete solution is a suspect agenda from the beginning.

Richard, since you seem to be incapable of understanding the
simplest lossless, refractionless, laser example, it makes
no sense to complicate things with additional details.
--
73, Cecil http://www.qsl.net/w5dxp

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2938. Re: zepp antenna matchinig method

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:31:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc20c8_2@spool9-west.superfeed.net>
Source record: 73203

larry wrote:
> I am looking for a schematic diagram of a zepp antenna, including the 1/4
> matching line and and matchiing method of 50 ohm coax cable...

Larry, the Zepp was *never* designed to match 50 ohms. It was
designed to be used with tube final rigs which contained
built-in antenna tuners of one sort or another. Moral: A Zepp,
when used with 50 ohm transmitter, is going to require an
antenna tuner unless you are extremely lucky on one frequency.
--
73, Cecil http://www.qsl.net/w5dxp

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2939. Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:31:57 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <hdVCe.501$9D1.19@newssvr25.news.prodigy.net>
Source record: 73204

At the OKC hamfest I got a piece of neat looking coax that is double
shielded with silver braid, with a sort of clear pink outer cover. It has
connectors so I don't know the thickness of the center conductor.
It's stamped with the following characters:
68999, AA-2831. 81205, 204-15578-1, AUGUST 1996

I asked the seller, an ex-Boeing employee about it and he said it's the same
kind as used in Air Force One. He couldn't recall the specs but said it was
Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.

Can anyone tell me more or point me to a site?
tnx
--

73
Hank WD5JFR

I've tried to find the specs but get only one hit googling::
http://www.waea.org/tech/techdocs/SatSpec0798V1.doc

This site kind of confirms what the seller said.

2940. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:32:20 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1121722340.228348.223760@z14g2000cwz.googlegroups.com>
Source record: 73205

Or you could pay 175 for the Original made by the original Designer.
Why should it be 240-350 when 175 will do ?

2941. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:35:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc219c$1_2@spool9-west.superfeed.net>
Source record: 73206

Richard Clark wrote:
> It comes as no great surprise that this simple example of optical
> power is so powerfully baffling to a neophyte.

Who said it is baffling? The problem is that if you cannot understand
the simplest of examples involving lossless, refractionless, laser
systems, you cannot possibly understand anything more complicated.
I haven't even read past your inability to understand that simple
example.
--
73, Cecil http://www.qsl.net/w5dxp

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2942. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:40:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc22da$1_2@spool9-west.superfeed.net>
Source record: 73207

Richard Harrison wrote:
> When the source end of a transmission line is effectively a short or
> open circuit, ir re-reflects the reflected wave.

Yep, which is exactly what happens with W7EL's "Food For Thought #1".
The fact that Roy didn't choose to mention the 2.828 amps of current
flowing in the middle that 1/2WL of transmission line is interesting.
--
73, Cecil http://www.qsl.net/w5dxp

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2943. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:46:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc243b$1_2@spool9-west.superfeed.net>
Source record: 73208

Jim Kelley wrote:

> Richard Harrison wrote:
>> When the source end of a transmission line is effectively a short or
>> open circuit, ir re-reflects the reflected wave.
>
> Are we then supposed to infer that it [the source] doesn't re-reflect
> the wave if anything other than a short or open circuit appears there?

To that list of two, we can add two more. If the source end of a
transmission line is terminated in a pure reactance, it re-reflects
the reflected wave.

When 100% wave cancellation of reflected waves occurs at the source
due to total destructive interference, it re-reflects the reflected
wave energy components as constructive interference energy in the
opposite direction. Anything else would violate the conservation
of energy principle.
--
73, Cecil http://www.qsl.net/w5dxp

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2944. Re: QUESTION: Roach/Squid Pole Antenna for 10, 20 and 40m?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 21:52:00 UTC
From: dplatt@radagast.org
Message-ID: <11do940opkhk648@corp.supernews.com>
Source record: 73209

In article <1121721943.632950.150070@z14g2000cwz.googlegroups.com>,
<Timothy@tholtom.freeserve.co.uk> wrote:

Might I ask a favor? If you're going to post using an email address
which doesn't exist, could you please use one which *obviously*
doesn't exist (e.g. one ending in the .INVALID pseudo-domain, or in
EXAMPLE.COM)? It's a bit frustrating to write you a reply and then
have it immediately bounce back in my face :-(

>I am now the proud owner of a 8m collapsable carbon fiber roach fishing
>pole.
>
>I live on the 9th floor the (top floor) of an appartment block. I have
>a hemi-eliptical balcony, about 3-4 meters across, I have a steel
>balcony railing streching around enclosing it. There is a steel drain
>dipe running through one corner of the balcony. I have unlimited
>height (blue sky). I thought of lashing (or using sterling hose
>clips) to secure the first section of the roach pole to the one corner
>of the balcony, then I thought of using the top of the fishing rod to
>suspend one end of a trapped dipole or G5RV(?) antenna, and fixing the
>other via an insulator to an eye hook in the wall...
>
>Only problem is the pole might be struggling to support the weight of
>the trapped dipole.....(?)
>
>With the above features, what would be the optimum 10, 20 and 40m
>solution given the space I have, roach pole (supports limited weight),
>drain pipe (good ground??), balcony etc...

Hmmm. I can't say "optimum" but I think you'd be able to get some
very usable performance out of a system in which you use the balcony
railing as a support and ground/counterpoise, mount a support and
insulator of some sort at one end of the railing which holds the
fishing pole outwards at an angle of about 45 degrees, run a wire up
the pole as your radiating element, and use some sort of
tuner/matching system at the support/insulator point to tune the
system.

8 meters of wire as a radiator is more than you need for a
quarter-wave on 20 meters - you'd actually get a bit of gain out of
it. It's not quite 1/4 wave on 40 meters, but it's probably close
enough that a halfway decent tuner (or the addition of a small loading
coil) at the base could give you a good match on 40 meters as well.

Hooking up the railing to the drain pipe (if not already connected)
might increase the efficiency of the ground/counterpoise system.

However, it might also increase the risk of RF going where you don't want it, and creating shock, burn, or TVI risks for other residents of your building. There can also be problems where drainpipe segments meet... if the junction is corroded or is just force-fitted together, the metal-to-metal junction can act as a rectifier and create lots of harmonics and other RF nasties.

Take a look at The St. Louis Vertical QRP antenna project:
http://www.amqrp.org/projects/stluisvert/STLV%20Project.html

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2945. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:05:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc28c0$1_1@spool9-west.superfeed.net>
Source record: 73210

Jim Kelley wrote:

> Cecil Moore wrote:
>> Measuring the current at the mid-point of that
>> 1/2WL of feedline will prove the feedline is filled with
>> EM wave energy which must travel at the speed of light.
>
> So it follows that measuring voltage at the wall outlet proves there's
> energy filling the wall. As always, it's important to remember that any
> such energy would of course be traveling at the speed of light - and no
> faster. :-)

There are thousands of unterminated wall outlets and hundreds of
terminated wall outlets spaced only a fraction of a wavelength from
each other. By all means, if you cannot understand the simplest of
examples, create an example that is so complicated that nobody can
understand. This is an example of someone trying to obfuscate things
in order to reduce everyone down to his/her low level of understanding.

> Noting of course that EM energy can't normally put itself back into the
> source after it's done bouncing around. So, since there's no load and
> the system is lossless, no energy is produced or transferred, which
> means zero power.

Zero *NET* power has nothing to do with the component powers. All it means
is that the forward power and reflected power are equal. The losses in
a real world transmission line depend upon the magnitude of the forward
and reflected powers which pretty much shoots your illogical argument in
the foot.

The higher the voltage applied to a real-world 1/2WL transmission line,
the greater the losses absorbed by the feedline. How the heck do you
explain that one by neglecting forward and reflected energy?
--
73, Cecil http://www.qsl.net/w5dxp

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2946. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:41:38 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbhb7h$43h$1@news.service.uci.edu>
Source record: 73214

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Richard Harrison wrote:
>>
>>> When the source end of a transmission line is effectively a short or
>>> open circuit, ir re-reflects the reflected wave.
>>
>>
>> Are we then supposed to infer that it [the source] doesn't re-reflect
>> the wave if anything other than a short or open circuit appears there?
>
>
> To that list of two, we can add two more. If the source end of a
> transmission line is terminated in a pure reactance, it re-reflects
> the reflected wave.
>
> When 100% wave cancellation of reflected waves occurs at the source
> due to total destructive interference, it re-reflects the reflected
> wave energy components as constructive interference energy in the
> opposite direction. Anything else would violate the conservation
> of energy principle.

In other words a system in which all of the power from the source
reaches the load and none is reflected back to the source without first
reflecting then re-reflecting would violate conservation of energy.

It's like saying a ball violates conservation of energy if it rolls down
hill without first passing through a Rube Goldberg contraption.

jeez, ac6xg

2947. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:42:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc316a$1_1@spool9-west.superfeed.net>
Source record: 73211

Jim Kelley wrote:
> Interesting to note that the interference phenomenon is often described
> as a redistribution, but is never described in any reference as a
> reflection, or re-reflection as you have done.

That's easy to understand in the context of light which can take a
vector in any direction in 3D space. However, a transmission line
is essentially an one-dimensional world. If something happens and
it doesn't happen in one direction, there is only one other direction
available. In other words, a redistribution of energy in a transmission
line is, by definition, a reflection (or re-reflection). If things
continue on in the original direction, it is not a redistribution. If it
is a redistribution, it must change direction by 180 degrees. That's so
simple a concept even you should be able to understand :-) but you
obviously haven't admitted such so far.

> It doesn't, contrary to your assertion, first go in
> the reflected direction, say oooops, then turn around in mid-air and go
> in the other direction.

I never said it did, Jim. That is at worst a straw man on your
part or at least an extreme lack of understanding of what I said.
Because of your semantic objection, I changed interference events
from happening on either side of the match point to happening *AT*
the dimisionless match point in my article. In my article, everything
happens *AT* the match point, NOT on either side of the match point.

> The reflection is prevented. Comprende senor?

Yes, I agree 100% and always have. The reflection is prevented by
wave cancellation of two reflected waves. We have been over this
item a hundred times and you still think your straw men will work?
Instead of introducing every diversion known to man, why don't you
just discuss the technical details? We agree 100% except for the most
minute of details and you have been aware of that for months now. You
have even said that in private emails to me.

> The Bird wattmeter can be misleading in this regard. It measures the
> effect of a field (sometimes like the one in Born and Wolf that doesn't
> have transfer of energy associated with it), and in every case assumes
> energy and power. But it's simple minded so it has an excuse.

It certainly depends on your definition of power. Yours is not the same
as the IEEE Dictionary so you have an excuse. That excuse is obviously:
"Physicists are superior to engineers in every way and are allowed special
sacred cow privileges when defining words!" :-) Engineering power does NOT

require that it be dissipated, it only requires that energy be flowing.
Joules/Sec flowing past a point satisfies the definition of power as
defined by the IEEE. The Bird Wattmeter measures IEEE power.
--
73, Cecil http://www.qsl.net/w5dxp

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2948. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:46:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc3241$1_1@spool9-west.superfeed.net>
Source record: 73212

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Most of your past objections are personal opinions
>
> Curious how you flail at these imaginary demons and blow off his
> actual quote from your source negating your premise.

Curious how you delete "his actual quote ... negating my premises".
--
73, Cecil http://www.qsl.net/w5dxp

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2949. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:48:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc32cb$1_1@spool9-west.superfeed.net>
Source record: 73213

Jim Kelley wrote:
> And isn't it true that if there were actually a real hard short or a
> complete open circuit at the source, there wouldn't even be a signal on
> the transmission line?

Yep, that's why one cannot use circuit analysis on distributed
network problems.
--
73, Cecil http://www.qsl.net/w5dxp

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2950. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:55:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f9cod11aeg8348i75gnmqkg6t2eih7s10o@4ax.com>
Source record: 73215

On Mon, 18 Jul 2005 16:35:16 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>The problem is that if you cannot understand
>the simplest of examples involving lossless, refractionless, laser
>systems, you cannot possibly understand anything more complicated.

Um, yes. Can tell us why your example exhibits a reflection product
TEN TIMES BRIGHTER THAN THE SUN; when in your words it has canceled
completely? :-)

This question, like others, is likely to suffer the fate of you
whining on about "understanding." Go ahead anyway, it establishes you
as an academy of one - just don't chew the scenery.

2951. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 22:56:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dc3488$1_2@spool9-west.superfeed.net>
Source record: 73216

Jim Kelley wrote:
> In other words a system in which all of the power from the source
> reaches the load and none is reflected back to the source without first
> reflecting then re-reflecting would violate conservation of energy.

Everything I said is 100% consistant with the laws of physics.
Your "in other words" statements violate the laws of physics.
Every "in other words" statement that you have ever made, Jim,
has been 100% incorrect. Maybe you should try to understand
the concept before offering an "in other words" statement?
--
73, Cecil http://www.qsl.net/w5dxp

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2952. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-18 23:02:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tqcod1lugtpo789qm9fbast2u3mcqfmk9u@4ax.com>
Source record: 73217

On Mon, 18 Jul 2005 16:25:56 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
> it makes no sense to complicate things with additional details
They are your details and you can't do the math. You instead beg it
doesn't make sense to? Certainly not from the perspective of your
theories. ;-)

2953. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 00:14:41 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a2098$42dc4601$97d55ac3$13693@ALLTEL.NET>
Source record: 73218

There are 10 types of people, those that understand binary and those that don't...

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:hg6od154fh6ivg6d7ploqq9t3t07vtfhcu@4ax.com...
> On Mon, 18 Jul 2005 16:53:37 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >11001000 nW
> >
>
> Hi Fred,
>
> Well, actually 11011100 nW, but as you are within 1010% you have
> certainly come closer than any other binary engineer. ;-)
>
> 73's
> Richard Clark, KB7QHC

2954. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 00:21:04 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <12587$42dc4787$97d55ac3$13936@ALLTEL.NET>
Source record: 73219

Given that logic, I assume you drive a model T.

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
> Or you could pay 175 for the Original made by the original Designer.
> Why should it be 240-350 when 175 will do ?
>

2955. What is the MFJ magic circle ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 00:31:04 UTC
From: Bjay <ben.bensweb@virgin.net>
Message-ID: <cRXCe.3050$Wi3.1239@newsfe5-gui.ntli.net>
Source record: 73220

I have tried to find detailed information about the MFJ-935 or 936 Loop Tuner but so far it has remained a mystery.

No one seems to know what is inside the box, this is surely out of character with the Ham Radio hobby, unless maybe things have changed so much that we now accept any black box without question.

If you have dared to peak inside a magic circle box please tell

Thanks

2956. small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 01:09:02 UTC
From: squeege boy <none@personainternet.com>
Message-ID: <4lkod157rpimgd23vspi0jp0sradpce3rs@4ax.com>
Source record: 73221

I am livign in an apartment, so I cant transmit (no towers and what not) so I am looking for what would suit my needs best for HF and shortwave recption in general

I have googled a bit and havent found much in the way of easy to build or easy to obtain parts to build antennas

any help would be really appreciated
cheers

2957. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 01:46:15 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <cvednbVy8tLOxkHfRVn-rw@comcast.com>
Source record: 73222

Fred W4JLE wrote:
> Given that logic, I assume you drive a model T.
>
> "Rick Scott" <RickN7HJ@gmail.com> wrote in message
> news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
>
>>Or you could pay 175 for the Original made by the original Designer.
>>Why should it be 240-350 when 175 will do ?

No, But your own argument is that you shouldnt pay 5-700 dollars for
somthing that yours does the same for 240-350.

So using your argument, why pay 240-350 for somthing that the Original
does for 175 ????

2958. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 02:10:35 UTC
From: richardharrison@webtv.net
Message-ID: <10767-42DC611B-529@storefull-3253.bay.webtv.net>
Source record: 73224

Ham Op wrote:
"Physical damage is generally caused by direct strikes."

Lightning can produce awsome distruction from its millions of volts and thousands of amps. Stories about it are informative, amusing, and abundant.

Damage is mostly avoidable. High towers are nearly certain to be struck repeatedly in passing thunderstotms. I`ve worked in medium wave broadcasting, Short wave broadcasting, land-mobile radio, aircraft radio, and microwave relay systems aplenty. I worked decades with a worldwide corporation that had towers across the U.S.A. and several other countries in the world. That corporation had its many towers fitted with inverted Copperweld ground rods at the top to serve as lightning rods to take most of the hits the towers received. At their bottoms, the towers` lightning energy was shunted off to the earth through ground rods driven into the soil around the towers. It worked. There was no vaporized coax, tower lighting wires, or anything else.

We had to operate perpetually. We couldn`t pull the switch and throw the coax out the window, even if someone were on hand to do so.

Evidence of lightnong strikes were the small pits it made in the lightning rods.

Best regards, Richard Harrison, KB5WZI

2959. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 02:22:04 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1d4d7$42dc6616$97d55ac3$18908@ALLTEL.NET>
Source record: 73075

Rick the original has limited power handling capability, a small diameter coil and no posititioning circuitry or automatic control. Compare it for example with the offering from http://thescrewdriver.com Compare the specs of some of the offerings of other vendors as well.

While I agree that some out there are junk, a number have made improvements in construction, control, and power handling capabilities.

Or you can do as I have done and build your own. Assuming you have a friend that has a lathe to cut the grooves in your core material, your willing to rework a screwdriver motor, find a couple of friends to build one with you, it can be built for about $70.00.
.
If you do it by yourself, be prepared to buy a 12 foot length of copper vent pipe and not use 8 feet of it. Minimum orders for phospher bronze finger stock, and a minimum of 12 mailing tubes and covers of which you will use one of each. Then you are talking about $130.00 for materials not counting the PVC, matching coil, control box, capacitors, and mounting hardware.

Had I not been involved with a bunch of great guys over by North Augusta, I doubt I would have built one myself.

"Rick Scott" <rickn7hj@gmail.com> wrote in message
news:cvednbVy8tLOxkHfRVn-rw@comcast.com...
> Fred W4JLE wrote:
> > Given that logic, I assume you drive a model T.
> >
> > "Rick Scott" <RickN7HJ@gmail.com> wrote in message
> > news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
> >
> >>Or you could pay 175 for the Original made by the original Designer.
> >>Why should it be 240-350 when 175 will do ?
>
> No, But your own argument is that you shouldnt pay 5-700 dollars for
> somthing that yours does the same for 240-350.
>
> So using your argument, why pay 240-350 for somthing that the Original
> does for 175 ????

2960. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 02:23:41 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <NuZCe.184$Uk3.38@newsread1.news.pas.earthlink.net>
Source record: 73223

Hi Rick,

Why so argumentative?

As far as I'm concerned, the more good ol' boys we have making
different antennas, the more choices we'll have. Do you think
choice is a bad thing? If someone else's antenna offers better
value than the poster (in your opinion), then buy someone else's
antenna. That's how the free market works. 8-)

Ed

"Rick Scott" <rickn7hj@gmail.com> wrote in message
news:cvednbVy8tLOxkHfRVn-rw@comcast.com...
> Fred W4JLE wrote:
> > Given that logic, I assume you drive a model T.
> >
> > "Rick Scott" <RickN7HJ@gmail.com> wrote in message
> > news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
> >
> >>Or you could pay 175 for the Original made by the original Designer.
> >>Why should it be 240-350 when 175 will do ?
>
> No, But your own argument is that you shouldnt pay 5-700 dollars for
> somthing that yours does the same for 240-350.
>
> So using your argument, why pay 240-350 for somthing that the Original
> does for 175 ????

2961. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 02:35:46 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <vfpod1pkrrnsjkb9je7l213ispo5r9dcac@4ax.com>
Source record: 73076

On Mon, 18 Jul 2005 18:46:15 -0700, Rick Scott <rickn7hj@gmail.com>
wrote:

>Fred W4JLE wrote:
>> Given that logic, I assume you drive a model T.
>>
>> "Rick Scott" <RickN7HJ@gmail.com> wrote in message
>> news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
>>
>>>Or you could pay 175 for the Original made by the original Designer.
>>>Why should it be 240-350 when 175 will do ?
>
>No, But your own argument is that you shouldnt pay 5-700 dollars for
>somthing that yours does the same for 240-350.
>
>So using your argument, why pay 240-350 for somthing that the Original
>does for 175 ????

Maybe you should ask Rummy why he's paying $100,000+ for Hummers when
the Original, the Jeep, runs about $16,000.

bob
k5qwg

2962. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 02:38:05 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <hIZCe.592$0C.67@newsread3.news.pas.earthlink.net>
Source record: 73077

Hi Squeege,

Check out the Sony AN-LP1. It works very well, and I don't
think you can beat it at the size. It's particularly nice with
Sony's budget HF receiver, the ICF-SW7600GR. Just stick
the suction cup on your apartment window, and you're in
business.

Ed

"squeege boy" <none@personainternet.com> wrote in message
news:4lkod157rpimgd23vspi0jp0sradpce3rs@4ax.com...
> I am livign in an apartment, so I cant transmit (no towers and what
> not) so I am looking for what would suit my needs best for HF and
> shortwave recption in general
>
> I have googled a bit and havent found much in the way of easy to build
> or easy to obtain parts to build antennas
>
> any help would be really appreciated
> cheers

2963. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 02:42:15 UTC
From: Jerseyj <jerseyj69@comcast.net>
Message-ID: <jerseyj69-70EB34.22421518072005@comcast.dca.giganews.com>
Source record: 73078

I understand the concept, but if I have a wire antena , going to ladder line, the trasitioning to coax, all outside, with the coax finally snaking into the house and hooking up to the antenna tuner...

Where would I put grounds, how would I attach them, etc...???

I'm having trouble visualizing doing this grounding without it affecting the antena performance.

Jerry

(who was generalizing when talking about house damage, but was really just looking for help with ideas for grounding and thank you all who have responded)

In article <10767-42DC611B-529@storefull-3253.bay.webtv.net>, richardharrison@webtv.net (Richard Harrison) wrote:

> Ham Op wrote:
> "Physical damage is generally caused by direct strikes."
>
> Lightning can produce awsome distruction from its millions of volts and
> thousands of amps. Stories about it are informative, amusing, and
> abundant.
>
> Damage is mostly avoidable. High towers are nearly certain to be struck
> repeatedly in passing thunderstotms. I`ve worked in medium wave
> broadcasting, Short wave broadcasting, land-mobile radio, aircraft
> radio, and microwave relay systems aplenty. I worked decades with a
> worldwide corporation that had towers across the U.S.A. and several
> other countries in the world. That corporation had its many towers
> fitted with inverted Copperweld ground rods at the top to serve as
> lightning rods to take most of the hits the towers received. At their
> bottoms, the towers` lightning energy was shunted off to the earth
> through ground rods driven into the soil around the towers. It worked.
> There was no vaporized coax, tower lighting wires, or anything else.
>
> We had to operate perpetually. We couldn`t pull the switch and throw the
> coax out the window, even if someone were on hand to do so.
>
> Evidence of lightnong strikes were the small pits it made in the
> lightning rods.
>
> Best regards, Richard Harrison, KB5WZI
>

2964. Re: zepp antenna matchinig method

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:02:36 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42dc6c53.20752430@news.crosslink.net>
Source record: 73079

On Mon, 18 Jul 2005 02:05:56 GMT, W9DMK<nobody@crosslink.net> (Robert
Lay) wrote:

>On Sun, 17 Jul 2005 19:54:10 -0400, "larry" <larya@rogers.com> wrote:
>
>>Greetings
>>
>>I am looking for a schematic diagram of a zepp antenna, including the 1/4
>>matching line and and matchiing method of 50 ohm coax cable...
>>
>>Are there any website which would show this?...
>>
>>Larry ve3fxq
>>
>>
>
>Dear Larry,
>
>There's nothing to show - it's too simple for a picture. You just take
>a 1/2 wavelength of horizontal antenna and you end-feed it from one
>side of a piece of balanced line 1/4 wavelength long. You then link
>couple that to the final tank coil and do your matching with the
>swinging link and the tank circuit. No equations, no schematics or
>pictures - just do it!
>
>
>Bob, W9DMK, Dahlgren, VA

Perhaps, to do it justice, I should explain that my one and only
experience with a Zepp antenna was in a situation in which the 1/4
wave balanced line section was open wire feeders with about 6" spacing
and the transmitter used a pair of plate modulated, push pull 10's as
the final - link coupled, as I already mentioned. In those days no one
had a clue as to load impedances or conjugate matching. We had an RF
ammeter in the transmission line and we tuned everything for maximum
reading on that meter. Those were the days.

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2965. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:05:57 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <PrSdnaJBt_Cc80HfRVn-qg@comcast.com>
Source record: 73081

Fred W4JLE wrote:
Not to "knock" the name brands in HF mobile, but have you ever wondered
why
they cost so much--up to 700 bucks for a screwdriver all-band mobile
antenna? I do because I couln't AFFORD to pay 5-7 hundred bucks for
a mobile HF antenna! And it's not the performance you are paying for; it's
fancy paint jobs and "consumer" gimmickry that run the price up

This was your original ... Im not Knocking yours. I only POSTED exactly
what you did yet you took exception. WHY?

I cannot afford 5-7 for those nor can I pay 250-350.

But 175 is more reasonable

Why do you Knock MY choice when your advertising YOUR choice. I was
mearly Pointing out

> Or you could pay 175 for the Original made by the original Designer.
> Why should it be 240-350 when 175 will do ?

I pointed out you could pay 175 instead of 240-350. Then you go on
in your second to tell me I should go and build one myself go buy the
stock and YADA YADA. WHY, what does that serve to tell me. Im shopping,
Do you as a sales person who actually is comparing prices for products
tell me to go build my own. Would a car dealer ???

I dont see why your so defensive. If you have a good product people
will buy it. Some wont, but to tell me IM wrong for comparing is wrong.

I run 100 watts, always have always will, so what does it do for me to
have these bigger coils etc. Hell I run Iron Horse whips and can run
with a lot of screwdrivers because of the way I install and run them.
Many swear Im running a Screwdriver already. So what.

Im looking for a single antenna that does what a screwdriver does.

You posted, I posted an alternate and now your up in arms.

How about if I get all the other MFGs in here to get all up in arms with
your posting because your saying they are too costly.

2966. Re: What is the MFJ magic circle ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:06:11 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42dc6d72.21038892@news.crosslink.net>
Source record: 73080

On Tue, 19 Jul 2005 00:31:04 GMT, "Bjay" <ben.bensweb@virgin.net>
wrote:

>I have tried to find detailed information about the MFJ-935 or 936 Loop
>Tuner but so far it has remained a mystery.
>
>No one seems to know what is inside the box, this is surely out of character
>with the Ham Radio hobby, unless maybe things have changed so much that we
>now accept any black box without question.
>
>If you have dared to peak inside a magic circle box please tell

I have a Cushcraft R-7, which I got by trading in an R-7000 (long
story). It has a black box about 8" x 6" x 2" that is the matching
network, etc., into which the 50 ohm coax from the transceiver plugs.
I opened it up once and had a good look around. I closed it back up
and have never given it another thought.

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

2967. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:06:26 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <PrSdnd1Bt_CA80HfRVn-qg@comcast.com>
Source record: 73082

> Maybe you should ask Rummy why he's paying $100,000+ for Hummers when
> the Original, the Jeep, runs about $16,000.
>
> bob
> k5qwg

Id like to know that myself?

2968. Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:20:18 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <7eGdnbOfidfv7EHfRVn-ig@adelphia.com>
Source record: 73083

Hooking up a wire antenna to my shack. Using one wire with counterpoise. What length do i need for the wire in the trees for 10-40 meter?

Thanks

--

Bill
KI4HPZ

2969. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:22:37 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <guSdncI2ethh7EHfRVn-rQ@adelphia.com>
Source record: 73084

I will be using the zm-2 tuner with a ft-817...

T

--

Bill
KI4HPZ

"Jennie" <hnix@adelphia.net> wrote in message news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com...
Hooking up a wire antenna to my shack. Using one wire with counterpoise. What length do i need for the wire in the trees for 10-40 meter?

Thanks

--

Bill
KI4HPZ

2970. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:23:35 UTC
From: richardharrison@webtv.net
Message-ID: <985-42DC7237-196@storefull-3252.bay.webtv.net>
Source record: 73085

Jim Kelley wrote:
"In other words a system in which all of the power from the source reaches the load and none is reflected back to the source without first reflecting then re-reflecting would violate conservation of energy."

Conservation of energy means that energy is neither created nor destroyed, but that heat and other forms of energy are quantitifiable and convertable in their equivalence. The total amount of mechanical, thermal, chemical, electrical, and other forms of energy in any isolated system remains constant. A century ago, Einstein broadened the law to include equivalence of mass and energy.

Regardless of reflections and re-reflections, all the energy sourced into a transmission line ends up in the load if it isn`t lost in transmission by radiation or conversion into heat. There`s no place else for it to go.

Best regards, Richard Harrison, KB5WZI

2971. Re: zepp antenna matchinig method

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:49:41 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <11dou47rlt94e2f@corp.supernews.com>
Source record: 73086

There is no problem matching up a zep for a modern transciever.
Think of it as a J-pole with the long end bent over horizontally.
Short the bottom of the quarter wavelength section, and find a point
above that to match to 50 Ohms as seen on an antenna analyzer or bridge.

Should be easy.

larry wrote:

> Greetings
>
> I am looking for a schematic diagram of a zepp antenna, including the 1/4
> matching line and and matchiing method of 50 ohm coax cable...
>
> Are there any website which would show this?...
>
> Larry ve3fxq
>
>

2972. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 03:52:41 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <fLednXxIKb-V5EHfRVn-1g@adelphia.com>
Source record: 73087

This is basically what i am trying to do for 10-40 meter at
http://www.g3ycc.karoo.net/w3edp.htm

My zm-2 will act as the cap circuit....

--

Bill
KI4HPZ

"Jennie" <hnix@adelphia.net> wrote in message news:guSdncI2ethh7EHfRVn-rQ@adelphia.com...
I will be using the zm-2 tuner with a ft-817...

T

--

Bill
KI4HPZ

"Jennie" <hnix@adelphia.net> wrote in message news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com...
Hooking up a wire antenna to my shack. Using one wire with counterpoise. What length do i need for the wire in the trees for 10-40 meter?

Thanks

--

Bill
KI4HPZ

2973. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 04:15:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <26de$42dc7e61$97d55ac3$22442@ALLTEL.NET>
Source record: 73088

Rick you have me confused with someone else, I have never sold a screwdriver antenna in my life. Not even a used one!

"Rick Scott" <rickn7hj@gmail.com> wrote in message news:PrSdnaJBt_Cc80HfRVn-qg@comcast.com...
> Fred W4JLE wrote:
> Not to "knock" the name brands in HF mobile, but have you ever wondered
> why
> they cost so much--up to 700 bucks for a screwdriver all-band mobile
> antenna? I do because I couln't AFFORD to pay 5-7 hundred bucks for
> a mobile HF antenna! And it's not the performance you are paying for;
it's
> fancy paint jobs and "consumer" gimmickry that run the price up
>
> This was your original ... Im not Knocking yours. I only POSTED exactly
> what you did yet you took exception. WHY?
>
> I cannot afford 5-7 for those nor can I pay 250-350.
>
> But 175 is more reasonable
>
> Why do you Knock MY choice when your advertising YOUR choice. I was
> mearly Pointing out
>
> > Or you could pay 175 for the Original made by the original Designer.
> > Why should it be 240-350 when 175 will do ?
>
> I pointed out you could pay 175 instead of 240-350. Then you go on
> in your second to tell me I should go and build one myself go buy the
> stock and YADA YADA. WHY, what does that serve to tell me. Im shopping,
> Do you as a sales person who actually is comparing prices for products
> tell me to go build my own. Would a car dealer ???
>
> I dont see why your so defensive. If you have a good product people
> will buy it. Some wont, but to tell me IM wrong for comparing is wrong.
>
> I run 100 watts, always have always will, so what does it do for me to
> have these bigger coils etc. Hell I run Iron Horse whips and can run
> with a lot of screwdrivers because of the way I install and run them.
> Many swear Im running a Screwdriver already. So what.
>
> Im looking for a single antenna that does what a screwdriver does.
>
> You posted, I posted an alternate and now your up in arms.

>
> How about if I get all the other MFGs in here to get all up in arms with
> your posting because your saying they are too costly.
>
>
>

2974. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 05:36:48 UTC
From: richardharrison@webtv.net
Message-ID: <1330-42DC9170-611@storefull-3257.bay.webtv.net>
Source record: 73090

Jerry wrote:
"I`m having trouble visualizing doing this grounding without affecting antenna performance."

Shortwave radio antennas I`ve used were all made from Copperweld wire to withstand lightning and weather. Also, copper wire can stretch and fatigue. Copperweld`s steel core prevents this.

Signal Corps rhombic kits use (3) No.12 Copperweld wires twisted together to make a cable used for antenna and transmission line. A special Wihd Turbine Company insulator is included to space the line for 600-ohm impedance. These bolt atop short tower secttons used as transmission line supports. Unless military surplus is available, substitutions would be necessary. But, open-wire line is rugged and withstands the challenges.

Pick a place outside your shack to drive ground rods to serve as a ground bed for your antenna system to dump your lightning strikes to. Place the rods at about the length of your ground rods away from each other. The more rods, the better. Cost will prevent too many rods.

Interconnect all the ground rods and connect this ground system to your electric service ground system. It`s the law in most jurisdictions.

Run your open-wire line from your antenna to a point above your ground bed. You need arc-gaps between each transmission line cable and the earth. Form copper vees to make arc-gaps. The vertex of one Vee is going to face another to make a pair. Connect one Vee firectly to the earth. Connect the other of the pair directly to the transmission line cable. Do the sane for the other transmission line cable.

When the gaps are completed, adjust the space between them until they flash over from your transmitter power, then back off until they just don`t flash over. You should now be ready for lightning on the transmission line. Connect your ladder line, twin lead, coax or whatever you will use to complete the connection to your radio to your open-wire line here above your ground bed.

Isolate the radio from the powerline through a brute-force filter with MOV`s added for lightning suppression.

Audio, control, and any other wires connected to the radio also need filters with MOV`s added but the current carrying capacity of the filters can be lower than that required for the power wires in most cases. A common ground point is required for all these filters.

If you don`t use coax somewhere between your radio and antenna, you will lose some of the protection it provides. Its close internal spacing couples its conductors tightly. We found even solid-state receiver front-ends weren`t endangered by lightning because of grounded antennas and the coax. It would flash over before it let lightning through.

Best regards, Richard Harrison, KB5WZI

2975. Re: Vertical longwire? Antenna recommendation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 05:40:04 UTC
From: Elden Fenison <usenet@moondog.org>
Message-ID: <slrnddp2h2.593.usenet@macmini.moondog.org>
Source record: 73089

```
* Brian Kelly [07/18/2005 16:38 UTC]:
> You're set. Good luck.

Thanks again for all the tips. 73

--
-=Elden=-
http://www.moondog.org
```

2976. Interesting Marconi BH-30 Linear Amplifier For Sale

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 06:08:08 UTC
From: Colin Gunn <cgunn@telus.net>
Message-ID: <cN0De.137878$tt5.23122@edtnps90>
Source record: 73091
Cross-posted to: alt.ham-radio,alt.ham-radio.hf,alt.ham-radio.marketplace,alt.ham-radio.ssb,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.swap

Check out http://www3.telus.net/ve7tnt/ for a unique auto-tune 2x 300-5z linear amplifier for sale.

Ve7TNT

2977. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 06:45:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dca28e$1_1@spool9-west.superfeed.net>
Source record: 73092

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>The problem is that if you cannot understand
>>the simplest of examples involving lossless, refractionless, laser
>>systems, you cannot possibly understand anything more complicated.
>
> Um, yes. Can tell us why your example exhibits a reflection product
> TEN TIMES BRIGHTER THAN THE SUN; when in your words it has canceled
> completely? :-)

It doesn't. All reflections are eliminated by wave cancellation.
That is a given boundary condition for the simple example.

You can argue that there's no such thing in reality as a
dimensionless point or a line of only one dimension or a
plane of only two dimensions. That doesn't keep such from
being taught as concepts in every plane geometry class.
--
73, Cecil http://www.qsl.net/w5dxp

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2978. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 06:48:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dca328$1_1@spool9-west.superfeed.net>
Source record: 73093

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>it makes no sense to complicate things with additional details
>
> They are your details and you can't do the math.

No, they are your details and I choose not to waste my
time with your logical diversion of the basic issue.
--
73, Cecil http://www.qsl.net/w5dxp

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2979. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:26:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dcac2a$1_1@spool9-west.superfeed.net>
Source record: 73094

Richard Harrison wrote:
> Regardless of reflections and re-reflections, all the energy sourced
> into a transmission line ends up in the load if it isn`t lost in
> transmission by radiation or conversion into heat. There`s no place else
> for it to go.

Hi Richard, does that statement assume that all energy
dissipated as heat in the source was never sourced?
--
73, Cecil http://www.qsl.net/w5dxp

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2980. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:29:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3papd1tsaj5e144nfts6ujioi0g6t8kcpj@4ax.com>
Source record: 73095

On Tue, 19 Jul 2005 01:45:26 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>> Um, yes. Can tell us why your example exhibits a reflection product
>> TEN TIMES BRIGHTER THAN THE SUN; when in your words it has canceled
>> completely? :-)
>
>It doesn't. All reflections are eliminated by wave cancellation.
>That is a given boundary condition for the simple example.

What a larf. :-)

If you can't explain it, you simply re-write the math to suit the
outcome? This is neither demonstrable nor provable, unless, of course
you simply fudge the numbers until they agree with your result. Given
that every reader here has had the opposite experience as your
prediction, this is classic thumb on the scale work - quite shabby.

2981. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:33:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dcadb9$1_2@spool9-west.superfeed.net>
Source record: 73096

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>it makes no sense to complicate things with additional details
>
> They are your details and you can't do the math. You instead beg it
> doesn't make sense to? Certainly not from the perspective of your
> theories. ;-)

It seems you have forgotten the purpose of the laser example.
It was supposed to be as much like a transmission line example
as is possible. Refraction is irrelevant in a transmission line
so there's no logical reason to introduce refraction into the
simple laser example. A laser was chosen to make the example
single frequency and coherent like an RF source. Occam's Razor
is used to trim off all irrelevant stuff.
--
73, Cecil http://www.qsl.net/w5dxp

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2982. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:37:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tvapd152fvau10avb4cif0m5vcm1hd994s@4ax.com>
Source record: 73097

On Tue, 19 Jul 2005 01:48:00 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>No, they are your details
All the math was per your explicit design. If that embarrasses you,
fine, I will accept that as "my" details.

> and I choose not to waste my
>time with your logical diversion of the basic issue.
No one is forcing you to explain what you cannot. What you choose to
respond to is strictly your choice and wholly your responsibility. If
you don't care to answer for why the reflections of your model are
TEN TIMES BRIGHTER THAN THE SUN, and call this power cancellation
instead, no one really expects you to anyway.

Why don't you give us another hymn instead about understanding and
such? Is your paper in the hands of a devotional publication? Do
they cater to a herd of sacred cows? Would this make you a holy
cowboy? :-)

2983. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:42:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dcafe6$1_1@spool9-west.superfeed.net>
Source record: 73098

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>>Um, yes. Can tell us why your example exhibits a reflection product
>>>TEN TIMES BRIGHTER THAN THE SUN; when in your words it has canceled
>>>completely? :-)
>>
>>It doesn't. All reflections are eliminated by wave cancellation.
>>That is a given boundary condition for the simple example.
>
> If you can't explain it, you simply re-write the math to suit the
> outcome?

The purpose of the laser example is to make it as much like a
transmission line example as possible. A Bird wattmeter indicates
that all reflections are eliminated in the T-line example so
the laser example assumes that as a boundary condition. Your
insistance on rewriting the math to make it as different from a
T-line example as possible is simply a diversion away from the
original purpose.
--
73, Cecil http://www.qsl.net/w5dxp

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2984. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:44:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pebpd11j4k7a7fouf5lq8t3460ardatee6@4ax.com>
Source record: 73099

On Tue, 19 Jul 2005 02:33:05 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>It seems you have forgotten the purpose of the laser example.
I have been reminding you of "Glare" and asking for its wavelength for
months. No, I have not forgotten, I just haven't gotten an answer is
all. Let's face it, when your xerox crutch didn't include that
detail, your dearth of experience drew a blank.

If you want, I can answer it for you - just like all the other power
questions that attended your "laser design." You see, the difference
is that I've worked with and engineered them instead of building
flip-flops (do I note a similarity in your writing style here too?).

It takes more than simply being the holy cowboy of the sacred herd.

2985. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:47:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vtbpd1pmet8mfbl9cchjufo8jfr1hblmlr@4ax.com>
Source record: 73100

On Tue, 19 Jul 2005 02:42:22 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>The purpose of the laser example is to make it as much like a
>transmission line example as possible. A Bird wattmeter indicates
>that all reflections are eliminated

Never met the class of Bird wattmeter that measures laser - and
neither have you. Get your thumb off the scale and put it where it
belongs.

2986. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 07:49:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dcb198$1_2@spool9-west.superfeed.net>
Source record: 73101

Richard Clark wrote:
> If
> you don't care to answer for why the reflections of your model are
> TEN TIMES BRIGHTER THAN THE SUN, ...

Already answered. A Bird wattmeter indicates zero reflections
in the T-line example so *ZERO* reflections are assumed as a
boundary condition in the laser example. The net reflections
are NOT ten times brighter than the sun - they are flat black,
by definition.
--
73, Cecil http://www.qsl.net/w5dxp

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2987. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 08:27:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dcba63$1_1@spool9-west.superfeed.net>
Source record: 73102

Richard Clark wrote:
> I have been reminding you of "Glare" and asking for its wavelength for
> months.

I assume you know how to calculate the wavelength of a
single-frequency coherent source like the one assumed
in the laser example. WL=c/f

>>The purpose of the laser example is to make it as much like a
>>transmission line example as possible. A Bird wattmeter indicates
>>that all reflections are eliminated in the T-line example so
>>the laser example assumes that as a boundary condition.

>Never met the class of Bird wattmeter that measures laser ...

Didn't say it did. Read it again.
--
73, Cecil http://www.qsl.net/w5dxp

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2988. Hmmmmmmmmmmmmm . . . . if a . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 09:58:49 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <t94De.29213$zY4.11683@tornado.ohiordc.rr.com>
Source record: 73103

. . . . . "transmission-line" is "improperly terminated" at *both* ends,
that is, "*not* at its surge impedance", then "anything" "sloshing" "to and
fro" inside the "transmission-line" will be affected by whatever
"termination" "anything" "sees".

Is that a good-enough working hallucination?

73, Dave, N3HE

2989. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 09:59:45 UTC
From: Thierry <->
Message-ID: <42dccf1a$1@news.vo.lu>
Source record: 73104

"squeege boy" <none@personainternet.com> wrote in message
news:4lkod157rpimgd23vspi0jp0sradpce3rs@4ax.com...
> I am livign in an apartment, so I cant transmit (no towers and what
> not) so I am looking for what would suit my needs best for HF and
> shortwave recption in general
>
> I have googled a bit and havent found much in the way of easy to build
> or easy to obtain parts to build antennas
>
> any help would be really appreciated
> cheers

Hi,

IMHO there is no miracle to work in such solution. I have the same problem, having moved in a modern appartment where I am not allowed to erect any antenna on the roof. So remain the portable solution.

In your case, for reception, why not to test an active magnetic loop antenna. They cover all the spectrum in continue
see e.g. http://www.astrosurf.org/lombry/qsl-ala1530.htm

As you are licensed I think, there are also magnetic loops for TX, see e.g. www.wimo.de
Only drawback, better to stay over 7m from the antenna due to the magnetic field generated. If you can do that, it's fine. Its performances are not better than a dipole but its is somewhat directive. That helps.

Hope this helps.

73
Thierry, ON4SKY
http://www.astrosurf.org/lombry

2990. Re: What is the MFJ magic circle ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 13:42:35 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <kj0qd1l9p1akhbj5c8vjt6v99am0kloh8t@4ax.com>
Source record: 73105

On Tue, 19 Jul 2005 00:31:04 GMT, "Bjay" <ben.bensweb@virgin.net>
wrote:

>I have tried to find detailed information about the MFJ-935 or 936 Loop
>Tuner but so far it has remained a mystery.
>
>No one seems to know what is inside the box, this is surely out of character
>with the Ham Radio hobby, unless maybe things have changed so much that we
>now accept any black box without question.
>
>If you have dared to peak inside a magic circle box please tell
>
>Thanks
>
>

The boxes contain tuners for small loop antennas. Go to the mfj site;
they show an internal picture of the 933 loop tuner. Couple of
variable caps. You might also see if you can download the manuals for
these tuners from the MFJ site -- many are available.

Or check your ARRL Antenna book for tuning circuits for small loop
antennas. No mystery.

bob
k5qwg

2991. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 14:01:30 UTC
From: Don Baker <n2mcg@comcast.net>
Message-ID: <IsqdnRQMbLMbmkDfRVn-ig@comcast.com>
Source record: 73106

Henry:
From: http://www.nrcdxas.org/articles/coax.html

The recent popularity of a new antenna cable called Skyhighgain Coax has created a safety problem for users and a nightmare for firefighters. SHGC was developed theoretically by Tricenters Experimental Laboratories, Inc. as a signal-boosting element for use in radio and television transmission lines. Scientists at TELI discovered that when a bias voltage is applied to the special material used to make SHGC the effect was incredible. Instead of simply reducing signal loss, the signal strength increased!

Amplification of RF (radio-frequency) signals in the new coaxial transmission cable was actually greater than 3 db (decibels) per meter per meter. (Read that again.)

In laymen's terms, that means that for every 10 centimeters a signal travels through the cable the signal strength doubles! Put 1 Watt of RF energy into one end of a one meter length of SHGC and you get 2 Watts at the other end (assuming you supply the bias voltage, of course). At two meters you get 4 Watts. At three meters the signal strength increases to eight Watts. Doubling the power every meter the total effective power of the signal exceeds 1,000 Watts by the time it has traveled only 10 meters up the line.

Now imagine what would happen if you had a 100-meter SHGC cable. (The actual figures are shown at the end of this article.)

In conventional transmission lines there is always some loss of signal depending upon frequency and the electric characterists of the cable. But with SHGC, instead of a loss, you get a gain in signal strength. This is the stuff every radio engineer has dreamed of.

But here's the problem. The unwary (and mathematically challanged) average user seems to think that if a short section of SHGC inserted in his transmission line is good, then a longer one is better. If one were to, say substitute SHGC for the complete run from their radio shack to the top of their tower, the signal would have more energy than the cable (or the antenna) could withstand. (The 20-meter traps on the tri-band beam that used to be on the 60-meter Rohn 25g tower behind the house in the photograph above were never found.)

Designed to be used in short sections between standard coax and the antenna, SHGC is not currently available, pending the resolution of certain limiting manufacturing capabilities. Some reports have surfaced however that a few samples of the hot-pink colored coax have somehow slipped past reality checkpoints and made their way into the Amateur (and amateur) community. And without official spec sheets and installation guides SHGC poses a

significant hazard to the uneducated.

The following table dramatically illustrates the danger of using too much Skyhighgain Coax in any transmission line.

Length of Coax / Power Output

1 meters - 2 Watts
2 meters - 4 Watts
3 meters - 8 Watts
4 meters - 16 Watts
5 meters - 32 Watts
6 meters - 64 Watts
7 meters - 128 Watts
8 meters - 256 Watts
9 meters - 512 Watts
10 meters - 1,024 Watts
11 meters - 2,048 Watts
12 meters - 4,096 Watts
13 meters - 8,192 Watts
14 meters - 16,384 Watts
15 meters - 32,768 Watts
16 meters - 65,536 Watts
17 meters - 131,072 Watts
18 meters - 262,144 Watts
19 meters - 524,288 Watts
20 meters - 1,048,576 Watts
21 meters - 2,097,152 Watts
22 meters - 4,194,304 Watts
23 meters - 8,388,608 Watts
24 meters - 16,777,216 Watts
25 meters - 33,554,432 Watts
As you can see, by the time you reach only 20 meters, the signal power has exceeded a million Watts! Assuming your facility's commercial power mains could handle the load, the signal would exceed 30 million Watts at only 25 meters from the transmitter.

Of course, most power main breakers would trip long before the million Watt level, but once the signal starts up the transmission line the peak envelope power (PEP) climbs so fast that there is a possibility that the circuit breakers would either fuse or the electric current would simply jump the breaker's open switch gap and power would continue to increase until the primary main lines evaporated in what could only be described as an artificial bolt of lightning, showering every surrounding structure in hot plasma and sparks.

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message news:hdVCe.501$9D1.19@newssvr25.news.prodigy.net...
> At the OKC hamfest I got a piece of neat looking coax that is double
> shielded with silver braid, with a sort of clear pink outer cover. It has
> connectors so I don't know the thickness of the center conductor.
> It's stamped with the following characters:

> 68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>
> I asked the seller, an ex-Boeing employee about it and he said it's the
same
> kind as used in Air Force One. He couldn't recall the specs but said it
was
> Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>
> Can anyone tell me more or point me to a site?
> tnx
> --
>
> 73
> Hank WD5JFR
>
>
> I've tried to find the specs but get only one hit googling::
> http://www.waea.org/tech/techdocs/SatSpec0798V1.doc
>
> This site kind of confirms what the seller said.
>
>
>

2992. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 14:09:25 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11dq2cl6cain28d@corp.supernews.com>
Source record: 73107

"Don Baker" <n2mcg@comcast.net> wrote in message
news:IsqdnRQMbLMbmkDfRVn-ig@comcast.com...
> Henry:
> From: http://www.nrcdxas.org/articles/coax.html
> Amplification of RF (radio-frequency) signals in the new coaxial
> transmission cable was actually greater than 3 db (decibels) per meter per
> meter. (Read that again.)

Sounds like the kind of review that'd show up in QSTs April Issue.(G)

Harold
KD5SAK

2993. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 14:18:47 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <bZ7De.574$9D1.51@newssvr25.news.prodigy.net>
Source record: 73108

Don
It's not April 1. Must be nice to have so much free time on your hands.
--

73
Hank WD5JFR

"Don Baker" <n2mcg@comcast.net> wrote in message
news:IsqdnRQMbLMbmkDfRVn-ig@comcast.com...
> Henry:
> From: http://www.nrcdxas.org/articles/coax.html
>
> The recent popularity of a new antenna cable called Skyhighgain Coax has
> created a safety problem for users and a nightmare for firefighters. SHGC
> was developed theoretically by Tricenters Experimental Laboratories, Inc.
> as
> a signal-boosting element for use in radio and television transmission
> lines. Scientists at TELI discovered that when a bias voltage is applied
> to
> the special material used to make SHGC the effect was incredible. Instead
> of
> simply reducing signal loss, the signal strength increased!
>
> Amplification of RF (radio-frequency) signals in the new coaxial
> transmission cable was actually greater than 3 db (decibels) per meter per
> meter. (Read that again.)
>
> In laymen's terms, that means that for every 10 centimeters a signal
> travels
> through the cable the signal strength doubles! Put 1 Watt of RF energy
> into
> one end of a one meter length of SHGC and you get 2 Watts at the other end
> (assuming you supply the bias voltage, of course). At two meters you get 4
> Watts. At three meters the signal strength increases to eight Watts.
> Doubling the power every meter the total effective power of the signal
> exceeds 1,000 Watts by the time it has traveled only 10 meters up the
> line.
>
> Now imagine what would happen if you had a 100-meter SHGC cable. (The
> actual
> figures are shown at the end of this article.)
>
> In conventional transmission lines there is always some loss of signal
> depending upon frequency and the electric characterists of the cable. But
> with SHGC, instead of a loss, you get a gain in signal strength. This is

> the
> stuff every radio engineer has dreamed of.
>
> But here's the problem. The unwary (and mathematically challanged) average
> user seems to think that if a short section of SHGC inserted in his
> transmission line is good, then a longer one is better. If one were to,
> say
> substitute SHGC for the complete run from their radio shack to the top of
> their tower, the signal would have more energy than the cable (or the
> antenna) could withstand. (The 20-meter traps on the tri-band beam that
> used
> to be on the 60-meter Rohn 25g tower behind the house in the photograph
> above were never found.)
>
> Designed to be used in short sections between standard coax and the
> antenna,
> SHGC is not currently available, pending the resolution of certain
> limiting
> manufacturing capabilities. Some reports have surfaced however that a few
> samples of the hot-pink colored coax have somehow slipped past reality
> checkpoints and made their way into the Amateur (and amateur) community.
> And
> without official spec sheets and installation guides SHGC poses a
> significant hazard to the uneducated.
>
> The following table dramatically illustrates the danger of using too much
> Skyhighgain Coax in any transmission line.
>
> Length of Coax / Power Output
>
> 1 meters - 2 Watts
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> 6 meters - 64 Watts
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> 8 meters - 256 Watts
> 9 meters - 512 Watts
> 10 meters - 1,024 Watts
> 11 meters - 2,048 Watts
> 12 meters - 4,096 Watts
> 13 meters - 8,192 Watts
> 14 meters - 16,384 Watts
> 15 meters - 32,768 Watts
> 16 meters - 65,536 Watts
> 17 meters - 131,072 Watts
> 18 meters - 262,144 Watts
> 19 meters - 524,288 Watts
> 20 meters - 1,048,576 Watts

> 21 meters - 2,097,152 Watts
> 22 meters - 4,194,304 Watts
> 23 meters - 8,388,608 Watts
> 24 meters - 16,777,216 Watts
> 25 meters - 33,554,432 Watts
> As you can see, by the time you reach only 20 meters, the signal power has
> exceeded a million Watts! Assuming your facility's commercial power mains
> could handle the load, the signal would exceed 30 million Watts at only 25
> meters from the transmitter.
>
> Of course, most power main breakers would trip long before the million
> Watt
> level, but once the signal starts up the transmission line the peak
> envelope
> power (PEP) climbs so fast that there is a possibility that the circuit
> breakers would either fuse or the electric current would simply jump the
> breaker's open switch gap and power would continue to increase until the
> primary main lines evaporated in what could only be described as an
> artificial bolt of lightning, showering every surrounding structure in hot
> plasma and sparks.
>
>
> "Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
> news:hdVCe.501$9D1.19@newssvr25.news.prodigy.net...
>> At the OKC hamfest I got a piece of neat looking coax that is double
>> shielded with silver braid, with a sort of clear pink outer cover. It
>> has
>> connectors so I don't know the thickness of the center conductor.
>> It's stamped with the following characters:
>> 68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>>
>> I asked the seller, an ex-Boeing employee about it and he said it's the
> same
>> kind as used in Air Force One. He couldn't recall the specs but said it
> was
>> Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>>
>> Can anyone tell me more or point me to a site?
>> tnx
>> --
>>
>> 73
>> Hank WD5JFR
>>
>>
>> I've tried to find the specs but get only one hit googling::
>> http://www.waea.org/tech/techdocs/SatSpec0798V1.doc
>>
>> This site kind of confirms what the seller said.
>>

>>
>>
>
>

2994. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 14:41:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <444qd1h657spv8eviest458n27ha2j6knj@4ax.com>
Source record: 73109

On Tue, 19 Jul 2005 02:49:35 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> If you don't care to answer for why the reflections of your model are
>> TEN TIMES BRIGHTER THAN THE SUN, ...
>
>they are flat black, by definition.
I GET IT ! A new definition of black. You are indeed the Holy Cowboy
of the blind Sacred Longhorn. ;-)

2995. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 14:57:58 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1121785078.610331.254970@o13g2000cwo.googlegroups.com>
Source record: 73110

Sorry hit the wrong reply too button :).

2996. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 15:41:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dd206d$1_2@spool9-west.superfeed.net>
Source record: 73111

Richard Clark wrote:
> You are indeed the Holy Cowboy of the blind Sacred Longhorn. ;-)

No Sacred Longhorns around here. Texas Aggies barbeque
longhorns at every (few and far between) opportunity.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2997. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 15:43:58 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <QPidnbFlx-GJvUDfRVn-qQ@comcast.com>
Source record: 73112

Perpetual motion again!!

Now, if this could be made to work with beer!!!! Let's see, one pint in
and a lifetime supply out. Sounds good to me.

Don Baker wrote:
> Henry:
> From: http://www.nrcdxas.org/articles/coax.html
>
> The recent popularity of a new antenna cable called Skyhighgain Coax has
> created a safety problem for users and a nightmare for firefighters. SHGC
> was developed theoretically by Tricenters Experimental Laboratories, Inc. as
> a signal-boosting element for use in radio and television transmission
> lines. Scientists at TELI discovered that when a bias voltage is applied to
> the special material used to make SHGC the effect was incredible. Instead of
> simply reducing signal loss, the signal strength increased!
>
> Amplification of RF (radio-frequency) signals in the new coaxial
> transmission cable was actually greater than 3 db (decibels) per meter per
> meter. (Read that again.)
>
> In laymen's terms, that means that for every 10 centimeters a signal travels
> through the cable the signal strength doubles! Put 1 Watt of RF energy into
> one end of a one meter length of SHGC and you get 2 Watts at the other end
> (assuming you supply the bias voltage, of course). At two meters you get 4
> Watts. At three meters the signal strength increases to eight Watts.
> Doubling the power every meter the total effective power of the signal
> exceeds 1,000 Watts by the time it has traveled only 10 meters up the line.
>
> Now imagine what would happen if you had a 100-meter SHGC cable. (The actual
> figures are shown at the end of this article.)
>
> In conventional transmission lines there is always some loss of signal
> depending upon frequency and the electric characterists of the cable. But
> with SHGC, instead of a loss, you get a gain in signal strength. This is the
> stuff every radio engineer has dreamed of.
>
> But here's the problem. The unwary (and mathematically challanged) average
> user seems to think that if a short section of SHGC inserted in his
> transmission line is good, then a longer one is better. If one were to, say
> substitute SHGC for the complete run from their radio shack to the top of
> their tower, the signal would have more energy than the cable (or the
> antenna) could withstand. (The 20-meter traps on the tri-band beam that used
> to be on the 60-meter Rohn 25g tower behind the house in the photograph
> above were never found.)

>
> Designed to be used in short sections between standard coax and the antenna,
> SHGC is not currently available, pending the resolution of certain limiting
> manufacturing capabilities. Some reports have surfaced however that a few
> samples of the hot-pink colored coax have somehow slipped past reality
> checkpoints and made their way into the Amateur (and amateur) community. And
> without official spec sheets and installation guides SHGC poses a
> significant hazard to the uneducated.
>
> The following table dramatically illustrates the danger of using too much
> Skyhighgain Coax in any transmission line.
>
> Length of Coax / Power Output
>
> 1 meters - 2 Watts
> 2 meters - 4 Watts
> 3 meters - 8 Watts
> 4 meters - 16 Watts
> 5 meters - 32 Watts
> 6 meters - 64 Watts
> 7 meters - 128 Watts
> 8 meters - 256 Watts
> 9 meters - 512 Watts
> 10 meters - 1,024 Watts
> 11 meters - 2,048 Watts
> 12 meters - 4,096 Watts
> 13 meters - 8,192 Watts
> 14 meters - 16,384 Watts
> 15 meters - 32,768 Watts
> 16 meters - 65,536 Watts
> 17 meters - 131,072 Watts
> 18 meters - 262,144 Watts
> 19 meters - 524,288 Watts
> 20 meters - 1,048,576 Watts
> 21 meters - 2,097,152 Watts
> 22 meters - 4,194,304 Watts
> 23 meters - 8,388,608 Watts
> 24 meters - 16,777,216 Watts
> 25 meters - 33,554,432 Watts
> As you can see, by the time you reach only 20 meters, the signal power has
> exceeded a million Watts! Assuming your facility's commercial power mains
> could handle the load, the signal would exceed 30 million Watts at only 25
> meters from the transmitter.
>
> Of course, most power main breakers would trip long before the million Watt
> level, but once the signal starts up the transmission line the peak envelope
> power (PEP) climbs so fast that there is a possibility that the circuit
> breakers would either fuse or the electric current would simply jump the
> breaker's open switch gap and power would continue to increase until the
> primary main lines evaporated in what could only be described as an

> artificial bolt of lightning, showering every surrounding structure in hot
> plasma and sparks.
>
>
> "Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
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>>connectors so I don't know the thickness of the center conductor.
>>It's stamped with the following characters:
>>68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>>
>>I asked the seller, an ex-Boeing employee about it and he said it's the
>
> same
>
>>kind as used in Air Force One. He couldn't recall the specs but said it
>
> was
>
>>Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>>
>>Can anyone tell me more or point me to a site?
>>tnx
>>--
>>
>>73
>>Hank WD5JFR
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>>I've tried to find the specs but get only one hit googling::
>>http://www.waea.org/tech/techdocs/SatSpec0798V1.doc
>>
>>This site kind of confirms what the seller said.
>>
>>
>>
>
>
>

2998. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 15:46:13 UTC
From: Ian White G/GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <9v3L3ObFBS3CFA+h@ifwtech.co.uk>
Source record: 73113

Don Baker wrote:
>The recent popularity of a new antenna cable called Skyhighgain Coax
>has created a safety problem for users and a nightmare for
>firefighters. SHGC was developed theoretically by Tricenters
>Experimental Laboratories, Inc. as a signal-boosting element for use in
>radio and television transmission lines. Scientists at TELI discovered
>that when a bias voltage is applied to the special material used to
>make SHGC the effect was incredible. Instead of simply reducing signal
>loss, the signal strength increased!
>
>Amplification of RF (radio-frequency) signals in the new coaxial
>transmission cable was actually greater than 3 db (decibels) per meter
>per meter. (Read that again.)

LEGAL WARNING: positive gain coax was patented in the late 1980s by the muTek company in Britain, under the brand name "Gainiax".

Following established precedent in this newsgroup, unauthorized users of this patented technology will be pursued with the full vigour of the law.

muTek advertised this new product in an April RadCom... and received several serious inquiries.

Unfortunately the factory did not survive the first production run. The last words heard over the phone were "You want the ends of these reels shorted together?"

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2999. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 15:47:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h48qd19d26tf8duf0lmlkbn4qi94l2p2at@4ax.com>
Source record: 73114

On Tue, 19 Jul 2005 11:43:58 -0400, Ham op <hamop@comcast.net> wrote:

>Now, if this could be made to work with beer!!!! Let's see, one pint in
>and a lifetime supply out. Sounds good to me.
Sounds like a bladder infection.

3000. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 16:02:33 UTC
From: drwxr-xr-x <nobody@frontier.net>
Message-ID: <slrnddq90p.a4u.bit-bucket@shell.config.com>
Source record: 73115
Body handling: HTML body converted to readable text

```
On Mon, 18 Jul 2005 23:52:41 -0400, Jennie wrote:
> This is a multi-part message in MIME format.
>
> _------=_NextPart_000_248A_01C58BF3.C8CE8A60
> Content-Type: text/plain;
> charset="iso-8859-1"
> Content-Transfer-Encoding: quoted-printable
>
> --=20
>
> "Jennie" wrote in message =
> news:guSdncI2ethh7EHfRVn-rQ@adelphia.com...
>
> --=20
>
> "Jennie" wrote in message =
> news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com...
>
> --=20
>
> _------=_NextPart_000_248A_01C58BF3.C8CE8A60
> Content-Type: text/html;
> charset="iso-8859-1"
> Content-Transfer-Encoding: quoted-printable
>
>
>[HTML>[HEAD>
> charset=3Diso-8859-1">
>
>
>
>[BODY bgColor=3D#ffffff>
>
This is basically what i am trying to do for 10-40 =
> meter at=20
>

>
href=3D"http://www.g3ycc.karoo.net/w3edp.htm">http://www.g3ycc.karoo.net/=
> w3edp.htm

>
```

>
My zm-2 will act as the cap circuit....

>

--

Bill
KI4HPZ

>

>

>
style=3D"PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px; =
> BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
>
"Jennie" < href=3D"mailto:hnix@adelphia.net">hnix@adelphia.net>=20
> wrote in message =
> href=3D"news:guSdncI2ethh7EHfRVn-rQ@adelphia.com">news:guSdncI2ethh7EHfRV=
> n-rQ@adelphia.com...

>
I will be using the zm-2 tuner with a =
> ft-817...

>

>
T

>

--

Bill
KI4HPZ

>

>

>
style=3D"PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px; =
> BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
>
"Jennie" < href=3D"mailto:hnix@adelphia.net">hnix@adelphia.net> wrote in =
> message=20
> =
> href=3D"news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com">news:7eGdnbOfidfv7EHfRV=
> n-ig@adelphia.com...

>
Hooking up a wire antenna to my shack. Using one =
> wire with=20

> counterpoise. What length do i need for the wire in the trees =
> for=20
> 10-40 meter?

>

>
Thanks

>

>

--

Bill
KI4HPZ

>

>

>
> ------=_NextPart_000_248A_01C58BF3.C8CE8A60--

Two things:

1. Turn off HTML posting in your *^@%*^$! LookOut! Express.

2. Try composing your thoughts and questions before you approach usenet.

3001. Re: Hmmmmmmmmmmmmm . . . . if a . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 16:39:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11dqb5o9hu6nfbb@corp.supernews.com>
Source record: 73116

David J Windisch wrote:
> . . . . . "transmission-line" is "improperly terminated" at *both* ends,
> that is, "*not* at its surge impedance", then "anything" "sloshing" "to and
> fro" inside the "transmission-line" will be affected by whatever
> "termination" "anything" "sees".
>
> Is that a good-enough working hallucination?
>
> 73, Dave, N3HE

Good enough for what?

Simplified concepts are sometimes good enough for simplified purposes. But all too often, people try to extend them to phenomena which are beyond the range of the simplified concept's validity. So you end up coming to conclusions which are absurd at best and subtly wrong at worst. (I say absurd at best because hopefully they'll at least be obviously wrong, while the errors in subtly wrong conclusions are not so apparent.)

But if I'm properly interpreting your quotation marks as meaning that the enclosed terms are vague or poorly defined or that you don't have a complete grasp of their meaning, your working concept includes at least nine terms which are in this category. As such, I doubt that it's a good working "hallucination" for any use.

The language of science and engineering is mathematics. Without the ability to use mathematics to describe physical and electrical phenomena, any "working" explanation will fail at some point. The problem is that it's often not apparent just where this point is.

Roy Lewallen, W7EL

3002. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 16:39:18 UTC
From: squeege boy <none@personainternet.com>
Message-ID: <m4bqd1l5bp8pkbvov9dklsfi340rpak55h@4ax.com>
Source record: 73118

thanks a million
sounds good
going to see if I can build that magnetic loop myself, rather than
buying something

many thanks

On Tue, 19 Jul 2005 11:59:45 +0200, "Thierry" <-> wrote:

>
>"squeege boy" <none@personainternet.com> wrote in message
>news:4lkod157rpimgd23vspi0jp0sradpce3rs@4ax.com...
>> I am livign in an apartment, so I cant transmit (no towers and what
>> not) so I am looking for what would suit my needs best for HF and
>> shortwave recption in general
>>
>> I have googled a bit and havent found much in the way of easy to build
>> or easy to obtain parts to build antennas
>>
>> any help would be really appreciated
>> cheers
>
>Hi,
>
>IMHO there is no miracle to work in such solution. I have the same problem,
>having moved in a modern appartment where I am not allowed to erect any
>antenna on the roof. So remain the portable solution.
>
>In your case, for reception, why not to test an active magnetic loop
>antenna. They cover all the spectrum in continue
>see e.g. http://www.astrosurf.org/lombry/qsl-ala1530.htm
>
>As you are licensed I think, there are also magnetic loops for TX, see e.g.
>www.wimo.de
>Only drawback, better to stay over 7m from the antenna due to the magnetic
>field generated. If you can do that, it's fine. Its performances are not
>better than a dipole but its is somewhat directive. That helps.
>
>Hope this helps.
>
>73
>Thierry, ON4SKY
>http://www.astrosurf.org/lombry
>

3003. Why you can't solve this 2(bad)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 16:40:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ej8qd1dfu5u3v1omk36qs3dieqvq8is2la@4ax.com>
Source record: 73117

Thus has it been told by the Holy Cowboy of the Sacred Blind Longhorn:

>Reflected energy is eliminated at the air to thin-film interface
>because of wave cancellation (total destructive interference).

This Sermon given somewhere in the Sepulcher of the Prairie was to
remind us how similar this parable was to transmission line
experience:

> The example I gave was designed for clarity of understanding.

It was further given that all revelations were proven through the
witness of the Holy spirit of the Range:

>A Bird wattmeter indicates that all reflections are eliminated in the T-line example
>so the laser example assumes that as a boundary condition.

The Bird has a stated inaccuracy of 3% (neglecting all other sources
of error) and the example above exhibits 1% products. As such, the
testimony of that Holy spirit of the Range reveals that either the
math offered is in error, or the theory is error, or the assumption
(same thing as theory in this case) is in error.

Hence the contradiction explicit within this testimony. The Bird does
not indicate any reflections - or rather it indicates erroneous
reflections (as both are equal outcomes when the inherent inaccuracy
exceeds the products by 3:1).

However, when this testimony was offered, the voice from the
Smoldering Tumbleweed imposed:
>All reflections are eliminated by wave cancellation.
>That is a given boundary condition for the simple example.

Hence we have the Miracle of the Holy spirit of the Range's
infallibility. That Miracle is that even sitting on the shelf, the
Bird's off zero indication is a revelation of reflections in the
ï¿½ther.

To give proof to faith, we have the Miracle of
>The incident intensity upon the 3rd medium is 1.0101w.
wherein with each splitting of the wave feeds the multitudes.

>Your insistance on rewriting the math to make it as different from a
>T-line example as possible is simply a diversion away from the
>original purpose.

The Divine Purpose, using the Holy Cowboy's Sacred Text, has been
impugned by the Sacred Cowboy to prove the Divine Purpose. It is a

heresy for those not in the Order of the Sacred Blind Longhorn to
employ this Kabala of numerology which is the right of Priests alone.

The Smoldering Tumbleweed once again pronounces:
>The net reflections are not TEN TIMES BRIGHTER THAN THE SUN -
>they are flat black, by definition.

And I said -
Let there be light!

73's
Richard Clark, KB7QHC

3004. 2Mtr Between HF Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 16:42:50 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <nmaqd1tk6lhusl99jmga47olulmg6t58l9@4ax.com>
Source record: 73119

Am putting a 10 meter mono on top of a 4 element tri-bander. There
will be about 8 ' separation. First, will I have a problem with the
10 meter beam interacting with the 10 meter portion of the tri-bander?
Second, what kind of interaction would I have if I put a short two
meter beam between the two. I am restricted to one tower, but I hate
to give up the performance of the 10 meter mone for the next cycle.

Win

3005. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 17:10:45 UTC
From: notmeman <aintme@aol.com>
Message-ID: <pucqd1dn6ea6hujc8gaud3heghorb6vuoj@4ax.com>
Source record: 73120

And the Tooth Fairy was the CFO, and Santa Claus was ther CEO. And
they got busted for breaking Ohm's Law.

On Tue, 19 Jul 2005 10:01:30 -0400, "Don Baker" <n2mcg@comcast.net>
wrote:

>Henry:
>From: http://www.nrcdxas.org/articles/coax.html
>
>The recent popularity of a new antenna cable called Skyhighgain Coax has
>created a safety problem for users and a nightmare for firefighters. SHGC
>was developed theoretically by Tricenters Experimental Laboratories, Inc. as
>a signal-boosting element for use in radio and television transmission
>lines. Scientists at TELI discovered that when a bias voltage is applied to
>the special material used to make SHGC the effect was incredible. Instead of
>simply reducing signal loss, the signal strength increased!
>
>Amplification of RF (radio-frequency) signals in the new coaxial
>transmission cable was actually greater than 3 db (decibels) per meter per
>meter. (Read that again.)
>
>In laymen's terms, that means that for every 10 centimeters a signal travels
>through the cable the signal strength doubles! Put 1 Watt of RF energy into
>one end of a one meter length of SHGC and you get 2 Watts at the other end
>(assuming you supply the bias voltage, of course). At two meters you get 4
>Watts. At three meters the signal strength increases to eight Watts.
>Doubling the power every meter the total effective power of the signal
>exceeds 1,000 Watts by the time it has traveled only 10 meters up the line.
>
>Now imagine what would happen if you had a 100-meter SHGC cable. (The actual
>figures are shown at the end of this article.)
>
>In conventional transmission lines there is always some loss of signal
>depending upon frequency and the electric characterists of the cable. But
>with SHGC, instead of a loss, you get a gain in signal strength. This is the
>stuff every radio engineer has dreamed of.
>
>But here's the problem. The unwary (and mathematically challanged) average
>user seems to think that if a short section of SHGC inserted in his
>transmission line is good, then a longer one is better. If one were to, say
>substitute SHGC for the complete run from their radio shack to the top of
>their tower, the signal would have more energy than the cable (or the
>antenna) could withstand. (The 20-meter traps on the tri-band beam that used
>to be on the 60-meter Rohn 25g tower behind the house in the photograph
>above were never found.)

>
>Designed to be used in short sections between standard coax and the antenna,
>SHGC is not currently available, pending the resolution of certain limiting
>manufacturing capabilities. Some reports have surfaced however that a few
>samples of the hot-pink colored coax have somehow slipped past reality
>checkpoints and made their way into the Amateur (and amateur) community. And
>without official spec sheets and installation guides SHGC poses a
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>could handle the load, the signal would exceed 30 million Watts at only 25
>meters from the transmitter.
>
>Of course, most power main breakers would trip long before the million Watt
>level, but once the signal starts up the transmission line the peak envelope
>power (PEP) climbs so fast that there is a possibility that the circuit
>breakers would either fuse or the electric current would simply jump the
>breaker's open switch gap and power would continue to increase until the
>primary main lines evaporated in what could only be described as an

>artificial bolt of lightning, showering every surrounding structure in hot
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>> Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
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>> Can anyone tell me more or point me to a site?
>> tnx
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>>
>> 73
>> Hank WD5JFR
>>
>>
>> I've tried to find the specs but get only one hit googling::
>> http://www.waea.org/tech/techdocs/SatSpec0798V1.doc
>>
>> This site kind of confirms what the seller said.
>>
>>
>>
>

3006. Re: What is the MFJ magic circle ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 17:27:24 UTC
From: Bjay <ben.bensweb@virgin.net>
Message-ID: <0KaDe.2871$yH4.560@newsfe2-win.ntli.net>
Source record: 73121

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:kj0qd1l9p1akhbj5c8vjt6v99am0kloh8t@4ax.com...
> On Tue, 19 Jul 2005 00:31:04 GMT, "Bjay" <ben.bensweb@virgin.net>
> wrote:
>
>>I have tried to find detailed information about the MFJ-935 or 936 Loop
>>Tuner but so far it has remained a mystery.
>>
>>No one seems to know what is inside the box, this is surely out of
>>character
>>with the Ham Radio hobby, unless maybe things have changed so much that we
>>now accept any black box without question.
>>
>>If you have dared to peak inside a magic circle box please tell
>>
>>Thanks
>>
>>
>
> The boxes contain tuners for small loop antennas. Go to the mfj site;
> they show an internal picture of the 933 loop tuner. Couple of
> variable caps. You might also see if you can download the manuals for
> these tuners from the MFJ site -- many are available.
>
> Or check your ARRL Antenna book for tuning circuits for small loop
> antennas. No mystery.
>
> bob
> k5qwg
>
>
>
Thanks for your reply Bob but it is the 935 or 936 loop tuner that I am
interested in and not the 933.
the one that converts a short piece of wire into a small tuned loop.
Cheers

3007. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 17:33:20 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96986BCDD40CFspectrumhogstarbandn@207.106.92.175>
Source record: 73122

I am livign in an apartment, so I cant transmit (no towers and what
>> not) so I am looking for what would suit my needs best for HF and
>> shortwave recption in general
>>
>> I have googled a bit and havent found much in the way of easy to
>> build or easy to obtain parts to build antennas
>>
>> any help would be really appreciated
>> cheers

There is no reason anyone living in an apartment can't get on the air, at least to some extent. Have you checked MFJ products for antennas that would suit your needs? http://www.mfjenterprises.com

There is the mini whip apartment antenna for 40 - 10M, which will mount right on an outside window sill, MFJ-1622, and there are a number of totally indoor antenna loops you can use, although they are rather pricey, such as MFJ-1788. If you operate QRP at 5 watts, or even up to around 20 watts, none of your neighbors will even know you are on the air. Good luck

Ed

3008. Re: What is the MFJ magic circle ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 17:47:53 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96986E456990Dspectrumhogstarbandn@207.106.93.175>
Source record: 73123

>>
> Thanks for your reply Bob but it is the 935 or 936 loop tuner that I
> am interested in and not the 933.
> the one that converts a short piece of wire into a small tuned loop.
> Cheers

Didn't you even look? On their website there is a beautiful high
resolution picture of the interior of the MFJ-936B tuner. I would hazzard
a guess that it is nearly identical to the out-of-production 936.

Ed

3009. Re: What is the MFJ magic circle ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 18:02:42 UTC
From: Bjay <ben.bensweb@virgin.net>
Message-ID: <6fbDe.4452$je1.4274@newsfe7-win.ntli.net>
Source record: 73124

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96986E456990Dspectrumhogstarbandn@207.106.93.175...
>>>
>> Thanks for your reply Bob but it is the 935 or 936 loop tuner that I
>> am interested in and not the 933.
>> the one that converts a short piece of wire into a small tuned loop.
>> Cheers
>
>
> Didn't you even look? On their website there is a beautiful high
> resolution picture of the interior of the MFJ-936B tuner. I would
> hazzard
> a guess that it is nearly identical to the out-of-production 936.
>
>
>
> Ed
Thanks I have just located the page and the pictures are very good.

Cheers and thank you all for your help.

3010. Exotic coax ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 18:18:18 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <KtbDe.612$9D1.571@newssvr25.news.prodigy.net>
Source record: 73125

If you don't suceed try again. Sorry for the repost but my previous post drew nothing useful. Is this site getting like the rest of the Internet?

At the OKC hamfest I got a piece of neat looking coax that is double shielded with silver braid, with a sort of clear pink outer sheat. It has connectors so I don't know the thickness of the center conductor but the seller said it was 50 ohm.
It's stamped with the following characters:
68999, AA-2831. 81205, 204-15578-1, AUGUST 1996

I asked the seller, an ex-Boeing employee about it and he said it's the same kind as used in Air Force One. He couldn't recall the specs but said it was Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.

Can anyone tell me more or point me to a site?
tnx
--

73
Hank WD5JFR

3011. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 18:27:08 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1121797628.591195.96760@g43g2000cwa.googlegroups.com>
Source record: 73126

It could be, although I dont remember it specifically when I installed
coax on AF1 (1990). But that is Equivilant to Boeings BMS13-65.
Which is Coax for Satcoms.

3012. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 18:47:04 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbjhu5$5sn$1@news.service.uci.edu>
Source record: 73127

Cecil Moore wrote:

> Richard Harrison wrote:
>
>> Regardless of reflections and re-reflections, all the energy sourced
>> into a transmission line ends up in the load if it isn`t lost in
>> transmission by radiation or conversion into heat. There`s no place else
>> for it to go.
>
>
> Hi Richard, does that statement assume that all energy
> dissipated as heat in the source was never sourced?

It seems to. Since he wrote "all the energy sourced
into a transmission line", it's doubtful that he was implying that any
heat energy was sourced into the transmission line. That would be silly
(RF transmission line is opaque in the infrared). He probably also
assumed that the energy dissipated by the front panel lights wasn't
sourced into the transmission line either. You forgot to ask about
that. ;-)

73, ac6xg

3013. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 19:06:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dd5046$1_2@spool9-west.superfeed.net>
Source record: 73128

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> Hi Richard, does that statement assume that all energy
>> dissipated as heat in the source was never sourced?
>
> It seems to. Since he wrote "all the energy sourced
> into a transmission line", it's doubtful that he was implying that any
> heat energy was sourced into the transmission line.

You missed the implication which was: Does any RF energy
exit the source only to re-enter the source again later
and wind up being dissipated as heat? For instance, we
know that a capacitive load is capable of returning
energy to the source during part of the cycle.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3014. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 19:36:23 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbjkqs$77a$1@news.service.uci.edu>
Source record: 73130

Cecil Moore wrote:

> Jim Kelley wrote:
>
>>
>> Cecil Moore wrote:
>>
>>> Hi Richard, does that statement assume that all energy
>>> dissipated as heat in the source was never sourced?
>>
>>
>> It seems to. Since he wrote "all the energy sourced
>> into a transmission line", it's doubtful that he was implying that any
>> heat energy was sourced into the transmission line.
>
>
> You missed the implication which was: Does any RF energy
> exit the source only to re-enter the source again later
> and wind up being dissipated as heat?

That implication did escape notice. Clearly Richard was talking about
something else.

But it's an interesting question. It would be nice to see some
objective data.

73, ac6xg

3015. Re: Exotic coax ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 19:38:49 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1121801929.142448.283990@g43g2000cwa.googlegroups.com>
Source record: 73129

Try a Google search for 204-15578-1. I got one hit. Also look for
68999 in the pdf file at
http://www.timesmicrowave.com/content/pdf/tl14/28.pdf, and do a Google
search on '68999 coax'. Things like that might get you somewhere...or
might be dead ends.

Also, measure the impedance. The size will give you a good indication
of the loss, or just measure it.

Cheers,
Tom

3016. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 19:39:22 UTC
From: richardharrison@webtv.net
Message-ID: <1330-42DD56EA-698@storefull-3257.bay.webtv.net>
Source record: 73131

Jim Kelley wrote:
"You take too great a liberty with the name Eugene Hecht. Among the things which won`t be found in any of Dr. Hecht`s texts is a minus sign in front of a number expressing an impedance."

Don`t know why not. It happens at radio frequencies all the time. Look through Kraus` chapter on "Mutual Impedance of Other Configurations".

B. Whitfield Griffith, Jr. gives a practical example starting on page 427 of "Radio-Electronic Transmission Fundamentals". On page 429 he writes:
"We immediately notice one disturbing fact: the resistance component of tower 1 has come out to be a negative number. This does not mean the computations are wrong; it simply means that this tower because of the particular phasing and current relationships of this array, will be absorbing more power than it will be radiating itself."

This is an old story with broadcast antenna arrays.

Best regards, Richard Harrison, KB5WZI

3017. Re: Exotic coax ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 19:47:08 UTC
From: dplatt@radagast.org
Message-ID: <11dqm5se9dk6i39@corp.supernews.com>
Source record: 73132

In article <KtbDe.612$9D1.571@newssvr25.news.prodigy.net>,
Henry Kolesnik <kolesnik@sbcglobal.net> wrote:

>At the OKC hamfest I got a piece of neat looking coax that is double
>shielded with silver braid, with a sort of clear pink outer sheat. It has
>connectors so I don't know the thickness of the center conductor but the
>seller said it was 50 ohm.
>It's stamped with the following characters:
>68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>
>I asked the seller, an ex-Boeing employee about it and he said it's the same
>kind as used in Air Force One. He couldn't recall the specs but said it was
>Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>
>Can anyone tell me more or point me to a site?

Hmmm. I wonder whether this might not be Times Microwave 68999, a
mil-spec hermetically sealed .34" coax. Silver-plated copper-clad
aluminum center conductor, taped PFTE (Teflon) dielectric, triple
shield (silver-plated copper strip, aluminum-backed tape,
silver-plated copper braid), FEP (Teflon) inner jacket, Nomex outer
jacket. 50 ohms, rated to 18 GHz.

Definitely exotic stuff, intended for applications where long-term
reliability is extremely important.

http://www.timesmicrowave.com/content/pdf/MT340E-B.pdf

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3018. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 19:47:57 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbjlgn$7fn$1@news.service.uci.edu>
Source record: 73133

Richard Harrison wrote:
> Jim Kelley wrote:
> "In other words a system in which all of the power from the source
> reaches the load and none is reflected back to the source without first
> reflecting then re-reflecting would violate conservation of energy."
>
> Conservation of energy means that energy is neither created nor
> destroyed, but that heat and other forms of energy are quantitifiable
> and convertable in their equivalence. The total amount of mechanical,
> thermal, chemical, electrical, and other forms of energy in any isolated
> system remains constant. A century ago, Einstein broadened the law to
> include equivalence of mass and energy.
>
> Regardless of reflections and re-reflections, all the energy sourced
> into a transmission line ends up in the load if it isn`t lost in
> transmission by radiation or conversion into heat. There`s no place else
> for it to go.
>
> Best regards, Richard Harrison, KB5WZI

Yes, thanks Richard. It is quite a simple concept. But my contention really isn't about conservation of energy. It's about the 2nd law of thermodynamics. Nature does not require a rolling ball to run through a Rube Goldberg contraption in order to conserve energy. In fact it generally abhors such things. "One should not increase, beyond what is necessary, the number of entities required to explain anything."

73, ac6xg

3019. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 20:08:29 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <XKmdndYWGrOGw0DfRVn-2w@comcast.com>
Source record: 73134

Aw shucks! Truth destroys all the fun!

Rick Scott wrote:

> It could be, although I dont remember it specifically when I installed
> coax on AF1 (1990). But that is Equivilant to Boeings BMS13-65.
> Which is Coax for Satcoms.
>

3020. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 20:57:33 UTC
From: richardharrison@webtv.net
Message-ID: <20114-42DD693D-928@storefull-3251.bay.webtv.net>
Source record: 73135

Cecil Moore, W5DXP is alleged to have written:
"Nor will we find a negative scalar quantity accompanied by the claim that the negative sign indicates a change in direction as you have done."

Have not read Hscht, but I`ve read Terman and realize that a transmission line can guide a wave only forward and backward. Sometimes backward is considered the negative direction.

Terman gives an example on page 90 of his 1955 edition:
"When the load end of the line is shorted, that is Eload =0 , reference to Eq. (4-14) shows the reflection coefficient has the value -1.0 on an angle of 0-deg.= 1.0 on an angle of 180-deg. As in the open-circuited case, the reflected wave has an amplitude equal to the amplitude of the incident wave. However, the refleection now takes place with a reversal in phase of the voltage and without change in phase of the current."

Best regards, Richard Harrison, KB5WZI

3021. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 21:36:28 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <wneDe.4854$_%4.372@newssvr14.news.prodigy.com>
Source record: 73136

Ian White G/GM3SEK wrote:

> LEGAL WARNING: positive gain coax was patented in the late 1980s by the
> muTek company in Britain, under the brand name "Gainiax".
>
> Following established precedent in this newsgroup, unauthorized users of
> this patented technology will be pursued with the full vigour of the law.
>
> muTek advertised this new product in an April RadCom... and received
> several serious inquiries.
>
> Unfortunately the factory did not survive the first production run. The
> last words heard over the phone were "You want the ends of these reels
> shorted together?"

I was wondering why I hadn't heard of any muTEK replacement boards for
any of the newer UHF-VHF rigs--- And, now i KNOW WHY! Jim NN7K

3022. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 21:53:49 UTC
From: richardharrison@webtv.net
Message-ID: <20114-42DD766D-933@storefull-3251.bay.webtv.net>
Source record: 73137

Jim Kelley wrote:
"It`s about the 2nd law of thermodynamics."

Which are:
1. You can`t win.
2. You can`t break even.
3. You can`t get out of the game.

Best regards, Richard Harrison, KB5WZI

3023. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 22:17:02 UTC
From: Ian White G/GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <oWheZjoevX3CFAve@ifwtech.co.uk>
Source record: 73139

Jim - NN7K wrote:
>
>
>Ian White G/GM3SEK wrote:
>
>> LEGAL WARNING: positive gain coax was patented in the late 1980s by
>>the muTek company in Britain, under the brand name "Gainiax".
>> Following established precedent in this newsgroup, unauthorized
>>users of this patented technology will be pursued with the full
>>vigour of the law.
>> muTek advertised this new product in an April RadCom... and received
>>several serious inquiries.
>> Unfortunately the factory did not survive the first production run.
>>The last words heard over the phone were "You want the ends of these
>>reels shorted together?"
>
>
>I was wondering why I hadn't heard of any muTEK replacement boards for
>any of the newer UHF-VHF rigs--- And, now i KNOW WHY! Jim NN7K

The firm has been sold on twice since the Good Old Days.

Meanwhile its first - and last - production batch of Gainiax (TM) is
still melting its way down towards the centre of the Earth.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3024. Re: Exotic coax ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 22:17:58 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <pvuqd1ho9elgbpelp909368p4ga7me5pmv@4ax.com>
Source record: 73138

On Tue, 19 Jul 2005 18:18:18 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>If you don't suceed try again. Sorry for the repost but my previous post
>drew nothing useful. Is this site getting like the rest of the Internet?
>
>At the OKC hamfest I got a piece of neat looking coax that is double
>shielded with silver braid, with a sort of clear pink outer sheat. It has
>connectors so I don't know the thickness of the center conductor but the
>seller said it was 50 ohm.
>It's stamped with the following characters:
>68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>
>I asked the seller, an ex-Boeing employee about it and he said it's the same
>kind as used in Air Force One. He couldn't recall the specs but said it was
>Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>
>Can anyone tell me more or point me to a site?
>tnx

I'd go to the Wireman's web site, and just call them on the phone.
They seem to know everything there is to know about coax.

bob
k5qwg

3025. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 22:35:21 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbjvfebul1@news.service.uci.edu>
Source record: 73140

Richard Harrison wrote:

> Cecil Moore, W5DXP is alleged to have written:

Jim Kelley actually claims to have written it.

> "Nor will we find a negative scalar quantity accompanied by the claim
> that the negative sign indicates a change in direction as you have
> done."
>
> Have not read Hscht, but I`ve read Terman and realize that a
> transmission line can guide a wave only forward and backward. Sometimes
> backward is considered the negative direction.

Yes, for vector quantities expressed as a function of position or time.

> Terman gives an example on page 90 of his 1955 edition:
> "When the load end of the line is shorted, that is Eload =0 , reference
> to Eq. (4-14) shows the reflection coefficient has the value -1.0 on an
> angle of 0-deg.= 1.0 on an angle of 180-deg. As in the open-circuited
> case, the reflected wave has an amplitude equal to the amplitude of the
> incident wave. However, the refleection now takes place with a reversal
> in phase of the voltage and without change in phase of the current."

From Webster's Collegiate:
Scalar - a quantity such as mass or time that has a magnitude
describable by a real number and no direction

Power as a scalar quantity does not have direction, and so one could not
for example subtract power 'moving' in one direction from power 'moving'
in the other direction by arbitrarily multiplying one of the magnitudes
by negative one.

73, ac6xg

3026. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 22:48:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbjvv1$b9n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73141

It fits in well with the nonsense issued by the CIA and the USA and UK governments about weapons of mass destruction. Although in this isolated case it appears no lives have been lost in the London Undergroud.

Reg.

3027. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 23:08:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <tJfDe.148$gp5.7529533@news.sisna.com>
Source record: 73142
Body handling: HTML body converted to readable text

```
go kiss yourself...

if you need your text formatted in some peculiar way--do it yourself
or write a plug-in...

John

"drwxr-xr-x" wrote in message
news:slrnddq90p.a4u.bit-bucket@shell.config.com...
> On Mon, 18 Jul 2005 23:52:41 -0400, Jennie wrote:
>> This is a multi-part message in MIME format.
>>
>> _------=_NextPart_000_248A_01C58BF3.C8CE8A60
>> Content-Type: text/plain;
>> charset="iso-8859-1"
>> Content-Transfer-Encoding: quoted-printable
>>
>> --=20
>>
>> "Jennie" wrote in message =
>> news:guSdncI2ethh7EHfRVn-rQ@adelphia.com...
>>
>> --=20
>>
>> "Jennie" wrote in message =
>> news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com...
>>
>> --=20
>>
>> _------=_NextPart_000_248A_01C58BF3.C8CE8A60
>> Content-Type: text/html;
>> charset="iso-8859-1"
>> Content-Transfer-Encoding: quoted-printable
>>
>>
>>[HTML>[HEAD>
>>> charset=3Diso-8859-1">
>>
>>
>>
>>[BODY bgColor=3D#ffffff>
>>
This is basically what i am trying to do for
>>10-40 =
```

>> meter at=20
>>

>>
> href=3D"http://www.g3ycc.karoo.net/w3edp.htm">http://www.g3ycc.karoo.net/=
>> w3edp.htm

>>

>>
My zm-2 will act as the cap
>>circuit....

>>

--

Bill
KI4HPZ

>>

>>

>>
> style=3D"PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px; =
>> BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
>>
"Jennie" <> href=3D"mailto:hnix@adelphia.net">hnix@adelphia.net>=20
>> wrote in message > =
>> href=3D"news:guSdncI2ethh7EHfRVn-rQ@adelphia.com">news:guSdncI2ethh7EHfRV=
>> n-rQ@adelphia.com...

>>
I will be using the zm-2 tuner with a =
>> ft-817...

>>

>>
T

>>

--

Bill
KI4HPZ

>>

>>

>>
> style=3D"PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px;
>> =

>> BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
>>
"Jennie" <> href=3D"mailto:hnix@adelphia.net">hnix@adelphia.net>
>> wrote in =
>> message=20
>> > =
>> href=3D"news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com">news:7eGdnbOfidfv7EHfRV=
>> n-ig@adelphia.com...

>>
Hooking up a wire antenna to my shack.
>> Using one =
>> wire with=20
>> counterpoise. What length do i need for the wire in the
>> trees =
>> for=20
>> 10-40 meter?

>>

>>
Thanks

>>

>>

--

Bill
KI4HPZ

>>

>>
>>

>>
>> ------=_NextPart_000_248A_01C58BF3.C8CE8A60--
>
>
> Two things:
>
> 1. Turn off HTML posting in your *^@%*^$! LookOut! Express.
>
> 2. Try composing your thoughts and questions before you approach
> usenet.

3028. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 23:11:24 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <wMfDe.5537$dU3.3274@newsread2.news.pas.earthlink.net>
Source record: 73143

"...no lives have been lost in the London Undergroud (sic)..." ?!?

Well Reg, the reality factor of THIS comment is consistent with
that of your usual comments relating to terrorism, at least.

BTW, how IS life on Uranus? And how do you get that hallucinogenic
wine you talk about delivered way out there?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dbjvv1$b9n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> It fits in well with the nonsense issued by the CIA and the USA and UK
> governments about weapons of mass destruction. Although in this
> isolated case it appears no lives have been lost in the London
> Undergroud.
> ----
> Reg.
>
>

3029. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 23:22:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbk1v1$28e$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73144

All you need is a length of plastic-insulated wire strung up in the
attic, or unobtrusively tossed out of a window, and a large aligator
clip attached to the domestic plunbing system. Plus a simple tuner.
Believe me - it really does work very well! Ask any real amateur.
And don't get yourself all mixed up about so-called SWR, reflected
power and take-off angles.

Reg, G4FGQ

3030. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-19 23:50:36 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1121817036.879752.271930@g14g2000cwa.googlegroups.com>
Source record: 73145

Hank, try also googling <68999 coax> and you'll get a little more. Is there nothing you can identify as a manufacturer's name or logo?

You should be able to estimate the loss pretty accurately from the size, and you should be able to measure the impedance with enough accuracy for amateur use pretty easily. Resonance and physical length will tell you the propagation velocity, if you need that.

I'd guess it to be Teflon-insulated and Teflon-jacketed. Does it matter a whole lot for what you want to do with it?

Cheers,
Tom

3031. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 00:05:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <16d77$42dd9574$97d55ac3$6787@ALLTEL.NET>
Source record: 73146

Stick to antennas Reg.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dbjvv1$b9n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> It fits in well with the nonsense issued by the CIA and the USA and UK
> governments about weapons of mass destruction. Although in this
> isolated case it appears no lives have been lost in the London
> Undergroud.
> ----
> Reg.
>
>

3032. Miller Vertical antenna: anybody have a part no. and price for domestic US sale?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 00:19:21 UTC
From: strainster@gmail.com
Message-ID: <1121818761.231327.10090@z14g2000cwz.googlegroups.com>
Source record: 73147

MILLER Short wave listeners aerial 6'high balun matched

yodar

3033. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 01:32:53 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <UPhDe.8891$TU.1519@bignews1.bellsouth.net>
Source record: 73148

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
> Or you could pay 175 for the Original made by the original Designer.
> Why should it be 240-350 when 175 will do ?

By the same token, why would you buy an Escalade when a Ford will do? The difference is materials and the ability to run power if desired. PVC is not really a good form for loading coils. Phenolic is messy and much more expensive. The original uses #16 wire wound at 10 TPI; I prefer #14 at 8 TPI which is actually more efficient. You can even to to #12 at 6 TPI. Not sure that isn't past any real gains in efficiency, tho.

K4KWH

>

3034. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 02:45:19 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <nherd115ipap3tqs7iircok6sfmqbcedpq@4ax.com>
Source record: 73149

Last I checked, and I'll admit it was a few years ago, the HUMVEE was
gov't priced at about $37,000. Not inexpensive, but durable, safer
than the Jeep, and with more armor and cargo capacity.

Scott
N2WMD

On Tue, 19 Jul 2005 02:35:46 GMT, Bob Miller <NOSPAM@neosoft.com>
wrote:

>On Mon, 18 Jul 2005 18:46:15 -0700, Rick Scott <rickn7hj@gmail.com>
>wrote:
>
>>Fred W4JLE wrote:
>>> Given that logic, I assume you drive a model T.
>>>
>>> "Rick Scott" <RickN7HJ@gmail.com> wrote in message
>>> news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
>>>
>>>>Or you could pay 175 for the Original made by the original Designer.
>>>>Why should it be 240-350 when 175 will do ?
>>
>>No, But your own argument is that you shouldnt pay 5-700 dollars for
>>somthing that yours does the same for 240-350.
>>
>>So using your argument, why pay 240-350 for somthing that the Original
>>does for 175 ????
>
>Maybe you should ask Rummy why he's paying $100,000+ for Hummers when
>the Original, the Jeep, runs about $16,000.
>
>bob
>k5qwg
>

3035. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 03:13:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ddc27a$1_1@spool9-west.superfeed.net>
Source record: 73150

Richard Harrison wrote:
> Cecil Moore, W5DXP is alleged to have written:

Actually, it was Jim Kelley who wrote the following.

>> "Nor will we find a negative scalar quantity accompanied by the claim
>> that the negative sign indicates a change in direction as you have
>> done."
>
> Have not read Hecht, but I`ve read Terman and realize that a
> transmission line can guide a wave only forward and backward. Sometimes
> backward is considered the negative direction.

Yep, that's what I told him. In fact, Ramo & Whinnery illustrate
the Poynting vector for forward power as Pz+ and the Poynting
vector for reflected power as Pz-. The net power is (Pz+)-(Pz-).
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3036. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 03:36:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ddc7c7$1_2@spool9-west.superfeed.net>
Source record: 73151

Jim Kelley wrote:
> Power as a scalar quantity does not have direction, and so one could not
> for example subtract power 'moving' in one direction from power 'moving'
> in the other direction by arbitrarily multiplying one of the magnitudes
> by negative one.

For engineers, the direction of the arrow for the Power
Flow Vector in joules/sec is generally accepted to be the
same as the direction of the joules.

From the IEEE Dictionary: "power-flow vector - Vector-
characterizing energy propagation caused by a wave and
giving magnitude and direction of power per unit-area
propagating in the wave."

Please note the "*DIRECTION OF POWER* ... *PROPAGATING*
in the wave", a direct contradiction to your above assertion.
The power measured at the source somehow finds its way to the
load in spite of not having any direction (according to you. :-)

Most of your rantings and ravings over what I have said
are simply semantics and definitions. RF energy and RF
power are so closely related that Walter C. Johnson talks
about the "principle of conservation of power".
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3037. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 04:05:57 UTC
From: richardharrison@webtv.net
Message-ID: <1330-42DDCDA5-778@storefull-3257.bay.webtv.net>
Source record: 73153

Jim Kelley wrote:
"Power as a scalar quantity does not have direction, and so one could not for example subtract power "moving" in the other direction by arbitrarily multiplying by negative one."

Terman did so rather deftly. We make simplifying assumptions and replace the general case with the special case all the time. Bird defines true power delivered by the source to the load as the difference between its forward and reverse power indications. It`s satisfactory in most cases.

Inductive and capacitive reactances are routinely added together to give the net reactance and it works fine so long as the reactances are pure. They lie on the same axis but in opposite directions so can be treated as scalars. Another special case.

Best regards, Richard Harrison, KB5WZI

3038. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 04:09:29 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <L-adna1EhO3lU0DfRVn-jw@adelphia.com>
Source record: 73152
Body handling: HTML body converted to readable text

drwxr-xr-x

In outlook express go to tools options and then the read tab... Click the button that say read all messages in text...All the major mail reader should have the same function somewhere...

--

Bill
KI4HPZ

"drwxr-xr-x" wrote in message
news:slrnddq90p.a4u.bit-bucket@shell.config.com...
> On Mon, 18 Jul 2005 23:52:41 -0400, Jennie wrote:
>> This is a multi-part message in MIME format.
>>
>> _------=_NextPart_000_248A_01C58BF3.C8CE8A60
>> Content-Type: text/plain;
>> charset="iso-8859-1"
>> Content-Transfer-Encoding: quoted-printable
>>
>> --=20
>>
>> "Jennie" wrote in message =
>> news:guSdncI2ethh7EHfRVn-rQ@adelphia.com...
>>
>> --=20
>>
>> "Jennie" wrote in message =
>> news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com...
>>
>> --=20
>>
>> _------=_NextPart_000_248A_01C58BF3.C8CE8A60
>> Content-Type: text/html;
>> charset="iso-8859-1"
>> Content-Transfer-Encoding: quoted-printable
>>
>>
>>[HTML>[HEAD>
>>> charset=3Diso-8859-1">
>>
>>
>>

>>[BODY bgColor=3D#ffffff>
>>
This is basically what i am trying to do for 10-40 =
>> meter at=20
>>

>>
> href=3D"http://www.g3ycc.karoo.net/w3edp.htm">http://www.g3ycc.karoo.net/=
>> w3edp.htm

>>

>>
My zm-2 will act as the cap circuit....

>>

--

Bill
KI4HPZ

>>

>>

>>
> style=3D"PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px; =
>> BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
>>
"Jennie" <> href=3D"mailto:hnix@adelphia.net">hnix@adelphia.net>=20
>> wrote in message > =
>> href=3D"news:guSdncI2ethh7EHfRVn-rQ@adelphia.com">news:guSdncI2ethh7EHfRV=
>> n-rQ@adelphia.com...

>>
I will be using the zm-2 tuner with a =
>> ft-817...

>>

>>
T

>>

--

Bill
KI4HPZ

>>

>>

>>
> style=3D"PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px; =
>> BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
>>
"Jennie" <> href=3D"mailto:hnix@adelphia.net">hnix@adelphia.net> wrote in
>> =
>> message=20
>> > =
>> href=3D"news:7eGdnbOfidfv7EHfRVn-ig@adelphia.com">news:7eGdnbOfidfv7EHfRV=
>> n-ig@adelphia.com...

>>
Hooking up a wire antenna to my shack. Using one
>> =
>> wire with=20
>> counterpoise. What length do i need for the wire in the trees =
>> for=20
>> 10-40 meter?

>>

>>
Thanks

>>

>>

--

Bill
KI4HPZ

>>

>>

>>
>> ------=_NextPart_000_248A_01C58BF3.C8CE8A60--
>
>
> Two things:
>
> 1. Turn off HTML posting in your *^@%*^$! LookOut! Express.
>
> 2. Try composing your thoughts and questions before you approach usenet.

3039. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 04:27:30 UTC
From: richardharrison@webtv.net
Message-ID: <1330-42DDD2B2-782@storefull-3257.bay.webtv.net>
Source record: 73154

Thierry, ON4SKY wrote:
"As you are licensed I think there are also magnetic loops for TX-."

I agree. The advantage of a small loop is that it is inductive, so a series variable capacitor is needed to tune it, in place of the lossy coil needed to tune a small whip.

Best regards, Richard Harrison, KB5WZI

3040. Force 12 Sigma-5 on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 04:42:31 UTC
From: rfpexec@yahoo.com
Message-ID: <1121834551.365557.316310@f14g2000cwb.googlegroups.com>
Source record: 73155

Hi,

I am selling my Force 12 sigma-5 Vertical dipole antenna on ebay.

I have the ability to ship it anywhere in the world.

To see the antenna click on this link:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5790843071&category=4672&ssPageName=WDVW&rd=1

If that link does no work for you, go to: http://ebay.com and do a
search for: force 12 sigma-5

Thanks for looking.

73s

Bill

3041. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 05:45:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tsord1972nsiufrs6tn5qvbfns80ivvn48@4ax.com>
Source record: 73156

On Tue, 19 Jul 2005 23:05:57 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Bird defines true
>power delivered by the source to the load as the difference between its
>forward and reverse power indications. It`s satisfactory in most cases.

Hi Richard,

That's because the vector arrow is printed on the knob. You won't find a vector notation in the math that has been bandied about because it deals with Scalars and Phase independently (and absolutely no direction expressed whatever).

Any introduction of direction is purely an invention unsupported by references so far expressed. However having pointed this out, like the multitude of mistakes that have gone before it, is not going to change the pantomime.

Marcel can go through the motions of wiping the window clean, but there's no glass there. ;-)

73's
Richard Clark, KB7QHC

3042. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 06:43:55 UTC
From: nm5k@wt.net
Message-ID: <1121841835.658286.86830@o13g2000cwo.googlegroups.com>
Source record: 73157

Lightning attaching to a wire will instantly vaporize the wire.

Not always. Depends on the resistance of the
ground connection. If the resistance is low, a # 6 wire
can take a direct strike, and barely warm up at all.
Even a #10 is ok, if the connection to ground is good.
You might see a tiny pit where the point of contact
was. But a high resistance ground connection, and
yes, it will fry. I've taken two direct strikes on my mast,
and can see no damage at all. You can see a tiny pit
where the strike connected to the mast top, but even
it could be easily missed. According to my experience,
I think the quality of the ground connection also effects
the sound of the strike, not counting the sonic boom overhead.
A strike hitting my mast is very quiet. It's like a light bulb
being thrown on the ground, "plink", and you hear the overhead
sonic boom. But when it hits the trees with their high resistance
to ground, the strike is earsplitting. "CRACK-BAAAAAMMMM".
:(Thats the "local" sound, not the sonic boom, although they mix.
I don't operate during storms, and doubt I would, even if I could.
I unplug the antennas, and ground them out to ground outside
the window. If I *had* to operate during a storm, I would use my
attic dipole. It's the least likely to take a hit, in general.
MK

3043. Program METALFLM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 09:00:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbl3rk$4jo$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73158

FREQUENCY RESPONSE OF WIRE-END RESISTORS

Program has been improved by increasing the number of T and L sections
used to simulate more accurately a distributed metal-film resistor and
its connecting leads. Plus amended program operating notes.

If you are ineterested in the program I suggest you download the
updated version and overwrite your existing copy if you have one.

Download METALFLM from website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

3044. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 11:42:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbldampbn1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73159

"Old Ed" wrote
> Presumably, the reference antennas against which the G5RV is
> called a "compromise" are full-sized dipoles for the respective
> bands. IF the G5RV can come reasonably close to those
> (and many users seem to think it can),

==========
Can 250,000 housewives be wrong?
Of course they can!

3045. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 12:56:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dblhmf$70s$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73160

"Old Ed" wrote
> A common-sense question would be: Why would Varney design
> a single-band 20m doublet that is bigger and more complicated
> than a single-band 20m dipole, unless he was looking for some
> added benefit--e.g., multiband operation?

The reason Varney used a G5RV in preference to an ordinary dipole was because of its clover-leaf radiation pattern on 20 metres. He is quite clear about this. He could work Europe and N.America from S.America without changing antennas. Otherwise, for 20 metres, he would have chosen the better antenna - an ordinary halfwave dipole which also can be used multiband over an openwire line, the line being conveniently of any length.

The reason the G5RV became popular with amateurs was because of its theoretical attraction when Varney published it. The ideas of cloverleaf and 1/2-wavelength feedline, combined in one simple system, were quite clever, easy to understand and therefore intellectually attractive. Also, 20 metres happens to be the best all-year-round, day and night, DX band.

And so began the bandwagon. With a little forced imagination on the part of dealers, multi-band operation (on which it is weak) soon followed.

Even its name, The Famous G5RV, sounds very nice. If Louis Varney had had a call like BF6POX nobody would ever have heard of it.

Reg.

3046. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 13:13:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42de4f0f$1_1@spool9-west.superfeed.net>
Source record: 73161

Richard Clark wrote:
> Any introduction of direction is purely an invention unsupported by
> references so far expressed.

You must have missed the IEEE Definition of "power flow vector".
It speaks of "power ... propagating in the wave". Here's another
definition from the IEEE Dictionary:

"power vector - ... a vector whose magnitude is equal to the
apparent power ..." A power vector diagram in three dimensions
appears with this definition along with its direction. There
is a vector for distortion power, reactive power, and active
power, all orthogonal to each other, vectorally adding up to
the total power vector. I'll bet you are rolling Hecht's or
Einstein's eyes again at the concept of "reactive power".

These definitions are conventions from various fields of
engineering. One is not wrong and the other right. They are
simply context based definitions. English is NOT a context
free language. You have your own little sacred cow definitions
from pure physics but please don't try to force them on the rest
of the world. (You would probably say the definition of power in
Chinese is wrong because you can't read it.)

A power company engineer would be confused about your concept of
how the power generated by the generation plant cannot get to the
consumer hundreds of miles away. Ask him what is in his
transmission lines and he will say power, some of it reactive.

Some RF engineers are confused about your concept of how the
power generated by the transmitter cannot get to the antenna.
In fact, if the transmission line is one microsecond long,
the same power measured at the transmitter makes it to the
antenna one microsecond later minus losses. Some incident power
may be rejected by a mismatched load as reflected power, which
is incident upon the source one microsecond later minus losses.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3047. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 13:18:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42de5014$1_2@spool9-west.superfeed.net>
Source record: 73162

Reg Edwards wrote:
> The reason the G5RV became popular with amateurs was because of its
> theoretical attraction when Varney published it. The ideas of
> cloverleaf and 1/2-wavelength feedline, combined in one simple system,
> were quite clever, easy to understand and therefore intellectually
> attractive. Also, 20 metres happens to be the best all-year-round,
> day and night, DX band.

If Varney didn't intend to use the antenna on 80m and 40m, why
didn't he just feed it with coax? 1/2WL of twinlead doesn't change
the feedpoint impedance on 20m but it does wonders on 80m and 40m.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3048. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 13:27:39 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <33ksd1hku7uh5hafi7se23tthjrkagpqip@4ax.com>
Source record: 73163

On Wed, 20 Jul 2005 02:45:19 GMT, Scott Vanzandt
<zandt@midsouth.rr.com> wrote:

>Last I checked, and I'll admit it was a few years ago, the HUMVEE was
>gov't priced at about $37,000. Not inexpensive, but durable, safer
>than the Jeep, and with more armor and cargo capacity.
>
>Scott
>N2WMD

Well, the civilian Humvee started out in the $79M range, and I believe
costs more now. Hard to believe the gov't would get them at 1/3 the
civilian cost. Think I read up-armored Humvees in Iraq are in the
$130M range.

(And I will admit, the Army Jeeps I drove in the 60s were the worst
driving vehicles I ever enountered. Maybe the civilian jobs are more
fun.)

bob
k5qwg

>
>On Tue, 19 Jul 2005 02:35:46 GMT, Bob Miller <NOSPAM@neosoft.com>
>wrote:
>
>>On Mon, 18 Jul 2005 18:46:15 -0700, Rick Scott <rickn7hj@gmail.com>
>>wrote:
>>
>>>Fred W4JLE wrote:
>>>> Given that logic, I assume you drive a model T.
>>>>
>>>> "Rick Scott" <RickN7HJ@gmail.com> wrote in message
>>>> news:1121722340.228348.223760@z14g2000cwz.googlegroups.com...
>>>>
>>>>>Or you could pay 175 for the Original made by the original Designer.
>>>>>Why should it be 240-350 when 175 will do ?
>>>
>>>No, But your own argument is that you shouldnt pay 5-700 dollars for
>>>somthing that yours does the same for 240-350.
>>>
>>>So using your argument, why pay 240-350 for somthing that the Original
>>>does for 175 ????
>>
>>Maybe you should ask Rummy why he's paying $100,000+ for Hummers when
>>the Original, the Jeep, runs about $16,000.

>>
>>bob
>>k5qwg
>>

3049. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 13:44:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dblkgo$1bp$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73164

Cec sed,
"> If Varney didn't intend to use the antenna on 80m and 40m, why
> didn't he just feed it with coax?
==========

He was averse to feeding a balance antenna over an unbalanced line.
Went against the grain.

Coax was rarely used in his day and age anyway. Too heavy and
expensive.

Everything was open wire. Home made. Couldn't buy it.

Transmitters had tuned tanks and link coupling to openwire line.

And he didn't like RF in the shack. Or radiation from the feedline.
TV's used 45 MHz - the 3rd harmonic of 20 metres.

But most likely, it didn't occur to him.

Reg.

3050. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 14:18:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42de5e6b$1_2@spool9-west.superfeed.net>
Source record: 73165

Reg Edwards wrote:
> Cec sed,
>> If Varney didn't intend to use the antenna on 80m and 40m, why
>> didn't he just feed it with coax?
>
> He was averse to feeding a balance antenna over an unbalanced line.
> Went against the grain.

But he wasn't adverse to feeding a balanced feedline
from an unbalanced source? :-)
--
73, Cecil, http://www.qsl.net/w5dxp

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3051. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 14:49:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1josd15s3s4b1ukv6i44qg9hgq3sfhfau2@4ax.com>
Source record: 73166

On Wed, 20 Jul 2005 08:13:42 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>A power company engineer would be confused
You know some pretty stupid engineers - from the binary field?
P= Iï¿½R
Which one is the vector?
P=Eï¿½/R
Which one is the vector?

Does your power company deliver your 60Hz via laser? Or do they use a
Log Periodic Array? A transmission line like the zip cord to your
lamp? What is the characteristic Z of that transmission line? Is it
matched to the load? To the source?

Sorry to ask all these basic questions so far beyond your ability to
render into TTL. No doubt we will get many explanations but no
answers.

3052. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 15:30:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dblqm4$7u$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 73167

"Cecil Moore"
> But he wasn't adverse to feeding a balanced feedline
> from an unbalanced source? :-)
> --
==========
Regarding the G5RV, what is always forgotten, the balanced openwire feedline is halfwavelength long for both balanced and longitudinal modes.

What is the input impedance of the line when in longitudinal mode?

I'll allow you and the other experts to figure out what happens relative to the unbalanced source. ;o)

Reg.

3053. Re: what is best for 10-40m windom or g5rv

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 15:34:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42de7019$1_1@spool9-west.superfeed.net>
Source record: 73168

Reg Edwards wrote:

> "Old Ed" wrote
>>Presumably, the reference antennas against which the G5RV is
>>called a "compromise" are full-sized dipoles for the respective
>>bands. IF the G5RV can come reasonably close to those
>>(and many users seem to think it can),
>
> Can 250,000 housewives be wrong?
> Of course they can!

Reg, I just modeled the half-sized G5RV using EZNEC.
The dipole is 3/2WL on 10m and the twinlead is 1/2WL
on 10m. EZNEC reports the following 50 ohm SWRs at
the twinlead/coax junction.

10m - 2.0:1, 20m - 2.7:1, 40m - 2.6:11

I would be hard pressed to tell the difference between
the efficiency of a half-sized G5RV vs a resonant
dipole for those three bands.
--
73, Cecil, http://www.qsl.net/w5dxp

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3054. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 15:53:29 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <ZruDe.775$9D1.734@newssvr25.news.prodigy.net>
Source record: 73169

I called Times Microwave and got a spec sheet by email. It is exotic, 50 ohm high temp good to 200 deg. C. Attenuation is .55dB/100' @10 MHz and 5.8 dB @ 1 GHz. Double shield and center conductor are all silver covered, dielec is Teflon and outer jacket is fluorinated ethylene propylene. Operating voltage is 7KVRMS & strength is 12 KVRMS. VP is 76%. Neat stuff, made special for Boeing. Thanks to all who helped

73
Hank WD5JFR
"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:hdVCe.501$9D1.19@newssvr25.news.prodigy.net...
> At the OKC hamfest I got a piece of neat looking coax that is double
> shielded with silver braid, with a sort of clear pink outer cover. It has
> connectors so I don't know the thickness of the center conductor.
> It's stamped with the following characters:
> 68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>
> I asked the seller, an ex-Boeing employee about it and he said it's the
> same kind as used in Air Force One. He couldn't recall the specs but said
> it was Teflon, good to a Gig but he had used it outdoors. for 2 meters
> and 440.
>
> Can anyone tell me more or point me to a site?
> tnx
> --
>
> 73
> Hank WD5JFR
>
>
> I've tried to find the specs but get only one hit googling::
> http://www.waea.org/tech/techdocs/SatSpec0798V1.doc
>
> This site kind of confirms what the seller said.
>
>
>

3055. Re: Exotic coax ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 15:57:19 UTC
From: gus <gus@arrl.org>
Message-ID: <42DE745D.CD339F2D@arrl.org>
Source record: 73170

Be on the lookout for any dark sedans with two men inside
wearing dark sunglasses.

This email has been sent from a dead drop to protect me from
the above referenced individuals.

Henry Kolesnik wrote:

> If you don't suceed try again. Sorry for the repost but my previous post
> drew nothing useful. Is this site getting like the rest of the Internet?
>
> At the OKC hamfest I got a piece of neat looking coax that is double
> shielded with silver braid, with a sort of clear pink outer sheat. It has
> connectors so I don't know the thickness of the center conductor but the
> seller said it was 50 ohm.
> It's stamped with the following characters:
> 68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>
> I asked the seller, an ex-Boeing employee about it and he said it's the same
> kind as used in Air Force One. He couldn't recall the specs but said it was
> Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>
> Can anyone tell me more or point me to a site?
> tnx
> --
>
> 73
> Hank WD5JFR

3056. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 16:05:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42de7770$1_2@spool9-west.superfeed.net>
Source record: 73171

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>A power company engineer would be confused
>
> You know some pretty stupid engineers ...

Typical of you to call someone stupid when they simply
come from a different field and have different conventions
from your personal sacred cow definitions.

> Which one is the vector?

P^ = E^ x H^ (where '^' denotes vectors) The vector
product (cross product) of two vectors is also a vector.
If E^ and H^ are vectors and their vector product is
power, then that power is a vector with magnitude and
direction. (I appologize if that fact bothers physicists.)

> Does your power company deliver your 60Hz via laser?

The wavelength of 60Hz power is about 3000 miles but
it obeys Maxwell's equations just like all other
electromagnetic energy from DC to gamma rays.
--
73, Cecil, http://www.qsl.net/w5dxp

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3057. Re: Exotic coax ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 16:07:23 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <%EuDe.776$9D1.18@newssvr25.news.prodigy.net>
Source record: 73172

I called Times Microwave and got a spec sheet by email. It is exotic, 50 ohm high temp good to 200 deg. C. Attenuation is .55dB/100' @10 MHz and 5.8 dB @ 1 GHz. Double shield and center conductor are all silver covered, dielec is Teflon and outer jacket is fluorinated ethylene propylene. Operating voltage is 7KVRMS & strength is 12 KVRMS. VP is 76%. Neat stuff, made special for Boeing. Thanks to all who helped

73
Hank WD5JFR
"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:KtbDe.612$9D1.571@newssvr25.news.prodigy.net...
> If you don't suceed try again. Sorry for the repost but my previous post
> drew nothing useful. Is this site getting like the rest of the Internet?
>
> At the OKC hamfest I got a piece of neat looking coax that is double
> shielded with silver braid, with a sort of clear pink outer sheat. It has
> connectors so I don't know the thickness of the center conductor but the
> seller said it was 50 ohm.
> It's stamped with the following characters:
> 68999, AA-2831. 81205, 204-15578-1, AUGUST 1996
>
> I asked the seller, an ex-Boeing employee about it and he said it's the
> same
> kind as used in Air Force One. He couldn't recall the specs but said it
> was
> Teflon, good to a Gig but he had used it outdoors. for 2 meters and 440.
>
> Can anyone tell me more or point me to a site?
> tnx
> --
>
> 73
> Hank WD5JFR
>
>

3058. Folded dipole for shortwave

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 16:17:36 UTC
From: Gio <8681invalid@mynewsgate.net>
Message-ID: <2005072016173686 81@mynewsgate.net>
Source record: 73173

I am looking for a folded dipole to be used on shortwave frequencies,
and I have "room" for up to 50 meters (160 ft) lenght.
Does someone know if there is something already built to be purchased?
And where?
With many thanks and kindest regards.
Gio'

3059. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 17:08:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ovtsd153kr7ets0sb8c30v1sfn6kv3oiib@4ax.com>
Source record: 73174

On Wed, 20 Jul 2005 11:05:24 -0500, Marcel scrubbing vigorously in the air:

>Typical of you to call someone stupid when they simply
>come from a different field

It stands to reason when that engineer changes the questions to suit the only answers he knows.

Only a stupid engineer would use the cross product to figure out 60Hz transmission line delivery. Really, I too have a library, thick volumes including very detailed specifics of 60Hz power, and they seemed to have built an entire industry without worrying about direction vectors. Luckily they didn't employ flip-flop designers to build linear systems.

>Ask him what is in his
>transmission lines and he will say power, some of it reactive.

The topic of reactive LOADS (not lines) is discussed at great length and nowhere is it stated that transmission lines have power IN THEM. However, your impoverished representation of the power industry knowledge serves only your lame theories.

>> Which one is the vector?
>
>P^ = E^ x H^

The very first formula from the Standard Handbook for Electrical Engineers, Section 11, Power Transmission, Electrical Calculations:
I = P / E (1)
no vector notation used or needed.

> (I appologize if that fact bothers physicists.)
Your guilt has been duly noted.

Standard Handbook for Electrical Engineers, Section 11, Power Transmission, Electrical Calculations, Para 13, Transmission Line calculations:
"Analytical solutions of problems involving vector quantities may be made by resolving each vector into two components - R and jX"
no vector notation used or needed, and certainly direction and power are wholly missing. This is entirely congruent with my statement.

Standard Handbook for Electrical Engineers, Section 11, Power Transmission, Para. 33, Charts and Diagrams:
Figures 19 & 20, Perrine-Baum diagrams.

no direction vectors whatever.

Standard Handbook for Electrical Engineers, Section 11, Power
Transmission, Para. 36, Charts and Diagrams:
Figures 22, Mershon diagrams.
no direction vectors whatever.

Standard Handbook for Electrical Engineers, Section 11, Power
Transmission, Para. 44, General Features of Design:
no direction vectors whatever.

Standard Handbook for Electrical Engineers, Section 11, Power
Transmission, Para. 69, System Disturbances:
no direction vectors whatever.

>The wavelength of 60Hz power is about 3000 miles

Standard Handbook for Electrical Engineers, Section 11, Power
Transmission, Para. 73, A Line whose length is a quarter wave:
L = 183000 / 4f
no direction vectors whatever.

FINALLY! The only explicit direction vector (but still no math vector
actually used):

Standard Handbook for Electrical Engineers, Section 11, Power
Transmission, Para. 102, Calculation of Horizontal Stress; Para. 106,
Example of stress-sag calculation; Para. 111 The Thomas chart for sag;
Para. 129, Flexible Towers ...

Well, that's just about the end of it (this tome is only 2000 pages
long and undoubtedly missed your cross product somewhere among all
this useless information).

3060. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 17:47:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o43td1t6mr10em372gmhje91sn0m9o55me@4ax.com>
Source record: 73025

On Mon, 18 Jul 2005 13:07:29 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:
>yet another tantalizing, unanswerable question: What wavelength is Glare?

Dear Readers,

In this vein, and from contemporary reports from the NY Times comes:
"It's the old story of the C.E.O. who asks the chief marketing
officer, 'What happens if I take 10 percent out of the marketing
budget?' and the C.M.O. replies, 'I don't know,' so the C.E.O.
says: 'O.K., I'll take 20 percent.' "
...
"Marketers are tracking all kinds of data and they still can't
answer basic questions" about advertising accountability..."

This, of course, returns us to the sage advice offered by me
previously:
"Visually compare glare reductions before you buy anything."
especially when the salesman in boots tells you that you cannot see
reflections TEN TIMES BRIGHTER THAN THE SUN.

Salesman: "Any totally cancelled Glare that you will see is Black."

Turning lemons into lemonade:
"Glare that is TEN TIMES BLACKER THAN THE SUN!"
Let's just hope it doesn't turn up in toothpaste. ;-)

73's
Richard Clark, KB7QHC

3061. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 18:22:52 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbm5i5dlo1@news.service.uci.edu>
Source record: 73026

Cecil Moore wrote:

> For engineers, the direction of the arrow for the Power
> Flow Vector in joules/sec is generally accepted to be the
> same as the direction of the joules.

I am an engineer, Cecil. I just happen to work in the field of physics. I could be wrong, but I don't think a Bird wattmeter measures or displays Power Flow Vector.

> From the IEEE Dictionary: "power-flow vector - Vector-
> characterizing energy propagation caused by a wave and
> giving magnitude and direction of power per unit-area
> propagating in the wave."

> Please note the "*DIRECTION OF POWER* ... *PROPAGATING*
> in the wave", a direct contradiction to your above assertion.

> The power measured at the source somehow finds its way to the
> load in spite of not having any direction (according to you. :-)

Well, it's true for me and probably for most other people who have a grasp of the subject. It's actually energy which does the moving. Power is just the rate at which energy finds its way there.

It's like this. Let's say you're riding your Harley through town at 50 MPH and somebody pulls out of a side street right in front of you. Does the speed of your motorcycle collide with the car, or does your motorcycle collide with it?

73, ac6xg

3062. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 18:50:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c27td1d52h7c3rlgs1ao18bvfkc5brt5tt@4ax.com>
Source record: 73027

On Wed, 20 Jul 2005 11:22:52 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Does
>the speed of your motorcycle collide with the car, or does your
>motorcycle collide with it?

Hi Jim,

Classic Insurance claim form entry:
"I was just driving down the road when, suddenly,
this tree appeared in front of me and hit me."

I think we have the same class of claimant in the process here.

73's
Richard Clark, KB7QHC

3063. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:00:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dea06c$1_1@spool9-west.superfeed.net>
Source record: 73028

Richard Clark wrote:
> Only a stupid engineer would use the cross product to figure out 60Hz
> transmission line delivery.

Uhhhhh Richard, engineers who understand Poynting Vectors
are not stupid. Do you understand Poynting Vectors? 60 Hz
transmission lines have an E-field and an H-field. Those
fields are vectors. The cross product of those fields is
the power-flow vector. (I hope your upper lip survives that
fact of engineering physics.) Every power engineer that I have
ever known is capable of discussing "power flow" without batting
an eye. However, being a member of MENSA allows me to understand
both sides of the argument. :-) Are you a member of MENSA?

> However, your impoverished representation of the power industry
> knowledge serves only your lame theories.

It appears that what is impoverished is your understanding of
the power industry (and many other industries).

>>P^ = E^ x H^
>
> The very first formula from the Standard Handbook for Electrical

The very first formula in my "Electronics Equations Handbook"
is R = pl/a. The importance of being first escapes me. Are we
to accept the first and reject the rest?

> Engineers, Section 11, Power Transmission, Electrical Calculations:
> I = P / E (1)
> no vector notation used or needed.

Mr. Poynting is rolling his eyes at you. :-) I have heard that
same argument before. "I understand Ohm's Law! Everything else
is gobbledegook!" (Never mind that the poster cannot even spell
"gobbledygook" correctly.)

> This is entirely congruent with my statement.

Which is more important? - congruence or relevance?
(a rhetorical question - no answer required)

> no direction vectors whatever.

You left out: there's no direction vectors in "Alice In
Wonderland". (No doubt your favorite technical reference.)
--
73, Cecil http://www.qsl.net/w5dxp

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3064. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:05:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dea177$1_1@spool9-west.superfeed.net>
Source record: 73029

Richard Clark wrote:

> Richard Clark <kb7qhc@comcast.net> wrote:
>>yet another tantalizing, unanswerable question: What wavelength is Glare?
>
> Dear Readers,

Richard, I am really worried about you arguing with your own
postings. The wavelength of glare from a single-frequency
coherent laser is obviously the same as the wavelength of the
laser's primary output beam. What else could it possibly be?
--
73, Cecil http://www.qsl.net/w5dxp

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3065. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:15:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <018td1p2iiigu7lt0p8lig6vlm7cr0cut0@4ax.com>
Source record: 73030

On Wed, 20 Jul 2005 14:00:51 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Uhhhhh Richard ... Are you a member of MENSA?

Classic bookends.

>The very first formula in my "Electronics Equations Handbook"
>is R = pl/a. The importance of being first escapes me.

:-)

>You left out: there's no direction vectors in "Alice In Wonderland"

From my references for Power Distribution Engineers abstracted to your
need of vectors in a fantasy.

Even when you can't answer your own topic, it is still amusing,
nonetheless.

3066. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:27:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42dea690$1_2@spool9-west.superfeed.net>
Source record: 73031

Jim Kelley wrote:

> Cecil Moore wrote:
>> For engineers, the direction of the arrow for the Power
>> Flow Vector in joules/sec is generally accepted to be the
>> same as the direction of the joules.
>
> I am an engineer, Cecil. I just happen to work in the field of physics.
> I could be wrong, but I don't think a Bird wattmeter measures or
> displays Power Flow Vector.

On the contrary, Jim, it measures and displays the Power Flow
Vector as explained in Ramo & Whinnery. The arrow on the slug
indicates the direction of the Power Flow Vector. The reading
of the meter indicates the magnitude of the Power Flow Vector.
The Bird is indirectly measuring [(E^for) x (H^for)] as forward
power and [(E^ref) x (H^ref)] as reflected power.

> Well, it's true for me and probably for most other people who have a
> grasp of the subject. It's actually energy which does the moving. Power
> is just the rate at which energy finds its way there.

But everyone except you and a handful of others recognize the
fact that RF joules/sec and RF joules are virtually interchangeable
since EM energy cannot be stored in any condition other than as
EM energy traveling at the speed of light and real time cannot be
stopped or slowed down or speeded up (under normal circumstances).
Your statement that "there is no before and after" is a clue
to your misconceptions. If there truly was no before and after,
the modulation of our RF signals would never make it to the antenna.

> It's like this. Let's say you're riding your Harley through town at 50
> MPH ...

"I couldn't possibly be going 50 MPH - I only left home ten
minutes ago." :-) Believe it or not, that's exactly your argument.

Are you going to deny that the cross product of E^ x H^ is a
vector? You will have 1000 buried mathematicians rolling their
eyes in their graves (according to Richard C).
--
73, Cecil http://www.qsl.net/w5dxp

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3067. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:29:13 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dbm9g5fgn1@news.service.uci.edu>
Source record: 73032

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> For engineers, the direction of the arrow for the Power
>>> Flow Vector in joules/sec is generally accepted to be the
>>> same as the direction of the joules.
>>
>>
>> I am an engineer, Cecil. I just happen to work in the field of
>> physics. I could be wrong, but I don't think a Bird wattmeter measures
>> or displays Power Flow Vector.
>
>
> On the contrary, Jim, it measures and displays the Power Flow
> Vector as explained in Ramo & Whinnery. The arrow on the slug
> indicates the direction of the Power Flow Vector. The reading
> of the meter indicates the magnitude of the Power Flow Vector.
> The Bird is indirectly measuring [(E^for) x (H^for)] as forward
> power and [(E^ref) x (H^ref)] as reflected power.

Even though it doesn't actually measure any of those things, or the density.

>> Well, it's true for me and probably for most other people who have a
>> grasp of the subject. It's actually energy which does the moving.
>> Power is just the rate at which energy finds its way there.
>
>
> But everyone except you and a handful of others recognize the
> fact that RF joules/sec and RF joules are virtually interchangeable
> since EM energy cannot be stored in any condition other than as
> EM energy traveling at the speed of light and real time cannot be
> stopped or slowed down or speeded up (under normal circumstances).
> Your statement that "there is no before and after" is a clue
> to your misconceptions. If there truly was no before and after,
> the modulation of our RF signals would never make it to the antenna.

Yes. Everybody except me knows that Joules = Joules/sec. Must be
because there's no such thing as time. Right Cecil? ;-)

>> It's like this. Let's say you're riding your Harley through town at
>> 50 MPH ...
>
>

> "I couldn't possibly be going 50 MPH - I only left home ten
> minutes ago." :-) Believe it or not, that's exactly your argument.

'Not' would be correct.

> Are you going to deny that the cross product of E^ x H^ is a
> vector? You will have 1000 buried mathematicians rolling their
> eyes in their graves (according to Richard C).

I think I'll stick with just saying that power, as a scaler quantity
does not have direction and cannot be negative. I have no argument with
you about vector quantities - as much as you'd like folks to believe
that I do. Thanks but no thanks, bubba.

73, ac6xg

3068. Re: Folded dipole for shortwave

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:53:05 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <BYxDe.1041$Uk3.727@newsread1.news.pas.earthlink.net>
Source record: 73033

Hi Gio,

Try looking here for what you want:

http://www.eham.net/reviews/products/13

One possibility is this group (a bit expensive):

http://www.bwantennas.com/ama/bwcat.ama.htm

73, Ed

"Gio" <8681invalid@mynewsgate.net> wrote in message
news:200507201617368681@mynewsgate.net...
> I am looking for a folded dipole to be used on shortwave frequencies,
> and I have "room" for up to 50 meters (160 ft) lenght.
> Does someone know if there is something already built to be purchased?
> And where?
> With many thanks and kindest regards.
> Gio'
>

3069. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 19:56:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <roatd1lilsalmsqhk5uiu5665vl9itdh68@4ax.com>
Source record: 73034

On Wed, 20 Jul 2005 14:05:18 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Richard Clark wrote:
>
>> Richard Clark <kb7qhc@comcast.net> wrote:
>>>yet another tantalizing, unanswerable question: What wavelength is Glare?
>>
>> Dear Readers,
>
>Richard, I am really worried about you arguing with your own
>postings. The wavelength of glare from a single-frequency
>coherent laser is obviously the same as the wavelength of the
>laser's primary output beam. What else could it possibly be?

Golly gee, fellas, you two, Cecil and Richard C, you sure don't talk nice to each other. But it sure is fun to sit back and listen to you scream at each other. Just think, what would happen if Leno and Letterman should be reading the mail? They'd kill each other to get their hands on you for their nightly shows, and they could fire all their present writers.

Walt

3070. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 21:08:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <07ftd1lvspudqs9mgffhs1kll7vbi40bhs@4ax.com>
Source record: 73035

On Wed, 20 Jul 2005 15:56:04 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>They'd kill each other to get
>their hands on you for their nightly shows, and they could fire all
>their present writers.

Thanx Walt,

I'd be hard pressed for material without the stooge.

73's
Richard Clark, KB7QHC

3071. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 21:20:55 UTC
From: Ian White G/GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <K9LmzVo3As3CFA4m@ifwtech.co.uk>
Source record: 73036

Cecil Moore wrote:
>The Bird is indirectly measuring [(E^for) x (H^for)] as forward
>power and [(E^ref) x (H^ref)] as reflected power.

That statement bears no physical relationship to how the instrument
actually works (and "indirectly" won't get you off the hook either).

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3072. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 21:28:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a7e9$42dec223$97d55ac3$19726@ALLTEL.NET>
Source record: 73037

It takes at least two stooges interacting to be funny.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:07ftd1lvspudqs9mgffhs1kll7vbi40bhs@4ax.com...
> On Wed, 20 Jul 2005 15:56:04 -0400, Walter Maxwell <walt@w2du.com>
> wrote:
>
> >They'd kill each other to get
> >their hands on you for their nightly shows, and they could fire all
> >their present writers.
>
> Thanx Walt,
>
> I'd be hard pressed for material without the stooge.
>
> 73's
> Richard Clark, KB7QHC

3073. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 21:47:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t4htd1hcj5ooqm5lap0rqd4572j4ihmean@4ax.com>
Source record: 73038

On Wed, 20 Jul 2005 17:28:03 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>It takes at least two stooges interacting to be funny.

Now taking applications.

Hi Fred,

It takes a condition called irony-deficit disorder to wade into these
things and say that. ;-)

Let's just give an example of the straight-man's lead into the joke:

"I flipped the switch to a 100W light Bulb.
What direction vector is the optical power?"

The Scientist would ask for this in standard notation, but we all know
that he isn't going to get that - hence, the subject from the
beginning is a joke. Now, only to wait for the punchline:
(drumroll) Ta-ta-dum....

73's
Richard Clark, KB7QHC

3074. Re: Folded dipole for shortwave

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-20 22:06:30 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <veitd1l6lq8ubdi0jvrvpmt84jvt066159@4ax.com>
Source record: 73039

On Wed, 20 Jul 2005 16:17:36 GMT, "Gio" <8681invalid@mynewsgate.net>
wrote:

>I am looking for a folded dipole to be used on shortwave frequencies,
>and I have "room" for up to 50 meters (160 ft) lenght.
>Does someone know if there is something already built to be purchased?
>And where?
>With many thanks and kindest regards.
>Gio'

Do a search for Alpha Delta. They make a variety of antennas, included
those specialized for shortwave reception. Very rugged construction.
Reasonable prices. (Used to have one of their SW slopers -- good
antenna.)

bob
k5qwg

3075. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 01:13:21 UTC
From: richardharrison@webtv.net
Message-ID: <19856-42DEF6B1-51@storefull-3255.bay.webtv.net>
Source record: 73040

Richard Clark wrote:
"Any introduction of direction is purely an invention unsupported by references so far presented."

I referred to Terman`s 1955 edition, page 90, where Terman wrote:
"Where the load end of the line is short-circuited, that is Eload=0, reference to Sq. (4-14) shows the reflecction coefficient has the value -1.0 on an angle of 0-deg. = +1.0 on an angle of 180-deg. As in the open-circuited case, the reflected wave has an amplitude equal to the amplitude of the incident wave. However, the reflection now takes place with reversal in phase of the voltage and without change in phase of the current."

Of course, in the case of the open=circuited load, the reflection takes place with reversal in phase of the current and without change in phase of the voltage.

Terman`s writing has stood siuccessfully unchallenged for at least 50 years.

Best regards, Richard Harrison, KB5WZI

3076. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 01:48:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42defff5$1_1@spool9-west.superfeed.net>
Source record: 73041

Jim Kelley wrote:
> I think I'll stick with just saying that power, as a scaler quantity
> does not have direction and cannot be negative.

So what is E^ x H^?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3077. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 01:51:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df00bc$1_1@spool9-west.superfeed.net>
Source record: 73042

Ian White G/GM3SEK wrote:

> Cecil Moore wrote:
>> The Bird is indirectly measuring [(E^for) x (H^for)] as forward
>> power and [(E^ref) x (H^ref)] as reflected power.
>
> That statement bears no physical relationship to how the instrument
> actually works (and "indirectly" won't get you off the hook either).

I was hoping someone would assert such. E^for is proportional to
Vfor which is what the Bird samples. H^for is proportional to
Ifor which is what the Bird samples. Within a 50 ohm environment
that yields forward power. Same for reflected power.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3078. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 02:13:42 UTC
From: richardharrison@webtv.net
Message-ID: <23392-42DF04D6-178@storefull-3253.bay.webtv.net>
Source record: 73043

Richard Clark wrote:
"The very first formula from the Standard Handbook for Electrical Engineers, Section 11. Power Transmission, Electrical Calculsations:
I = P/E (1) "

Unless a d-c transmission is specified, that`s wrong.

P=EI cos theta, where theta is the angle between E & I. For 0-deg. coa theta=1.

Cos theta is synonymous with the "power factor" of a single phase circuit.

I`m relying on memory which is good for old things.

Best regards, Richard Harrison, KB5WZI

3079. A sad day? Or, a reprieve for amateur radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 02:23:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XGDDe.137$D52.2096290@news.sisna.com>
Source record: 73044

I found this link:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-143A1.doc
under a post in rec.radio.amateur.policy and titled "A Sad Day."

Hopefully, it is in time to save amateur radio...

John

3080. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 03:06:35 UTC
From: richardharrison@webtv.net
Message-ID: <14291-42DF113B-169@storefull-3257.bay.webtv.net>
Source record: 73045

Richard Clark jested:
"I flipped the switch to a light bulb. What direction is the optical power?"

Seriously, away from and toward are directions. We expect a light bulb to be an energy source. If it becomes a sink it has a negative effect.

From John E. (Here`s Johnny!) Cinningham`s "The Complete Broadcast Antenna Handbook", page 243:
"Again, if the base impedance is a negative number, this merely means that energy is flowing out of a tower (toward the transmitter) instead of into it (from the transmitter)."

Sign is certainly used to indicate the direction of energy movement or the same thing, power flow.

Best regards, Richard Harrison, KB5WZI

3081. EF Johnson Matchstick Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 03:19:45 UTC
From: Radiio73 <bkgarcia@comcast.net>
Message-ID: <GPudnWvgjt8EiULfRVn-og@comcast.com>
Source record: 73046

Do you have any antenna parts (sections, insulators) for the old EF Johnson Matchstick vertical antenna? I'm trying to rebuild one with original parts.

Thanks, Bert N8NN

3082. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 03:24:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2h3ud1lgn318tgcq0mh3mj1ptarfqbuash@4ax.com>
Source record: 73047

On Wed, 20 Jul 2005 21:13:42 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"The very first formula from the Standard Handbook for Electrical
>Engineers, Section 11. Power Transmission, Electrical Calculsations:
> I = P/E (1) "
>
>Unless a d-c transmission is specified, that`s wrong.

Hi Richard,

You may disagree with the contents from this tome, but the citation is accurate.

>P=EI cos theta, where theta is the angle between E & I. For 0-deg. coa
>theta=1.

The section preceding distribution is Section 10, Power Plants, which devotes Para. 722 Inherent regulation; Para. 724 The Load Factor; Para. 725 Load Fluctuation; Para. 726 The Power-Factor. Sections10-795 through 836 is given over to AC switching.

And of course casting back towards the beginning of the Handbook we find ourselves at Section 7, Alternating Current Generators which covers Power-Factor, Slip, Stalling torque.... The treatment later in the section covers representative efficiencies in Polyphase equipment up to 1000HP well into the 90's of percent. All may note that this is an accuracy that is still 10 times better than the "Can you solve this" math offered here.

Returning to Section 11, Power Transmission; coverage there includes Power-Factor Correction. Para. 95, in part:
The per cent, quadrature current required for unity power-factor [which renders the formula responded to as accurate] at the receiver may be determined from Fig. 14, or may be calculated for a three-phase system as follows.... [which I won't go into but covers power-factors from 60% to 95%].

There is still no requirement to fill the need for a vector of direction.

This relates, in part, to my service in the Power Industry designing power grid control systems and testers (SCADA).

73's
Richard Clark, KB7QHC

3083. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 03:35:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mc5ud11qoca4gnlbbba86pbv0ns2j81sgh@4ax.com>
Source record: 73048

On Wed, 20 Jul 2005 20:13:21 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Of course, in the case of the open=circuited load, the reflection takes
>place with reversal in phase of the current and without change in phase
>of the voltage.
>
>Terman`s writing has stood siuccessfully unchallenged for at least 50
>years.

Hi Richard,

Where does he equate phase with direction? If I observe a negative phase shift in an otherwise pure cycle on wire-pair, does Terman teach that Power is flowing backwards?

Having used Terman's work as the basis for the course of instruction in the Navy, no such concept has ever been offered. 50 years after his last opus, and several years after his death is rather late to start claiming Terman missed the train - and should have said it.

I can appreciate that you have missed the disjoints of testimony that have lead from offering pi = 22/7 to the conclusion that the earth is flat, but don't get caught in responding to the flurry of uncorrelated statements offered to fill the void of accurate reporting.

73's
Richard Clark, KB7QHC

3084. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 03:41:15 UTC
From: richardharrison@webtv.net
Message-ID: <16854-42DF195B-190@storefull-3258.bay.webtv.net>
Source record: 73050

Ian White, GM3SEK wrote:
"That statement bears no physical relationship to how this instrument actually works---."

We`ve been through detailled explanations of how a Bird works. Cecil did not need to do another. The wattmeter takes actual samples of the voltages and currents at any single point on the coax. These are representative of the powers which are moving toward the load and away from the load. Careful calibration allows indicarions in watts.

An electric current through a speedometer is calibrated to indicate miles per hour. It works. So does the Bird Wattmeter.

Best regards, Richard Harrison, KB5WZI

3085. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 03:51:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v86ud11pnb900bohtl87sp5ct433a0qhf8@4ax.com>
Source record: 73049

On Wed, 20 Jul 2005 22:06:35 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>"I flipped the switch to a light bulb. What direction is the optical
>power?"
>
>Seriously, away from and toward are directions. We expect a light bulb
>to be an energy source. If it becomes a sink it has a negative effect.
>
Hi Richard,

We are speaking of a load, often times an observer for optics, not a source.

Then there is a serious answer to the observer standing in the field of illumination and noting that there is power towards him, and power away from him. This is a very ordinary occurence with a light bulb that is within everyones common experience.

The light bulb in a room illuminates all the walls, the ceiling, and the floor. The observer occupies some portion of that 3-space and can confirm the "away from and toward directions." Still and all, the two powers do not vectorally add to zero. If this is confounded by stating that there are reflections, remove all such artifices and do this in the void of space. The net result is that there is still no vectoral addition that blacks out the light bulb simply because you can exhibit "away from and toward directions."

There is still the mathematical representation of the direction using standard notation if you want to take a swing at that. Again, what is the vector of direction for the light bulb? Absurdities abound in this discovery.

73's
Richard Clark, KB7QHC

3086. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 04:43:38 UTC
From: richardharrison@webtv.net
Message-ID: <16854-42DF27FA-196@storefull-3258.bay.webtv.net>
Source record: 73051

Richard Clark wrote:
"Where does he (Terman) equate phase with direction?"

From page 90 of Terman`s 1955 edition:
Bottom of the page; "Transmission Line with Short-circuited Load.
Where the load end of the line is short-circuited, that is ZL=0,
reference to Eq.(4-14) shows the reflection coeficient has a value of
-1.0 on an angle of 0-deg. = +1.0 on an angle of 180-deg. As in the
open-circuited case, the reflected wave has an amplitude equal to the
amplitude of the incident wave. However, the reflection takes place with
reversal in phase of voltage and without change in phase of the
current."

I`m a lousy typist but tried to make an exact copy of part of the page.
I assume you agree the incident and reflected waves travel in opposite
directions in Terman`s example.

Best regards, Richard Harrison, KB5WZI

3087. Re: A sad day? Or, a reprieve for amateur radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 05:00:52 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1121922052.401520.175030@g44g2000cwa.googlegroups.com>
Source record: 73052

John Smith wrote:
> I found this link:
> http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-143A1.doc
> under a post in rec.radio.amateur.policy and titled "A Sad Day."
>
> Hopefully, it is in time to save amateur radio...

This NG is about antennas, is is not about "saving amateur radio" so
take your crap back to RRAP where it belongs and quit surfing for
attention here.

> John

w3rv

3088. Re: A sad day? Or, a reprieve for amateur radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 05:23:54 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <QjGDe.160$u07.2620512@news.sisna.com>
Source record: 73053

Brian Buzzoff:

Wow, I just checked, imagine that, now how could I have missed that
fact, damn! ROFLOL!!!

You kook!

John

"Brian Kelly" <kelly@dvol.com> wrote in message
news:1121922052.401520.175030@g44g2000cwa.googlegroups.com...
>
>
> John Smith wrote:
>> I found this link:
>> http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-143A1.doc
>> under a post in rec.radio.amateur.policy and titled "A Sad Day."
>>
>> Hopefully, it is in time to save amateur radio...
>
> This NG is about antennas, is is not about "saving amateur radio" so
> take your crap back to RRAP where it belongs and quit surfing for
> attention here.
>
>> John
>
> w3rv
>

3089. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 06:10:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1keud1tnfpi55ntvp0ff18tpi5to8h1rmn@4ax.com>
Source record: 73054

On Wed, 20 Jul 2005 23:43:38 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>I`m a lousy typist but tried to make an exact copy of part of the page.
>I assume you agree the incident and reflected waves travel in opposite
>directions in Terman`s example.

Hi Richard,

Certainly, but nowhere does Terman instruct us that this vector is a direction, it is a phasor. The coincidence of direction is imposed by the termination, not the math - hence the math is exclusive of such representations of direction.

However, let's discard that difference as a triviality to examine the original proposition thus:
To obtain a complete cancellation it requires identical powers with identical but opposing phases. You would agree that without this condition there is no complete cancellation?

73's
Richard Clark, KB7QHC

3090. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 06:24:36 UTC
From: richardharrison@webtv.net
Message-ID: <16855-42DF3FA4-68@storefull-3258.bay.webtv.net>
Source record: 73055

Richard Clark wrote:
"Again, what is the vector of direction for the light bulb?"

Electromagnetic waves include light and heat whicjh have extremely short wavelengths. The light bulb may not be a perfect point source but the waves travel away from the source with the velocity of light and consist of electric and magnetic fields that are at right angles to each other and also at right angles to the direction of travel. Wave energy is divided 50-50 between the electric and magnetic fields.

Many frequencies (colors) make up the radiation from a light bulb. Much more heat is radiated than visible light.

In a radio wave the essential properties are frequency, intensity, direction of travel, and plane of polarization, For the constituents of light bulb radiation, it is the same.

300 million m/sec is the velocity and this equals the product of frequency X wavelength. Emissions of a light bulb are of extremely high frequency but of extremely short wavelenggth too.

All points on a wavefront are equidistant from the source and emerged simultaneouslly so they share the same phase.. From a point source light bulb we would be in the far field.

The field is transverse. The power flow (J.D. Kraus` words), or Poynting vector, is entirely radial.

Best regards, Richard Harrison, KB5WZI

3091. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 06:39:13 UTC
From: richardharrison@webtv.net
Message-ID: <16854-42DF4311-202@storefull-3258.bay.webtv.net>
Source record: 73056

Richard Clark wrote:
"To obtain a complete cancellation it requires identical powers with
identical but opposing phases."

Yes. That is why closely spaced balanced transmission lines have no
significant radiation.

Best regards, Richard Harrison, KB5WZI

3092. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 07:02:43 UTC
From: Ian White G/GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <TvSAn7DTi03CFA6b@ifwtech.co.uk>
Source record: 73057

Cecil Moore wrote:
>Ian White G/GM3SEK wrote:
>
>> Cecil Moore wrote:
>>> The Bird is indirectly measuring [(E^for) x (H^for)] as forward
>>> power and [(E^ref) x (H^ref)] as reflected power.
>> That statement bears no physical relationship to how the instrument
>>actually works (and "indirectly" won't get you off the hook either).
>
>I was hoping someone would assert such. E^for is proportional to
>Vfor which is what the Bird samples. H^for is proportional to
>Ifor which is what the Bird samples. Within a 50 ohm environment
>that yields forward power. Same for reflected power.

The Bird does not generate a vector cross product. There is nothing
inside the instrument that's capable of doing such a thing.

The hardware displays readings of detected RF voltages - not power. The
forward/reflected power calibration on the meter scale is an external
calculation, based on transmission line theory.

You know exactly how instruments like the Bird work, because at various
times you have posted accurate descriptions here. Your enthusiasm for
your pet theory is making you distort the truth.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3093. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 07:57:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cdkud1hb67omacfh8go9bnuoslg7go7u9s@4ax.com>
Source record: 73058

On Thu, 21 Jul 2005 01:24:36 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Many frequencies (colors) make up the radiation from a light bulb. Much >more heat is radiated than visible light.

Hi Richard,

Actually that is quite wrong. IR is not heat, it is radiation. Heat, actually phonons, constitutes something less that 10% of the conversion of electrical power in a light bulb. Lest we take off on the tangent of IR bulbs being used for heating, it is the load of that IR radiation (directed upon a dissipative surface) that renders phonons, otherwise IR is radiated in exactly the same manner as any radiation. There are any number of simple, practical tests to confirm this. For one, IR passes through most glass without heating it. You have to go out of your way to obtain IR blocking glass (which doesn't even absorb that much either). There are some IR wavelengths that go right through water, and others that are entirely absorbed.

However, this is not about heat, nor IR, nor even the loss of a principle vector property, its angle notation, or even the whole absence of the vector property from the solution to wave interference powers. Rather, it is about the facade of complete cancellation

Entirely ignoring all these other trivial details, that cancellation is incomplete in and of necessity for real or imagined initial conditions. This is revealed in any mathematical solution, and certainly by examination.

73's
Richard Clark, KB7QHC

3094. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 08:29:50 UTC
From: Ian White G/GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <g8p8TxJ+z13CFAMC@ifwtech.co.uk>
Source record: 73059

Richard Harrison wrote:
>Ian White, GM3SEK wrote:
>"That statement bears no physical relationship to how this instrument
>actually works---."
>
>We`ve been through detailled explanations of how a Bird works. Cecil did
>not need to do another. The wattmeter takes actual samples of the
>voltages and currents at any single point on the coax. These are
>representative of the powers which are moving toward the load and away
>from the load. Careful calibration allows indicarions in watts.
>
>An electric current through a speedometer is calibrated to indicate
>miles per hour. It works. So does the Bird Wattmeter.

The difference is that nobody is trying to create a complete distortion
of the way a speedometer works.

I am not criticizing the Bird 43 at all. I own one, and use it
regularly. It is a clever concept, well executed and with lots of good
features.

My objection is against the "other Bird 43" - not the real hardware, but
a piece of vaporware that is called a "Bird" but only exists in
someone's imagination. Somehow, this imagined instrument can truly
measure how much power is flowing in the forward and reverse
directions, and those measurements can be used to "prove" some point
about transmission line theory.

The real-life Bird 43 cannot do that. Its indications of "forward and
reflected watts" are only printing on the meter scale. They come from
calculations that are totally dependent on transmission line theory, so
they cannot be used to prove anything *about* that subject.

You cannot prove a theory by using evidence that depends on the theory
you're trying to prove. That is just simple logic.

The real Bird 43 is a good and useful piece of test equipment... but
nobody should buy that "other" one.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3095. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 11:48:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df8cb2$1_1@spool9-west.superfeed.net>
Source record: 73061

Richard Clark wrote:
> The net result is that there is still no
> vectoral addition that blacks out the light bulb simply because you
> can exhibit "away from and toward directions."

A light bulb does not emit coherent light so your
statement is 100% irrelevant to coherent RF sources
and/or coherent laser sources.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3096. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 11:53:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df8da7$1_1@spool9-west.superfeed.net>
Source record: 73062

Richard Harrison wrote:
> I`m a lousy typist but tried to make an exact copy of part of the page.
> I assume you agree the incident and reflected waves travel in opposite
> directions in Terman`s example.

All part of the reflection model. Ramo & Whinnery go so far
as to present separate Poynting vectors for forward and
reflected powers where Pz-/Pz+ is the power reflection
coefficient.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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3097. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 12:05:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df909f$1_1@spool9-west.superfeed.net>
Source record: 73063

Richard Clark wrote:
> To obtain a complete cancellation it requires identical powers with
> identical but opposing phases. You would agree that without this
> condition there is no complete cancellation?

What you have described is exactly what happens at a
Z0-match point.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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3098. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 12:10:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df91b5$1_1@spool9-west.superfeed.net>
Source record: 73064

Richard Harrison wrote:
> All points on a wavefront are equidistant from the source and emerged
> simultaneouslly so they share the same phase.. From a point source light
> bulb we would be in the far field.

The big difference is that a light bulb doesn't emit
coherent light. Coherence is a requirement for
superposition and wave cancellation. The light bulb
example is simply irrelevant to what happens with
a single frequency coherent RF transmitter or a
single frequency coherent laser.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3099. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 12:23:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df94b0$1_1@spool9-west.superfeed.net>
Source record: 73065

Ian White G/GM3SEK wrote:
> The Bird does not generate a vector cross product. There is nothing
> inside the instrument that's capable of doing such a thing.

Didn't say it did, Ian. Using valid assumptions like E/H=Z0
and E-field forward + E-field reflected = E-field total,
the multiplication is performed by a combination of phasor
addition, linear addition, and non-linear scaling. It is
an analog calculator.

> The hardware displays readings of detected RF voltages - not power. The
> forward/reflected power calibration on the meter scale is an external
> calculation, based on transmission line theory.

Yes, based on samples of a voltage proportional to the E-field
and samples of a current proportional to the H-field. Given the
basic assumptions of the Bird, it can be proven mathematically
that the Bird is displaying E-field x H-field for forward power
if the slug arrow is pointed in the forward direction and
displaying E-field x H-field for reflected power if the slug
arrow is pointed in the reflected direction.

> You know exactly how instruments like the Bird work, because at various
> times you have posted accurate descriptions here. Your enthusiasm for
> your pet theory is making you distort the truth.

The Poynting Vector is ***NOT*** my pet theory, Ian, it is
mainstream RF engineering.

All I am saying is that the Bird samples a voltage proportional
to the E-field and samples a current proportional to the H-field.
It then performs analog calculations on those parameters.
If you think you can disprove that statement, be my guest.
--
73, Cecil http://www.qsl.net/w5dxp

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3100. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 12:29:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42df961c$1_1@spool9-west.superfeed.net>
Source record: 73066

Richard Clark wrote:
> Entirely ignoring all these other trivial details, that cancellation
> is incomplete in and of necessity for real or imagined initial
> conditions.

That's not true, Richard. If zero reflected energy reaches the
source in a system with reflections, a Z0-match has been
achieved. For a Z0-match to be achieved, 100% wave cancellation
is necessary. For all the nearly perfectly Z0-matched systems
out there, near perfect wave cancellation of reflected waves
has been achieved.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3101. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 13:07:16 UTC
From: Ian White G/GM3SEK <g3sek@ifwtech.co.uk>
Message-ID: <7UX65yYE453CFAsg@ifwtech.co.uk>
Source record: 73067

Cecil Moore wrote:
>Ian White G/GM3SEK wrote:
>> The Bird does not generate a vector cross product. There is nothing
>>inside the instrument that's capable of doing such a thing.
>
>Didn't say it did, Ian. Using valid assumptions like E/H=Z0
>and E-field forward + E-field reflected = E-field total,
>the multiplication is performed by a combination of phasor
>addition, linear addition, and non-linear scaling.

As you begin to admit when challenged, the instrument itself does nothing but add or subtract RF voltages derived by sampling the line voltage and current. No multiplication is involved.

The calibration to indicate power is performed ENTIRELY on the meter scale. But the instrument didn't do the multiplication or the I^2R calculation, so it didn't actually measure power.

>It is
>an analog calculator.
>
No, it isn't. The guy who drew the meter scale did the power calculation. The instrument itself is incapable of multiplying anything.

>
>All I am saying is that the Bird samples a voltage proportional
>to the E-field and samples a current proportional to the H-field.
>It then performs analog calculations on those parameters.
>If you think you can disprove that statement, be my guest.

Ah, the old bait and switch trick.

In your earlier statement you said it "performs multiplication", which is totally false. But for your final paragraph you've switched it to "analog calculations", which is more general and thus partly true; and then you invite me to disprove that.

Cecil, I don't think you even realise you're pulling these dishonest debating tricks... but after too many years to count, I just don't have any more time for them.

<plonk>

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3102. Re: A sad day? Or, a reprieve for amateur radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 14:41:57 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <uvcvd11q058lh80qi9mip556du31d81kb4@4ax.com>
Source record: 73068

On Wed, 20 Jul 2005 19:23:46 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>I found this link:
>http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-143A1.doc
>under a post in rec.radio.amateur.policy and titled "A Sad Day."
>
>Hopefully, it is in time to save amateur radio...
>
>John
>

Hams do morse code every day, regardless of what the fcc sez... it's
not as if it's being outlawed

bob
k5qwg

3103. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 14:47:12 UTC
From: richardharrison@webtv.net
Message-ID: <27953-42DFB570-72@storefull-3254.bay.webtv.net>
Source record: 73069

Richard Clark wrote:
"Actually that is quite wrong. IR is not heat."

He got me. According to Lincoln`s Industrial Reference, from a 100-watt MAZDA lamp the amount of energy emanating as light is 10%, and as infrared is 72%. The rest is lost to gas end loss, etc. The loss would be only 18% You can`t see infrared. The eye is most sensitive to a yellow-green color around 5550 Angstrom units. Lamps are made to emphasize white or "daylight" which is rated at about 2400 to 3100 degrees Kelvin.

Best regards, Richard Harrison, KB5WZI

3104. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 15:05:50 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <iRODe.19462$NU2.16335@newssvr13.news.prodigy.com>
Source record: 73070

Ian White G/GM3SEK wrote:
> Cecil Moore wrote:
>
>> Ian White G/GM3SEK wrote:
>>
>>> The Bird does not generate a vector cross product. There is nothing
>>> inside the instrument that's capable of doing such a thing.
>>
>>
>> Didn't say it did, Ian. Using valid assumptions like E/H=Z0
>> and E-field forward + E-field reflected = E-field total,
>> the multiplication is performed by a combination of phasor
>> addition, linear addition, and non-linear scaling.
>
>
> As you begin to admit when challenged, the instrument itself does
> nothing but add or subtract RF voltages derived by sampling the line
> voltage and current. No multiplication is involved.
>
> The calibration to indicate power is performed ENTIRELY on the meter
> scale. But the instrument didn't do the multiplication or the I^2R
> calculation, so it didn't actually measure power.
>
>> It is
>> an analog calculator.
>>
> No, it isn't. The guy who drew the meter scale did the power
> calculation. The instrument itself is incapable of multiplying anything.
>
>>
>> All I am saying is that the Bird samples a voltage proportional
>> to the E-field and samples a current proportional to the H-field.
>> It then performs analog calculations on those parameters.
>> If you think you can disprove that statement, be my guest.
>
>
> Ah, the old bait and switch trick.
>
> In your earlier statement you said it "performs multiplication", which
> is totally false. But for your final paragraph you've switched it to
> "analog calculations", which is more general and thus partly true; and
> then you invite me to disprove that.
>
> Cecil, I don't think you even realise you're pulling these dishonest

> debating tricks... but after too many years to count, I just don't have
> any more time for them.
>
> <plonk>
>
>
>

Another day, another plonk. Repent! Cecil, before everyone plonks
you.
73,
Tom Donaly, KA6RUH

3105. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 15:28:03 UTC
From: richardharrison@webtv.net
Message-ID: <19855-42DFBF03-224@storefull-3255.bay.webtv.net>
Source record: 73071

Ian White, G3SEK wrote:
"In your previous statement you said it "performs multiplication" which is totally false."

It gives the right answers so it is not false.

Multiplication is the process of finding the product resulting from the addition of a given number by a certain number of times as there are units in another number.

It`s the product that counts, not the way you get there. An amplifier with a certain gain is fine. A lever that trades force for distance is fine. A digital machine, having no hardwired multiply and divide circuit and only works with ones and zeros is fine.

The only important thing is you supply representative inputs to a device and it gives you the correct product of the numbers as its outpot.

Best regards, Richard Harrison, KB5WZI

3106. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 16:01:48 UTC
From: richardharrison@webtv.net
Message-ID: <19855-42DFC6EC-226@storefull-3255.bay.webtv.net>
Source record: 73072

Cecil. W5DXP wrote:
In a transmission line, there is only one "new direction", the opposite direction."

Tes, and there is no cumulative long-term buildup on the line. We could sense an accumulation. The energy in the steady state is lost on the line or dissipated in lhe load or source.

Best regards, Richard Harrison, KB5WZI

3107. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 16:20:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mvhvd11f19top9j4u3pls4hlj7j7ua371s@4ax.com>
Source record: 73073

straightman:
>> The net result is that there is still no
>> vectoral addition that blacks out the light bulb simply because you
>> can exhibit "away from and toward directions."

[.... Ta-da-dum!]

stooge:
>A light bulb does not emit coherent light so your
>statement is 100% irrelevant to coherent RF sources
>and/or coherent laser sources.

straightman:
And if that source WERE entirely coherent?

[Ba-Boom!]

scientist (wearing white lab coat steps from behind curtain):
The observer would still perceive as much light;
and absolutely none of it would destructively/constructively
interfere.

Simply because the source can exhibit "away from and toward
directions" is wholly immaterial. Direction vectors and power
have nothing to do here.

[voice over and closing music]:
Ladies and gentlemen. The experiments performed here
should not be attempted at home. Further, please do not
plonk the stooge on stage as his performance is part of our
audience's instruction and distracts their attention.

We thank your patronage and look forward to more skits. :-)

3108. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 17:24:32 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbon8dkag1@news.service.uci.edu>
Source record: 72975

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> I think I'll stick with just saying that power, as a scaler quantity
>> does not have direction and cannot be negative.
>
>
> So what is E^ x H^?

According to Born and Wolf, it's "an abstraction that introduces a certain degree of arbitrariness". On the other hand it's integral over a volume is described as something from which "no unambiguous conclusion can be drawn". So, is that what you're hangin' your hat on, there Cecil?

Or perhaps you would have preferred my response to be "it's whatever you sez it is, massa mensa".

ac6xg

3109. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 17:38:11 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dboo2bkqa1@news.service.uci.edu>
Source record: 72976

Cecil Moore wrote:

> Richard Clark wrote:
>
>> To obtain a complete cancellation it requires identical powers with
>> identical but opposing phases. You would agree that without this
>> condition there is no complete cancellation?
>
>
> What you have described is exactly what happens at a
> Z0-match point.

Except that power and energy, like mass and time, aren't things which
'cancel'. Fields on the other hand can superpose, interfere, and cancel.

73, ac6xg

3110. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 17:45:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <erivd11hfo2ie6nmd6g5cgg52mur4q7iom@4ax.com>
Source record: 73074

On Thu, 21 Jul 2005 09:47:12 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"Actually that is quite wrong. IR is not heat."
>
>He got me. According to Lincoln`s Industrial Reference, from a 100-watt
>MAZDA lamp the amount of energy emanating as light is 10%, and as
>infrared is 72%. The rest is lost to gas end loss, etc. The loss would
>be only 18% You can`t see infrared. The eye is most sensitive to a
>yellow-green color around 5550 Angstrom units. Lamps are made to
>emphasize white or "daylight" which is rated at about 2400 to 3100
>degrees Kelvin.

Hi Richard,

Well, your ability to research the topic continues well in advance of other's effort. Some may note the congruence of the specified emission peak and my statements earlier choosing exactly this same wavelength. This is called the eye's photopic response, but at night it shifts slightly to become more sensitive in its scotopic response. This is rod vision and occurs around the 510nM (5100ï¿½) wavelength or a pale blue.

The unintended consequence of this is that it suppress the eye's ability to perceive red light at night (why you see them used in dark rooms and WWII movies) which is something of a bummer for traffic lights and taillights (they have to be brighter than they would be normally).

Also, this discussion bears upon the answer to
"What is the wavelength of Glare?"
that has remained undiscovered by binary engineers. I bet our Readers can catch this clue. :-)

73's
Richard Clark, KB7QHC

3111. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 18:13:23 UTC
From: drwxr-xr-x <nobody@frontier.net>
Message-ID: <slrnddvpe3.3kv.bit-bucket@shell.config.com>
Source record: 72977

On Wed, 20 Jul 2005 00:09:29 -0400, Jennie wrote:
> drwxr-xr-x
>
> In outlook express go to tools options and then the read tab... Click the
> button that say read all messages in text...All the major mail reader should
> have the same function somewhere...

First:
http://en.wikipedia.org/wiki/Top_posting

Second:
You are addressing the wrong poster.

3112. Re: Affordable HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 18:20:19 UTC
From: drwxr-xr-x <nobody@frontier.net>
Message-ID: <slrnddvpr2.3kv.bit-bucket@shell.config.com>
Source record: 72978

On Wed, 20 Jul 2005 13:27:39 GMT, Bob Miller wrote:
>
> Well, the civilian Humvee started out in the $79M range, and I believe
> costs more now. Hard to believe the gov't would get them at 1/3 the
> civilian cost. Think I read up-armored Humvees in Iraq are in the
> $130M range.

Innumeracy alert!

3113. Re: Air Force One coax ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 18:32:56 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dbopt1bml1@ctb-nnrp2.saix.net>
Source record: 72979

"Ian White G/GM3SEK" <g3sek@ifwtech.co.uk> wrote in message
news:9v3L3ObFBS3CFA+h@ifwtech.co.uk...
> Don Baker wrote:
>>The recent popularity of a new antenna cable called Skyhighgain Coax has
>>created a safety problem for users and a nightmare for firefighters. SHGC
>>was developed theoretically by Tricenters Experimental Laboratories, Inc.
>>as a signal-boosting element for use in radio and television transmission
>>lines. Scientists at TELI discovered that when a bias voltage is applied
>>to the special material used to make SHGC the effect was incredible.
>>Instead of simply reducing signal loss, the signal strength increased!
>>
>>Amplification of RF (radio-frequency) signals in the new coaxial
>>transmission cable was actually greater than 3 db (decibels) per meter per
>>meter. (Read that again.)
>
> LEGAL WARNING: positive gain coax was patented in the late 1980s by the
> muTek company in Britain, under the brand name "Gainiax".
>
> Following established precedent in this newsgroup, unauthorized users of
> this patented technology will be pursued with the full vigour of the law.
>
> muTek advertised this new product in an April RadCom... and received
> several serious inquiries.
>
> Unfortunately the factory did not survive the first production run. The
> last words heard over the phone were "You want the ends of these reels
> shorted together?"
>
>
> --
> 73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

Punishment for breaking Ohm's law is severe and instantaneous.
There is no higher court.to hear any appeal.
You have been warned!

3114. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 18:45:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <43SDe.222$J03.4131976@news.sisna.com>
Source record: 72980

year ago, when usenet clients were very limited and programmers few,
there may have been an argument for bottom posting...

... no longer is that true, time for someone to rewrite all the usenet
etiquette and tutorials...

Hams are of a "religious bent", they want to cast all recommendations
as "laws." LOL!

Growup and practice some free-thinking!

John

"drwxr-xr-x" <nobody@frontier.net> wrote in message
news:slrnddvpe3.3kv.bit-bucket@shell.config.com...
> On Wed, 20 Jul 2005 00:09:29 -0400, Jennie wrote:
>> drwxr-xr-x
>>
>> In outlook express go to tools options and then the read tab...
>> Click the
>> button that say read all messages in text...All the major mail
>> reader should
>> have the same function somewhere...
>
> First:
> http://en.wikipedia.org/wiki/Top_posting
>
> Second:
> You are addressing the wrong poster.

3115. Quagi for 446 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 20:20:04 UTC
From: rmccomb <rmccomb@adelphia.net>
Message-ID: <suidnTeiNNbknn3fRVn-iQ@adelphia.com>
Source record: 72981

I have recently built the identical twin to this quagi for 446 pictured here
http://users.adelphia.net/~rmccomb/images/100_0532.jpg
from the plans here:
http://commfaculty.fullerton.edu/woverbeck/quagi.htm
I understand the spacing and am curious how to wire the two together???
You may have read my old post. I am using 75 ohm line as it is all I
have available currently.
Any ideas will be greatly appreciated.

Soon to be liscensed
-Ryan

3116. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 21:17:13 UTC
From: richardharrison@webtv.net
Message-ID: <3304-42E010D9-15@storefull-3251.bay.webtv.net>
Source record: 72982

Richard Clark wrote:
"The unintended consequence of this (exposure to white light) is that it suppresses the eye`s ability to perceive red light at night (why you see them (red lights) used in dark rooms and WWII movies--..)"

I was in WW-2 and confirm that aboard my ship our chartroom (the compartment with an opening tp tje outside) indeed was illuminated with red lamps so that we would not be blind when we stepped outside. We were told that we used our cones in the daytime and our rods at night. How could I ever have remembered that?

From Lincoln`s Reference: Glare is said to reduce the ability to see, and hastens fatigue. Glare is wasted since it lowers the effectiveness of useful light. Glare is high light energy over a measurable period of time from above normal angles of vision (30 to 90-degrees above the vertical). I think this means you don`t want a bright light shining in your eyes. It`s glaring and impairs vision for awhile.

I wasn`t a signalman but I noticed our signaling light was fitted at night with a red filter called the "Nan-gear". Our phonetic alphabet in those days went: able, baker, charlie, dog---nancy. I suppose Nan was short for nighttime gear. I speculate it was hoped that the enemy would step out of white lighted quarters and not notice our red signal beams. So much for red lights and glare.

It probably wouldn`t work, but you might say to the policeman: I didn`t see the red light. The white glare desensitized my eyes!

Best regards, Richard Harrison, KB5WZI

3117. Re: Quagi for 446 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 21:59:32 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <8VUDe.1734$Fk4.1510@newssvr21.news.prodigy.com>
Source record: 72983

Ryan- one thing to keep in mind about this Quagi antenna is that, Wayne designed it for weak signal work (read SSB/CW, at 432-435 (oscar) frequency range . Yagis, and presumably yagi- quads are not noted for great bandwidth . The elements for this will be SHORTER than the ones for 432! Also, that you want it for 446 MHz, tells me that you want to operate on FM, which is Vertically polarized (yagi elements in a up-down direction) the Original quagi was designed tor Horizontal polarization (elements left-right!) , meaning that the antenna needs to be flipped 90 degrees! You might have to find a webpage, or a design article for the quagi , as it is used with an FM rig. To NOT turn this 90 degrees, would actually caus a loss of 20 dB (1/100th the power), not gain! They will work on fm, but need to take this into consideration. Hope this helps, and BTW, the reasons that fm uses Vertical Polarization has to do with the ease of omni directional antennas, while, horizontal , for weak signal work has to do with lower noise levels on recieved signals, and the need for mazimizing the signal strength of weak signals Hope this helps, Jim NN7K

rmccomb wrote:
> I have recently built the identical twin to this quagi for 446 pictured
> here
> http://users.adelphia.net/~rmccomb/images/100_0532.jpg
> from the plans here:
> http://commfaculty.fullerton.edu/woverbeck/quagi.htm
> I understand the spacing and am curious how to wire the two together???
> You may have read my old post. I am using 75 ohm line as it is all I
> have available currently.
> Any ideas will be greatly appreciated.
>
>
> Soon to be liscensed
> -Ryan

3118. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 21:59:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1d514$42e01af5$97d55ac3$13929@ALLTEL.NET>
Source record: 72984

Nan gear was infra-red, not red. The purpose was to be non detectable
without special equipment.

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3304-42E010D9-15@storefull-3251.bay.webtv.net...
> Richard Clark wrote:
>
> I wasn`t a signalman but I noticed our signaling light was fitted at
> night with a red filter called the "Nan-gear". Our phonetic alphabet in
> those days went: able, baker, charlie, dog---nancy. I suppose Nan was
> short for nighttime gear. I speculate it was hoped that the enemy would

3119. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 22:27:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pi70e19mfpa8q306cq6iug173a57sro66t@4ax.com>
Source record: 72985

On Thu, 21 Jul 2005 16:17:13 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>From Lincoln`s Reference: Glare is said to reduce the ability to see, >and hastens fatigue. Glare is wasted since it lowers the effectiveness >of useful light. Glare is high light energy over a measurable period of >time from above normal angles of vision (30 to 90-degrees above the >vertical). I think this means you don`t want a bright light shining in >your eyes. It`s glaring and impairs vision for awhile.

Hi Richard,

Your continued research into the topic that the originator could not identify reveals the problems of Glare being a subjective response and not a technical specification.

However, I have already provided technical clues to answer:
"What is the wavelength of Glare?"
that has so far evaded absolutely any response from our binary engineer.

So far the suggestions have been that it matters to a WHO, and there is a practical WHY to reveal the WHEREFORE. The differences in Photopic and Scotopic vision narrow down the wavelength, but there is a vast gulf between them. Even being a binary choice, there is still the chance of being wrong that puts the gag on his stepping forward with an answer. In the end I will be alone in completing this I suppose. It will cap off my full mathematical treatment and the exposure of this full cancellation that is TEN TIMES BRIGHTER THAN THE SUN ;-)

This topic of Glare, being his alone, has subsequently been identified by him as being inconsequential detail, or better yet, wholly from my distorted imagination (but only when I examine this point).

There is still much to mine here. With errors so abundant, it is difficult to choose any one aspect and not have to correct three aspects of its distortions.

73's
Richard Clark, KB7QHC

3120. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 22:45:25 UTC
From: kashe@sonic.net
Message-ID: <c490e11uc9194qqbo7s790anpbcsgioeb6@4ax.com>
Source record: 72986
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 10 Jul 2005 21:40:02 +0100, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sun, 10 Jul 2005 12:56:44 -0500, Cecil Moore <w5dxp@hotmail.com>
>wrote:
>
>>For a police state to exist, the first step is
>>to disarm the citizens.
>
>The citizens in this country have never been armed, and in fact even
>hand-guns for sport use were recently outlawed.
>
>73 de G3NYY

OK. For a police state to exist, the second step is saturation
video surveillance of the downtown area of your capital.

The third step is to destroy the public library system through
non-judicially-supervised, on-demand, secret surveillance.

3121. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 22:55:41 UTC
From: kashe@sonic.net
Message-ID: <or90e195l2d19a3bpdf5u7rnkrofec807p@4ax.com>
Source record: 72987
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 13 Jul 2005 22:37:51 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Fred W4JLE wrote:
>> Actually $1.76 as of today, but used to be worth $2.40.
>> Any country too politically correct to call a terrorist a terrorist is not
>> long for the world.
>>
>>
>> Tis a real shame the spawn of a great people that endured so much with the
>> "stiff upper lip" are a bunch of wimps!
>>
>> "Polymath" <invalid@invalid.invalid> wrote in message
>> news:42d569cf$3_3@x-privat.org...
>>
>>
>>>Pound, Money = sort of like a dollar, but twice as valuable and more
>>
>> robust.
>>
>>
>>
>
>Anyone who underestimates the toughness, tenacity, and resilience of the

... for which, read -- dogged intransigence in defense of
imperialism.

>British people is a fool. The Irish Republican Army waged a terrorist
>campaign against London for years

... until?

>without having any effect
>whatsoever on British resolve. While I'm no fan of the British,
>I'd like to see some of our whining, sweat-drenched, paranoid
>patriots make a stab at doing even half as well.
>73,
>Tom Donaly, KA6RUH

3122. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 23:01:28 UTC
From: kashe@sonic.net
Message-ID: <47a0e1th1274hno2cfq9p7vh1v3a2cm4hl@4ax.com>
Source record: 72988

On Thu, 14 Jul 2005 09:15:45 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 14 Jul 2005 10:31:59 -0500, richardharrison@webtv.net (Richard
>Harrison) wrote:
>
>>The white house is dense. The U.S. has been spending 8 billion a year
>>just to improve Iraqi infrastructure so foreigners might invest in a
>>place with no law and order. The infrastructure is in desparate need of
>>repair from war, sabotage, crime, and neglect.
>
>Hi Richard,
>
>As acknowledge by the white house, this Trillion dollar sink hole is
>putting money down the toilet by buying bullets to protect against
>suicide bombers (hasn't worked - ever - this has been going on since
>Nobel invented dynamite).
>
>Simple resolution with that same Trillion dollars that WOULD solve
>things would be to set up shop next door to the guys strapping sticks
>of TNT to the Iraqi's vests. Instead, offer to strap packs of $100
>for every stick of dynamite they might have lined up for.
>
>Let's say that they would come out looking like a Chia Pet with
>$50,000 glommed onto them.
>
>We could do this with every man, woman, and child in all of Iraq.

What makes you think we'll figure this out for Iraq when we
can't dope out that a couple thousand worth of meaningful pre-natal
care would save thousands in prisoner maintenance down the road at
home.

>
>It won't happen, of course, because there is no will to win the war -
>only to fight one. Except for those who have something better to do
>with their lives (indirect quote of the draft dodger who shunned
>military service to run this corporate franchise called the Pentagon).
>
>73's
>Richard Clark, KB7QHC

3123. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 23:08:59 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <d-mdnfGvkLKXtn3fRVn-pw@adelphia.com>
Source record: 72989

Richard Harrison wrote:
> Chuck wrote:
> "We all know of cases where electronics gets zapped but Jerry is
> concerned about his house."
>
> I`ve worked in many protected structures struck repeatedly by lightning
> to their air terminals, rods, and towersm resulting in not one scintilla
> of damage to occupants or equipment.
>
> Transportation vehicles are struck by lightning every day and seldom
> experience anything inside. An open convertible is not safe in a
> lightning strike however.

The occasional stain on the seat tho' 8^)

- Mike KB3EIA -

3124. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 23:13:01 UTC
From: kashe@sonic.net
Message-ID: <8ma0e19v1orodfiu0d9ou3dsqfd00806lo@4ax.com>
Source record: 72990

On Fri, 15 Jul 2005 00:01:20 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>
>Clearly there is absolutely no will to win. There is every will to
>balance this war on the back of men in uniform though and to rob the
>treasury to pay contractors 5 to 10 times as much to do the same work
>of a qualified grunt, who has to train these clowns and then take an
>RPG while watching their backs.

A lot of the "security contractor" thing is a charade anyway.
Before the stop-loss insanity, many of the qualified smart grunts and
their officers bailed out of the military and formed, or went to work
for, the "contractors" for the larger salaries. Then we have the gall
to express horror when these "civilians" are targeted. They've only
changed uniforms.

>
>The draft dodgers and goldbricks that inhabit the administration never
>learned the lessons of Vietnam - they had more important things to do
>with their life when other men in uniform were preserving freedom and
>Democracy and standing against the Communist menace.
>
>73's
>Richard Clark, KB7QHC

3125. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 23:42:01 UTC
From: kashe@sonic.net
Message-ID: <gjc0e1dvk5mo70qfq5k6sbe07eprpne2mf@4ax.com>
Source record: 72991
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 11 Jul 2005 15:44:23 -0500, "Charlie" <charlie@earthlink.net>
wrote:

>There are no distortions Ken. The tower looks the same the day before Dennis
>as it does now the day after. The WHOLE POINT in using 2 identical photos
>was to illustrate that there IS NO DIFFERENCE after the storm.
>
>I have been on Usenet for 20 years or more and it is always the
>same....people just wait in the wings to take pot shots at others. I posted
>a link to the tower photos and all I got was ridicule and cuss words.
>
>Now that it survived the affects of hurricane Dennis I get accusations that
>Dennis never even came near my home.
>You guys can all go fish..or any other "F" word you might be able to think
>of.
>
>Sorry to rob you all of the splendor of viewing my new tower down on the
>ground.
>
>You fuckers are all a bunch of real sick bastards.

What a bunch of passive-aggressive crap. If you really wanted
to make the point, you would have posted an honest "after" shot, not
your smartass little duplicate.

3126. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 23:46:00 UTC
From: kashe@sonic.net
Message-ID: <jsc0e1hvkio6e1nhjqrhjgorgjns5lhpgb@4ax.com>
Source record: 72992
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Sun, 17 Jul 2005 00:48:50 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>"Charlie" <chas@aol.com> wrote in news:11diuqh6edfqqf7@news.supernews.com:
>
>> TY Ed....President Bush has authorized emergency disaster funds for our
>> county due to "increased winds!"
>>
>
>
>
> Yeah, I heard. Winds gusting to 59 mph. Just a few months ago we had
>winds gusting to 70 here on the Pacific North West coast. Wonder why no
>one got disaster funds?
>
>

Because less than a third of your population is named Bubba.

>
> Ed

3127. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-21 23:53:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <gAWDe.290$wH.5378151@news.sisna.com>
Source record: 72993

Hal:

Actually, I have used the coherer on receiving antennas, in a couple of lightning storms it has indeed shorted to ground and needed to be shaken to restore the signals from the antenna (NOTHING near a direct hit and this is central cal, not much lightning and of little significance.)

Presently, I use MOV's... at best, -=maybe=-, better than nothing...

John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message news:IpECe.86545$Tt.25153@bignews3.bellsouth.net...
> Interesting, You made me look. (made me Look up coherer, that is).
> An invention of Sir Oliver Lodge for detecting rf.
> Your idea of using it as a lightning protection device seems to be a
> misapplication.
> But like I said, until now, I never heard of it.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:0ExCe.35$An2.2190373@news.sisna.com...
>> For a receiving antenna, a coherer provides excellent lightning
>> protection.
>>
>> Unfortuantly, on a transmitting antenna, the rf would immediately
>> make
>> the coherer conductive and a direct short to ground (perhaps very
>> low
>> QRP power could be used?)
>>
>> One can easily be construted with a bottle filled with metal
>> filings,
>> two bare wires are inserted into the filings (not touching and
>> seperated by a substantial amount of the filings), one wire goes to
>> a
>> good earth ground, the other to the antenna.
>>
>> If the coherer shorts to ground it only needs to be shaken to reset
>> (I
>> would suspect in a real lightning strike the metal would be fused,
>> quite possibly even vaporized.)
>>
>> John
>>

>> "Jerseyj" <jerseyj69@comcast.net> wrote in message
>> news:jerseyj69-8935F5.08071417072005@comcast.dca.giganews.com...
>> > Hi all,
>> > For years I lived in an apartment and just had antenna's in the
>> > attic ,
>> > but now having moved to a house in a few months I'll be putting
>> > up a
>> > 10-160 wire type antenna in my trees. Given the recent spate of
>> > serious
>> > thunderstorms, and the accompanying lightning, I'm a bit
>> > concerned
>> > about
>> > properly grouding the antenna so that I don't fry the house
>> > *smile*.
>> > I
>> > know about some articles on the ARRL site, but was wondering if
>> > anyone
>> > else had some ideas or pointers on how to practically do this ?
>> >
>> > Jerry
>>
>>
>
>

3128. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:02:56 UTC
From: kashe@sonic.net
Message-ID: <8id0e1dms1ie774dkhtfmvbd2td2ovseeh@4ax.com>
Source record: 72994

On Fri, 15 Jul 2005 16:27:17 +0100, "Polymath"
<invalid@invalid.invalid> wrote:

>Go and take a look.

That could be a dangerous suggestion, as seen at
<http://www.lhup.edu/~dsimanek/horse.htm> which contains a few
additional comments as to the source.

In part, it reads:

In the year of our Lord 1432, there arose a grievous quarrel among the
brethren over the number of teeth in the mouth of a horse. For
thirteen days the disputation raged without ceasing. All the ancient
books and chronicles were fetched out, and wonderful and ponderous
erudition such as was never before heard of in this region was made
manifest. At the beginning of the fourteenth day, a youthful friar of
goodly bearing asked his learned superiors for permission to add a
word, and straightway, to the wonderment of the disputants, whose deep
wisdom he sore vexed, he beseeched them to unbend in a manner coarse
and unheard-of and to look in the open mouth of a horse and find
answer to their questionings. At this, their dignity being grievously
hurt, they waxed exceeding wroth; and, joining in a mighty uproar,
they flew upon him and smote him, hip and thigh, and cast him out
forthwith. For, said they, surely Satan hath tempted this bold
neophyte to declare unholy and unheard-of ways of finding truth,
contrary to all the teachings of the fathers. After many days more of
grievous strife, the dove of peace sat on the assembly, and they as
one man declaring the problem to be an everlasting mystery because of
a grievous dearth of historical and theological evidence thereof, so
ordered the same writ down.

Francis Bacon, 1592.

>
>"Don Baker" <n2mcg@comcast.net> wrote in message
>news:i_idnX8EcYLi70vfRVn-1Q@comcast.com...
>>I would like to be able to determine if antenna is present at the end of a
>> piece of coax.
>

3129. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:07:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e039bb$1_2@spool9-west.superfeed.net>
Source record: 72995

Ian White G/GM3SEK wrote:
> As you begin to admit when challenged, the instrument itself does
> nothing but add or subtract RF voltages derived by sampling the line
> voltage and current.

You missed the point, Ian. THE VOLTAGE SAMPLE IS DIRECTLY
PROPORTIONAL TO THE E-FIELD AND THE CURRENT SAMPLE IS DIRECTLY
PROPORTIONAL TO THE H-FIELD. Given the assumptions about the
boundary conditions in which the Bird is placed, the Bird is
INDEED indicating the value of the Poynting Vector no matter
how indirectly. IF IT WASN'T, BIRD COULD NOT REMAIN IN BUSINESS.
That's what Bird Wattmeters do - indicate the magnitude and
direction of the Poynting Vector - assuming the instrument is
properly used.

Pz+ = E^for x H^for = Bird wattmeter reading for slug ==>

Pz- = E^ref x H^ref = Bird wattmeter reading for slug <==

This is all covered in "Fields and Waves ..." by Ramo and
Whinnery. I have NOT introduced anything new. I have simply
tied together some loose ends from all the references available.
Anyone with an open and logical mind could have done exactly
the same thing.

> No multiplication is involved.

On the contrary, non-linear calibration of linear meters is an
old technique for analog multiplication. I assumed you knew that
already, but maybe you are not that old. When I was in college,
we put a '1' mark at one milliamp. We put a '4' mark at 2 milliamps.
We put a '16' mark at 4 milliamps. It's a very, very, very old
technique for analog multiplication.

> The calibration to indicate power is performed ENTIRELY on the meter
> scale.

EXACTLY!!! YOU GOT IT!!! THAT'S ANALOG MULTIPLICATION!!! I did the
exact same thing for analog multiplication when I was in college.
Non-linear calibration of linear meters is a very, very, very old
analog computing technique. Do you even remember analog computers?
If not, I can loan you my analog computing college textbook.

>> It is an analog calculator.
>>
> No, it isn't.

Yes, it is. I learned all those analog techniques while in
college at Texas A&M in the 50's. Maybe you should review
a very old reference on the subject. When I was in college,
analog computers were more popular than digital computers.
Op-amps using tubes were more numerous than anything digital
(and the Texas A&M mascot was a T-Rex). You young sprouts are
just digitally-spoiled brats. :-)

> In your earlier statement you said it "performs multiplication", which
> is totally false. But for your final paragraph you've switched it to
> "analog calculations", which is more general and thus partly true; and
> then you invite me to disprove that.

It INDEED does perform analog multiplication, Ian, through the non-
linear calibration of the linear meter. I'm not trying to confuse
anyone. I just assumed you knew that already. Some of the OF's on
this newsgroup can verify what I am saying.

> Cecil, I don't think you even realise you're pulling these dishonest
> debating tricks... but after too many years to count, I just don't have
> any more time for them.

Your ignorance does NOT equate to dishonesty on my part, Ian.
Is admitting ignorance ever worth sacrificing integrity?

> <plonk>

Ian, instead of plonking me, as Roy did, why don't you just prove
me wrong? Wouldn't that be extremely easy given how wrong you assert
that I am?
--
73, Cecil http://www.qsl.net/w5dxp

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3130. Re: A sad day? Or, a reprieve for amateur radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:08:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e03a02$1_2@spool9-west.superfeed.net>
Source record: 72996

Bob Miller wrote:
> Hams do morse code every day, regardless of what the fcc sez... it's
> not as if it's being outlawed

But, but, but Bob. Don't you know if you lead a horse to
water, it forces him to drink? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3131. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:11:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e03aa7$1_2@spool9-west.superfeed.net>
Source record: 72997

Tom Donaly wrote:
> Another day, another plonk. Repent! Cecil, before everyone plonks
> you.

Hey Tom, have you noticed the only time I get ploinked is
when some guru is on the verge of losing an argument? Is
saving face worth sacrificing integrity?
--
73, Cecil http://www.qsl.net/w5dxp

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3132. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:14:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e03b79$1_2@spool9-west.superfeed.net>
Source record: 72998

Richard Harrison wrote:

> Ian White, G3SEK wrote:
> "In your previous statement you said it "performs multiplication" which
> is totally false."
>
> The only important thing is you supply representative inputs to a device
> and it gives you the correct product of the numbers as its outpot.

Apparently, Ian is too young to remember analog multiplication
by non-linearly calibrating the face of linear meters which is
exactly what Bird does.
--
73, Cecil http://www.qsl.net/w5dxp

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3133. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:19:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e03c94$1_1@spool9-west.superfeed.net>
Source record: 72999

Richard Clark wrote:
> straightman:
> And if that source WERE entirely coherent?

If that source were entirely coherent, superposition
between the forward waves and reflected waves would
result, obeying the laws of physics. Some areas could
be very bright obeying the total constructive interference
equation. Some areas could be totally black obeying the
total destructive interference equation. You really
should read _Optics_, by Hecht and get back to us.

The above is EXACTLY how antenna radiation patterns
are achieved.
--
73, Cecil http://www.qsl.net/w5dxp

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3134. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:23:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e03d89$1_2@spool9-west.superfeed.net>
Source record: 73000

Jim Kelley wrote:

> Cecil Moore wrote:
>> So what is E^ x H^?
>
> According to Born and Wolf, it's "an abstraction that introduces a
> certain degree of arbitrariness". On the other hand it's integral over
> a volume is described as something from which "no unambiguous conclusion
> can be drawn". So, is that what you're hangin' your hat on, there Cecil?

Actually, the Poynting Vector is extremely well defined *AND* well
accepted in the RF engineering community. Do you really reject the
Poynting Vector concept? If so, that explains everything.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3135. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:33:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e03fde$1_2@spool9-west.superfeed.net>
Source record: 73002

Jim Kelley wrote:

> Cecil Moore wrote:
>> What you have described is exactly what happens at a
>> Z0-match point.
>
>
> Except that power and energy, like mass and time, aren't things which
> 'cancel'. Fields on the other hand can superpose, interfere, and cancel.

You're still presenting that straw man riding that dead horse.
Please read my lips, Jim. *ENERGY CANNOT BE CANCELED*!!! Waves
can be canceled but the energy in the canceled waves must
change direction in a transmission line because there are
only two directions available. When fields cancel in one
direction, the energy in the fields must be re-distributed
in another direction. Given two, and only two, directions for
that re-distribution in a transmission line, what is it about
the following that you refuse to understand?

"... when two waves of equal amplitude and wavelength that are
180-degrees ... out of phase with each other meet, they are not
actually annihilated. All of the photon energy present in these
waves must somehow be recovered or redistributed in a new direction,
according to the law of energy conservation ... Instead, upon meeting,
the photons are redistributed to regions that permit constructive
interference, so the effect should be considered as a redistribution
of light waves and photon energy rather than the spontaneous
construction or destruction of light."
--
73, Cecil http://www.qsl.net/w5dxp

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3136. Horizontal J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:33:41 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1121992421.228276.90250@g49g2000cwa.googlegroups.com>
Source record: 73001

http://www.tfn.net/~gfloyd7/antenna

I'm interested in a wire gain antenna for 6m SSB, and the design above looks like a pretty quick project. Is it possible to use a j-pole like this above efficiently as a horizontal antenna? Couldn't it be center-fed with, say, 2 collinear half-wave sections seperated by 1/4 phasing stubs? In doing so, I was thinking of feeding the center with 300 ohm balanced line.

Thanks for any thoughts.

-Chuck
W1CEW
www.chuckwyatt.com

3137. Re: How would yoiu ...???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:35:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <tbXDe.301$g92.5543984@news.sisna.com>
Source record: 73004

Do you know Silvia Brown?

John

"Don Baker" <n2mcg@comcast.net> wrote in message
news:i_idnX8EcYLi70vfRVn-1Q@comcast.com...
>I would like to be able to determine if antenna is present at the end
>of a
> piece of coax. In some case antennas of type ?? would have a DC
> resistance
> across the coax and that makes it easy. But..., how would you
> easily
> determine if a coax shows an infinite DC resistance (NO RETURN PATH)
> no
> current flow - like simple did-poke.
>
> Trying to spare the group all the details of what I am doing but I
> will
> gladly answer any questions. Thank you in advance for your help.
>
> Don
>
>

3138. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:35:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e0406e$1_2@spool9-west.superfeed.net>
Source record: 73003

Richard Clark wrote:
> Also, this discussion bears upon the answer to
> "What is the wavelength of Glare?"
> that has remained undiscovered by binary engineers. I bet our Readers
> can catch this clue. :-)

Richard, you apparently are not reading my postings. The
wavelength of glare is exactly the same as the wavelength
of the single-frequency coherent laser forward wave
emissions. Do you want me to re-post the equation for
wavelength Vs frequency?
--
73, Cecil http://www.qsl.net/w5dxp

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3139. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:40:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e04186$1_1@spool9-west.superfeed.net>
Source record: 73005

John Smith wrote:
> ... no longer is that true, time for someone to rewrite all the usenet
> etiquette and tutorials...

As is: time for someone to rewrite all the drug laws and
profit from the extensive knowledge obtained during
prohibition. God gave us inalienabe rights to the "herbs
of the field" and our fascist government took them away. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3140. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:45:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e042ca$1_1@spool9-west.superfeed.net>
Source record: 73006

Richard Harrison wrote:
> It probably wouldn`t work, but you might say to the policeman: I didn`t
> see the red light. The white glare desensitized my eyes!

There was a guy in my home town, who for decades, honked his
horn when encountering a red light, because he was color blind.
Everyone knew he would just blow through a red-light, honking
his horn, so everyone gave him the right-of-way. Finally, he
encountered a deaf person ...
--
73, Cecil http://www.qsl.net/w5dxp

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3141. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:49:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e043ba$1_2@spool9-west.superfeed.net>
Source record: 73007

Richard Clark wrote:
> This topic of Glare, being his alone, has subsequently been identified
> by him as being inconsequential detail, ...

EXACTLY!!! When the glare is exactly the same frequency as the
forward laser beam, and when refraction has been eliminated,
as it is in a transmission line, your postings become completely
irrelevant, but I am not surprised since you seem to be protecting
some cow you consider to be sacred.
--
73, Cecil http://www.qsl.net/w5dxp

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3142. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:50:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ZpXDe.306$832.5513286@news.sisna.com>
Source record: 73008

Cecil:

You scare me...

Actually, I agree. It is not the governments business of peaking over fences and through windows to see if people are taking drugs. And, I don't support one citizen to be spying on another...

If people cause harm to others or another's property we do have a right to limit their actions.

Other than that, I would be willing to chuck plants (even the drug ones) into the basket of "inalienable rights", and if their creator seen fit to place them here for them (even if the wise creator is nothing more than a mud puddle <grin>), let them have at it...

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e04186$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>> ... no longer is that true, time for someone to rewrite all the
>> usenet etiquette and tutorials...
>
> As is: time for someone to rewrite all the drug laws and
> profit from the extensive knowledge obtained during
> prohibition. God gave us inalienabe rights to the "herbs
> of the field" and our fascist government took them away. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> News==----
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3143. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 00:51:12 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dbpgbo$2b5$1@news.service.uci.edu>
Source record: 73009

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> What you have described is exactly what happens at a
>>> Z0-match point.
>>
>>
>>
>> Except that power and energy, like mass and time, aren't things which
>> 'cancel'. Fields on the other hand can superpose, interfere, and cancel.
>
>
> You're still presenting that straw man riding that dead horse.
> Please read my lips, Jim. *ENERGY CANNOT BE CANCELED*!!!

Then my reminder of that fact (above) must have served its purpose. I wrote it in response to your claim that power cancels at a Z0-match point. Hellooooo... anybody home?

ac6xg

3144. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 01:00:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e0462c$1_2@spool9-west.superfeed.net>
Source record: 73010

John Smith wrote:

> Cecil: You scare me... Actually, I agree.

You scare yourself???? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3145. wideband, broadband. multiband antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 01:02:38 UTC
From: jobolesonihal@gmail.com
Message-ID: <1121994157.967730.83570@g44g2000cwa.googlegroups.com>
Source record: 73011
Cross-posted to: alt.cellular.tech,rec.radio.amateur.antenna

Hi folks
I'd like to know more about the antennas that are in many of the
multiband cellphones today.
A lot of the phones are multiband,(some are multimode), yet they have
only one antenna.
Would i be correct in assuming that most such phones have an
omnidirectional antenna which is tuned for centerfreq(computed by
considering all the bands for the phone)
If so did the RF frontend designers had to compensate for the fact that
the antenna may have a different vswr at different frequencies...
Or there are dual/tri/quadband antennas in such phones.

Also if you can reccomend some good books/website on this topic that
will be great.
Thanks In Advace
-EOS

3146. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 01:09:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e0483f$1_2@spool9-west.superfeed.net>
Source record: 73012

Jim Kelley wrote:

> Cecil Moore wrote:
>> You're still presenting that straw man riding that dead horse.
>> Please read my lips, Jim. *ENERGY CANNOT BE CANCELED*!!!
>
> Then my reminder of that fact (above) must have served its purpose. I
> wrote it in response to your claim that power cancels at a Z0-match
> point. Hellooooo... anybody home?

If I ever said, "Power cancels at a Z0-match", I made a mistake.
I don't think I ever said that and I believe that to be only one
of your numerous straw men, but if you will provide a valid reference,
I will take it back and appologize for my mental mistake. I am not
perfect, BUT the onus of proof is upon you. You can provide a reference
for your assertions, can't you, Jim? :-) (In case you missed it, this
is a challenge to your integrity.)
--
73, Cecil http://www.qsl.net/w5dxp

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3147. Re: wideband, broadband. multiband antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 01:11:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e048b1$1_2@spool9-west.superfeed.net>
Source record: 73013
Cross-posted to: alt.cellular.tech,rec.radio.amateur.antenna

jobolesonihal@gmail.com wrote:
> I'd like to know more about the antennas that are in many of the
> multiband cellphones today.

The cell-system has the ability to send a command to tht
cellphone to increase power output. Does that answer your
question?
--
73, Cecil http://www.qsl.net/w5dxp

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3148. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 01:13:08 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JKXDe.319$IG2.5957661@news.sisna.com>
Source record: 73014

Cecil:

Too bad you were a techie.

You would have made a good psychiatric counselor...

Next time I see her, my counselor, I am going to tell her about you,
and your psychic abilities... in fact, I might not wait, I might tell
her before I ask her to put on her pink thong!!! :|

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e0462c$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>
>> Cecil: You scare me... Actually, I agree.
>
> You scare yourself???? :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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3149. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 01:16:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e049ee$1_2@spool9-west.superfeed.net>
Source record: 73015

John Smith wrote:
> I might tell her before I ask her to put on her pink thong!!! :|

I prefer pure non-coherent white, myself.
--
73, Cecil http://www.qsl.net/w5dxp

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3150. Re: Horizontal J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 02:08:30 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <lxYDe.13020$do5.11738@bignews5.bellsouth.net>
Source record: 73016

A jpole is a end-fed halfwave - and because of that, lends itself well to
vertical applications.
It could just as well be oriented horizontally,
but
for a half-wave horizontal antenna,
a run-of-the-mill center fed dipole may be in order.
feed it directly with coax from the transmitter.
or not
(long runs may deserve twin lead or ladder line)

"Chuck W." <cwyatt@w3minds.com> wrote in message
news:1121992421.228276.90250@g49g2000cwa.googlegroups.com...
> http://www.tfn.net/~gfloyd7/antenna
>
> I'm interested in a wire gain antenna for 6m SSB, and the design above
> looks like a pretty quick project. Is it possible to use a j-pole like
> this above efficiently as a horizontal antenna? Couldn't it be
> center-fed with, say, 2 collinear half-wave sections seperated by 1/4
> phasing stubs? In doing so, I was thinking of feeding the center with
> 300 ohm balanced line.
>
> Thanks for any thoughts.
>
> -Chuck
> W1CEW
> www.chuckwyatt.com
>

3151. Re: Horizontal J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 02:27:18 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1121999238.686068.83090@g14g2000cwa.googlegroups.com>
Source record: 73017

Won't the vertical collinear still win over the dipole because of gain,
on the order of 3-6 dbd?

Now somewhere I've seen a center-fed horizontal antenna. something like
a double Zepp, but in addition to feeding the two halfwaves on each
side, there is additional halfwave sections added to each end via 1/4
wave phasing harnesses, or maybe I'm just imagining something from an
old antenna handbook.

-Chuck

3152. Re: Horizontal J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 03:06:43 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <11e0onol0ufdq99@corp.supernews.com>
Source record: 73018

Chuck W. wrote:

>
> Now somewhere I've seen a center-fed horizontal antenna. something like
> a double Zepp, but in addition to feeding the two halfwaves on each
> side, there is additional halfwave sections added to each end via 1/4
> wave phasing harnesses, or maybe I'm just imagining something from an
> old antenna handbook.
>
>
> -Chuck
>

You have described a horizontal colinear antenna. It has gain broadside
to the wire but don't expect good results off of the main lobes.
Of course if you have a preferred direction, or work two locations 180
degrees apart it works nicely.

3153. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 03:14:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rro0e1truse9oetv2r517kb7s1mvg9a3jl@4ax.com>
Source record: 73019

On Thu, 21 Jul 2005 19:49:53 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
> When the glare is exactly the same frequency
and yet you draw a blank when asked
"What is the wavelength of Glare?"

That's OK, I will bide my time and reveal this TOO, later.

The solution to this week's puzzler:
2(bad) you can('t) solve this.

3154. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 03:18:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p5p0e15ndljcm27fngvs1h128k47vn1skd@4ax.com>
Source record: 73020

On Thu, 21 Jul 2005 19:35:48 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>The wavelength of glare is
the inverse of its frequency - yeh, tell it to the judge, buddy. :-)

Gad, how much can you squirm? We enjoy this snake dance all the same.

3155. Re: Looking for brains my are small

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 03:20:04 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HBZDe.351$_O3.7005302@news.sisna.com>
Source record: 73021

Cecil:

I hate to ask 'em to put on a white thong, seems to start 'em off thinking about marriage...

Besides that, last time I seen a girl in a white thong at a pool the ants ruined everything!!!

I could see the damn little things had invaded her clothing, you could see their little black curly feelers sticking through the white thong! :(

<innocent look>

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e049ee$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> I might tell her before I ask her to put on her pink thong!!! :|
>
> I prefer pure non-coherent white, myself.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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3156. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 03:21:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ucp0e19sc1gu3lr8gg9eb2m0u6m0jhmnv8@4ax.com>
Source record: 73022

On Thu, 21 Jul 2005 19:19:23 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Some areas could be
You might already be a winner!

Is that you? Are you really Ed McMahon? Have you stopped drinking
since Johnny died?

... Oh, sorry, Skitch Henderson? When did you pick up the contract
for Publisher's Clearing house?

3157. HS 1500 Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 03:35:45 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <YMmdne7g35vz9H3fRVn-gg@vnet-inc.com>
Source record: 73023

Just picked up a High Sierra 1500 at a hamfest this last weekend. Great shape but no manual. Sent an email to High Sierra but was told that they only have the manual for the 1800 and 1800/Pro now. They had a hard drive crash and it was the only place they had the manual, so, now there are none available.

Anyone have a manual they would like to sell? How about making a copy for which I would gladly pay along with the cost to get it here.

If anyone can help let me know, please.

Thanks in advance.

Sam - K7SAM
K7SAM at ARRL dot NET

3158. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 06:53:39 UTC
From: Polymoth <invalid@invalid.com>
Message-ID: <hn51e1lp7doheek61l7hn9nn7dftbk59c1@4ax.com>
Source record: 73024
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Thu, 21 Jul 2005 at 22:55:41, kashe@sonic.net wrote:

>On Wed, 13 Jul 2005 22:37:51 GMT, "Tom Donaly"
><dtdonaly@sbcglobal.net> wrote:

>>Anyone who underestimates the toughness, tenacity, and resilience of the
>>British people is a fool. The Irish Republican Army waged a terrorist
>>campaign against London for years
>
> ... until?

You Americans got a taste of terrorism in your own back yard and lost
interest in funding Irish Republican terrorists.

It's a shame it took so long.

3159. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 14:11:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e0ffac$1_2@spool9-west.superfeed.net>
Source record: 72925

Richard Clark wrote:
> and yet you draw a blank when asked
> "What is the wavelength of Glare?"

Since, in my example, glare has been completely
eliminated, you are asking: "What is the wavelength
of nothing?" My guess is that it would be the same
as the wavelength of the sound of one hand clapping.

In my example, if we increase the thickness of the thin
film to 1/2WL, it will maximize the glare to 2% of the
incident laser power. In that case, the glare would be
the same wavelength as the single-frequency coherent
laser. In the mental example, the wavelength doesn't
matter so 632.8 nm might be a logical popular choice.
I have a collimated laser of that wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

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3160. loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 14:22:41 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1122042161.541559.284190@g43g2000cwa.googlegroups.com>
Source record: 72926

Hi All,

At 433 MHz UHF, I need to reduce the lenght of the dipole using loading coils or a better method.

I need to know if there is a antenna program or a method to determine values and location.

tnx de KJ4UO.

3161. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 15:20:47 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b6d44$42e10fa7$97d55ac3$5535@ALLTEL.NET>
Source record: 72928
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

We Americans are are at the root of all the worlds problems. It has been so stated by Saddam Hussen, Castro, and various other idiots, and now confirmed by you.

Find a spot on my big fat hairy McDonalds eating ass and kiss it. I weary of your anti American rhetoric and lack of appreciation for saving your sorry asses!

You fail to take responsibility for your own lives and like petulant children find it easier blame America.

"Polymoth" <invalid@invalid.com> wrote in message news:hn51e1lp7doheek61l7hn9nn7dftbk59c1@4ax.com...
> On Thu, 21 Jul 2005 at 22:55:41, kashe@sonic.net wrote:
> You Americans got a taste of terrorism in your own back yard and lost
> interest in funding Irish Republican terrorists.
>
> It's a shame it took so long.
>
>

3162. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 15:23:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ad684$42e10fa8$97d55ac3$5535@ALLTEL.NET>
Source record: 72927

And how much do you wish to shorten it? I know not many amateurs have room
for a full size 13.6" dipole.

<pdrunen@aol.com> wrote in message
news:1122042161.541559.284190@g43g2000cwa.googlegroups.com...
> Hi All,
>
> At 433 MHz UHF, I need to reduce the lenght of the dipole using loading
> coils or a better method.
>
> I need to know if there is a antenna program or a method to determine
> values and location.
>
> tnx de KJ4UO.
>

3163. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 15:27:55 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3g8Ee.35$4C5.364652@news.sisna.com>
Source record: 72930

with maximum shortening by loading coils, it is possible mattel can
fit such an antenna on a doll house!

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:ad684$42e10fa8$97d55ac3$5535@ALLTEL.NET...
> And how much do you wish to shorten it? I know not many amateurs
> have room
> for a full size 13.6" dipole.
>
> <pdrunen@aol.com> wrote in message
> news:1122042161.541559.284190@g43g2000cwa.googlegroups.com...
>> Hi All,
>>
>> At 433 MHz UHF, I need to reduce the lenght of the dipole using
>> loading
>> coils or a better method.
>>
>> I need to know if there is a antenna program or a method to
>> determine
>> values and location.
>>
>> tnx de KJ4UO.
>>
>
>

3164. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 15:48:14 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1122047294.685603.239310@g47g2000cwa.googlegroups.com>
Source record: 72929

I would like to make it half-size.

Can I just take the full-size dipole and roll the extra copper into a coil in the center?

de KJ4UO

3165. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 15:59:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <6K8Ee.44$dR.538775@news.sisna.com>
Source record: 72931

If you wind the helical coils with large spacing between turns--pretty close...

The capacitance across the windings of the coils will be the most notable effect, and will induce a need to shorten the electrical length of the element conductors, keeping that capacitance to a minimum may allow this need to be insignificant. If not, just trim wire length a bit.

Best might be to set up with a "wand" which can be lengthened or shortened a bit on each element which is so shortened by a coil.

John

<pdrunen@aol.com> wrote in message
news:1122047294.685603.239310@g47g2000cwa.googlegroups.com...
>I would like to make it half-size.
>
> Can I just take the full-size dipole and roll the extra copper into
> a
> coil in the center?
>
> de KJ4UO
>

3166. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 16:16:28 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6102f$42e11c02$97d55ac3$4342@ALLTEL.NET>
Source record: 72932

Will this be used for receive only or do you plan to transmit on it as well?

<pdrunen@aol.com> wrote in message
news:1122047294.685603.239310@g47g2000cwa.googlegroups.com...
> I would like to make it half-size.
>
> Can I just take the full-size dipole and roll the extra copper into a
> coil in the center?
>
> de KJ4UO
>

3167. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 16:19:20 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <VeWdncfXppwxgXzfRVn-gQ@comcast.com>
Source record: 72933

Loading coils do NOT shorten an antenna! They electrically lengthen an antenna that is already physically too short.

What do you really want to accomplish?

pdrunen@aol.com wrote:
> Hi All,
>
> At 433 MHz UHF, I need to reduce the lenght of the dipole using loading
> coils or a better method.
>
> I need to know if there is a antenna program or a method to determine
> values and location.
>
> tnx de KJ4UO.
>

3168. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 16:29:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <R99Ee.48$GC1.580683@news.sisna.com>
Source record: 72940

I think he is "OBVIOUSLY" speaking of a physical shortening.

In that light, not only will your comments be confusing, but also of
no, or even a negative use...

John

"Ham op" <hamop@comcast.net> wrote in message
news:VeWdncfXppwxgXzfRVn-gQ@comcast.com...
> Loading coils do NOT shorten an antenna! They electrically lengthen
> an antenna that is already physically too short.
>
> What do you really want to accomplish?
>
> pdrunen@aol.com wrote:
>> Hi All,
>>
>> At 433 MHz UHF, I need to reduce the lenght of the dipole using
>> loading
>> coils or a better method.
>>
>> I need to know if there is a antenna program or a method to
>> determine
>> values and location.
>>
>> tnx de KJ4UO.
>>
>

3169. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 16:41:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7i62e1pmql43flb3dl4kld1dl9k099dp5g@4ax.com>
Source record: 72934

On Fri, 22 Jul 2005 09:11:46 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>the wavelength doesn't matter so 632.8 nm might be a logical popular choice.

WRONG

This isn't even within the range of the two wavelength clues offered.

Dear Readers,

Let's examine why this answer is so wholly lacking:

1. The wavelength described, as already noted, is a wild foul out of
the ballpark;

2. a popular choice? This conjecture is broadly announced with the
characteristic couching of terms "might be" to hedge the answer. My
later discussion will reveal why no one would choose this at all;

3. logical choice? Absolutely no logic is offered - hence it is
exactly what it appears to be - a wild guess, My later discussion
will point out why this has no basis in logic whatever;

4. the wavelength doesn't matter? Given this is application driven,
the topic of Glare being just that, Glare is highly specific to
wavelength and is very intimately associated with perception. These
are two areas of discussion that exhibit considerable errors.

Naturally I will tie this all together in later discussion in a new
thread. And I will show:
"What is the wavelength of Glare?"
the answer of which has already been posted by me (see above) ;-)

73's
Richard Clark, KB7QHC

3170. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 16:45:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dbr7rurir1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72935

> I would like to make it half-size.
>
> Can I just take the full-size dipole and roll the extra copper into
a
> coil in the center?
>
> de KJ4UO
>

No you can't.

Program ADDALOAD calculates the value of a loading coil to resonate an
antenna wire of given length at any frequency. The location of the
coil as a fraction of length along the antenna wire can be chosen in
advance.

That's if it's possible of course. In some cases a loading capacitor
is needed.

You will need a coil in each half of the dipole.

Download in a few seconds program ADDALOAD from website below and run
immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

3171. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 17:21:45 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dbrb6vsas1@news.service.uci.edu>
Source record: 72938

Cecil Moore wrote:
> Richard Clark wrote:
>
>> and yet you draw a blank when asked "What is the wavelength of
>> Glare?"
>
>
> Since, in my example, glare has been completely
> eliminated, you are asking: "What is the wavelength
> of nothing?"

But in order to conserve energy, wouldn't the glare have to re-reflect off of an interference pattern and continue - I mean - start moving in the forward direction? ;-)

73, ac6xg

3172. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 17:21:49 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <47e39$42e12b57$97d55ac3$13729@ALLTEL.NET>
Source record: 72936

Glare occurs entirely internally to the eye, and there are two main types of glare effects. The first is the corona, which forms the fuzzy glow you see around a light at night, or the rays which seem to shoot out from the light of the sun. The second is the lenticular halo, which is only seen when the pupils are dilated enough and is a color banded halo which is usually visible surrounding the corona.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:7i62e1pmql43flb3dl4kld1dl9k099dp5g@4ax.com...
> On Fri, 22 Jul 2005 09:11:46 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
> >the wavelength doesn't matter so 632.8 nm might be a logical popular choice.
>
> WRONG
>
> This isn't even within the range of the two wavelength clues offered.
>
>
>
> Dear Readers,
>
> Let's examine why this answer is so wholly lacking:
>
> 1. The wavelength described, as already noted, is a wild foul out of
> the ballpark;
>
> 2. a popular choice? This conjecture is broadly announced with the
> characteristic couching of terms "might be" to hedge the answer. My
> later discussion will reveal why no one would choose this at all;
>
> 3. logical choice? Absolutely no logic is offered - hence it is
> exactly what it appears to be - a wild guess, My later discussion
> will point out why this has no basis in logic whatever;
>
> 4. the wavelength doesn't matter? Given this is application driven,
> the topic of Glare being just that, Glare is highly specific to
> wavelength and is very intimately associated with perception. These
> are two areas of discussion that exhibit considerable errors.
>
> Naturally I will tie this all together in later discussion in a new
> thread. And I will show:
> "What is the wavelength of Glare?"
> the answer of which has already been posted by me (see above) ;-)

>
> 73's
> Richard Clark, KB7QHC

3173. Re: EF Johnson Matchstick Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 17:33:39 UTC
From: David Thompson <thompson@mindspring.com>
Message-ID: <T5aEe.7425$oZ.4330@newsread2.news.atl.earthlink.net>
Source record: 72937

I had one about 20 years ago that was in sad shape that I got from Bob W5AO (EX W5CKY). He used it on 80 meters. I remember even then finding insulators and switching parts was very hard. Good luck
73 Dave K4JRB

"Radiio73" <bkgarcia@comcast.net> wrote in message news:GPudnWvgjt8EiULfRVn-og@comcast.com...
> Do you have any antenna parts (sections, insulators) for the old EF Johnson
> Matchstick vertical antenna? I'm trying to rebuild one with original parts.
>
> Thanks, Bert N8NN
>
>

3174. APRS and voice - mobile configuration

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 17:56:20 UTC
From: pgardella@gmail.com
Message-ID: <1122054980.698869.195170@o13g2000cwo.googlegroups.com>
Source record: 72939

There are times when Google search is great, and others where it fails me. This is one of those situations.

I'm trying to find out what people recommend for handling both APRS and voice radios in the same vehicle. I want to have two separate rigs, one dedicated to APRS, the other for normal voice comms. I'm concerned about receiver overload and frying one of the rigs when the other is transmitting at high power.

The rigs are modern (Yeasu FT-2800 for APRS and Yeasu FT-8900 for voice). Would the intermod rejection of these two rigs protect them? I'd rather not set up a cavity or other expensive filters.

How do others have this setup in place?

73,
patrick

3175. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 18:35:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <45e2e1lq6agv7v6j29ih812a4dtn95g877@4ax.com>
Source record: 72941

On Fri, 22 Jul 2005 13:21:49 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Glare occurs entirely internally to the eye, and there are two main types of
>glare effects. The first is the corona, which forms the fuzzy glow you see
>around a light at night, or the rays which seem to shoot out from the light
>of the sun. The second is the lenticular halo, which is only seen when the
>pupils are dilated enough and is a color banded halo which is usually
>visible surrounding the corona.
>

Hi Fred,

Yes, this is another reason why using physiological characteristics to
explain otherwise dry, technical issues is so fraught with error.
That error is because not everyone perceives the "problem" (being
"Glare" here) in the same way. Further, within the population of
readers here, cataracts and "Glare" are a very common issue that is
wholly unrelated to the treatment of thin film interference and
"Glare."

I have spent a number of years in designing optical system to reduce
what is called "Glare" in this technical sense. In other words, the
suffering component was an artificial eye, so to speak, a
Photomultiplier Tube (PMT) within a fluorescence detection system that
achieved accuracies in the hundredths of percent. The abysmal math
performed in relation to this topic is amateurish in the extreme,
especially considering that so little more work was needed to offer
vastly better results.

It has been quite obvious that this poor math was necessary to support
a faulty premise: complete cancellation. There is no such thing,
especially within the context of "Glare."

73's
Richard Clark, KB7QHC

3176. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 19:23:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122060367_139@spool6-east.superfeed.net>
Source record: 72942

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>the wavelength doesn't matter so 632.8 nm might be a logical popular choice.
>
> 2. a popular choice? This conjecture is broadly announced with the
> characteristic couching of terms "might be" to hedge the answer.

Actually, I got that wavelength from _Optics_, by Hecht.
Hecht says: "The He-Ne laser is still among the most popular
devices of it kind, ... (632.8 nm)." So your argument is with
Hecht, not with me. Good luck on that one.
--
73, Cecil http://www.qsl.net/w5dxp

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3177. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 19:37:14 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dbrjb9$2kb$1@news.service.uci.edu>
Source record: 72948

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> Since, in my example, glare has been completely
>>> eliminated, you are asking: "What is the wavelength
>>> of nothing?"
>>
>>
>> But in order to conserve energy, wouldn't the glare have to re-reflect
>> off of an interference pattern and continue - I mean - start moving in
>> the forward direction? ;-)
>
>
> Wave cancellation causes the re-reflection but you are essentially
> correct as described perfectly on the following web page.

I was just joking with you. That's not really what happens.

> Note that
> there are only two directions in an RF transmission line.

Lemme write that down. So just how fast does the RF energy move?

> This applies to single frequency coherent glare (reflections). You see,
> Jim, the field of optics has no virtual reflection coefficients for
> you to hide behind.

Don't blame me for all this virtual stuff. It's a perfect fit for your
theory though.

73, ac6xg

3178. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 19:37:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122061221_173@spool6-east.superfeed.net>
Source record: 72943

Jim Kelley wrote:

> Cecil Moore wrote:
>> Since, in my example, glare has been completely
>> eliminated, you are asking: "What is the wavelength
>> of nothing?"
>
> But in order to conserve energy, wouldn't the glare have to re-reflect
> off of an interference pattern and continue - I mean - start moving in
> the forward direction? ;-)

Wave cancellation causes the re-reflection but you are essentially
correct as described perfectly on the following web page. Note that
there are only two directions in an RF transmission line. If the energy
stops moving rearward, as it does at a Z0-match, then it must start
moving forward. Walter Maxwell explained all of this decades ago.

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html

"... when two waves of equal amplitude and wavelength that are 180-
degrees out of phase with each other meet, they are not actually
annihilated. All of the photon energy present in these waves must
somehow be recovered or redistributed in a new direction, according to
the law of energy conservation ... Instead, upon meeting, the photons
are redistributed to regions that permit constructive interference, so
the effect should be considered as a redistribution of light waves and
photon energy rather than the spontaneous construction or destruction
of light."

This applies to single frequency coherent glare (reflections). You see,
Jim, the field of optics has no virtual reflection coefficients for
you to hide behind. A change in the index of refraction *always* causes
a reflection in optics. The only possibility of eliminating that reflection
is through wave cancellation. A change in Z0 also always causes a reflection
in RF transmission lines. An S-parameter analysis acknowledges that
fact of physics. Too bad so many RF engineers rely on a virtual
reflection coefficient as a cause when it is merely an end effect.
--
73, Cecil http://www.qsl.net/w5dxp

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3179. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 19:38:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fci2e1td52ffg7vpr063ast5g2ufo00dkj@4ax.com>
Source record: 72944

On Fri, 22 Jul 2005 14:23:32 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Good luck on that one.
Luck is unnecessary when the quote is so obviously disassociated from
the context of Glare or its wavelength. Such a struggle you put on,
like an old wife wriggling into a girdle. Such exhibitionism would be
pornographic if it weren't so comic. :-)

3180. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 19:40:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122061357_177@spool6-east.superfeed.net>
Source record: 72945

Fred W4JLE wrote:

> Glare occurs entirely internally to the eye, and there are two main types of
> glare effects. The first is the corona, which forms the fuzzy glow you see
> around a light at night, or the rays which seem to shoot out from the light
> of the sun. The second is the lenticular halo, which is only seen when the
> pupils are dilated enough and is a color banded halo which is usually
> visible surrounding the corona.

Is that what I am missing? Richard Clark has cataracts?
--
73, Cecil http://www.qsl.net/w5dxp

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3181. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 19:50:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122061974_183@spool6-east.superfeed.net>
Source record: 72946

> It has been quite obvious that this poor math was necessary to support
> a faulty premise: complete cancellation. There is no such thing,

Of course, in reality there's no such thing as complete
cancellation. But we can get the cancellation so good
as to be virtually perfect.

There's no such thing as a lossless transmission line,
yet you seem to have no problem with that concept. I
would venture that an SWR of 1.01:1 is close enough to
complete cancellation to be declared as close as humans
need to come to perfection which means that you are
just blowing smoke.
--
73, Cecil http://www.qsl.net/w5dxp

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3182. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:00:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122062560_187@spool6-east.superfeed.net>
Source record: 72947

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Good luck on that one.

That was "good luck on disagreeing with Hecht" which is exactly
what you did and trimmed out the details in hopes nobody would
notice. I honestly don't know what is the most popular laser
wavelength. I had to rely on Hecht for that answer.

> Luck is unnecessary when the quote is so obviously disassociated from
> the context of Glare or its wavelength. Such a struggle you put on,
> like an old wife wriggling into a girdle. Such exhibitionism would be
> pornographic if it weren't so comic. :-)

I'm sure you are a glare expert and I'm just as sure that your
postings on glare are completely irrelevant, an obvious diversion
in your feeble attempt to change the subject away from what is
important. Why are you so afraid to deal with my example including
the boundary conditions? Why are you so accepting of an ideal
transmission line yet so unaccepting of an ideal thin-film?
--
73, Cecil http://www.qsl.net/w5dxp

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3183. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:23:26 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <45l2e1dbad6g5tnfv7995meueoafcoi1sk@4ax.com>
Source record: 72949
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 22 Jul 2005 11:20:47 -0400, "Fred W4JLE" <w4jle@w4jle.com>
Gave us:

>We Americans are are at the root of all the worlds problems. It has been so
>stated by Saddam Hussen, Castro, and various other idiots, and now
>confirmed by you.
>
>Find a spot on my big fat hairy McDonalds eating ass and kiss it. I weary of
>your anti American rhetoric and lack of appreciation for saving your sorry
>asses!
>
>You fail to take responsibility for your own lives and like petulant
>children find it easier blame America.
>
>

Here here... there there...
>
>
>
>"Polymoth" <invalid@invalid.com> wrote in message
>news:hn51e1lp7doheek61l7hn9nn7dftbk59c1@4ax.com...
>> On Thu, 21 Jul 2005 at 22:55:41, kashe@sonic.net wrote:
>> You Americans got a taste of terrorism in your own back yard and lost
>> interest in funding Irish Republican terrorists.
>>
>> It's a shame it took so long.
>>
>>
>
We "funded" the IRA?

3184. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:28:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b9l2e1limm2006ep76d1ihlb6nfv67r238@4ax.com>
Source record: 72950

On Fri, 22 Jul 2005 14:50:20 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>> It has been quite obvious that this poor math was necessary to support
>> a faulty premise: complete cancellation. There is no such thing,
>
>Of course, in reality there's no such thing as complete
>cancellation.

There's no such thing even in a perfect world. Adding qualifications
like "in reality" changes nothing. The poor math treatment you
offered is not justified by appeals to conceptual arguments. Being
conceptual still allows (as I have demonstrated in the actual math)
them to be far from immaculate conception. We've seen you assume the
name of Occam, Galileo, Newton, but not Madonna. ;-)

3185. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:38:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hol2e1ht3ooidj007ouif6d83cmedg4jnn@4ax.com>
Source record: 72951

On Fri, 22 Jul 2005 15:00:06 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Why are you so afraid to deal with my example including the boundary conditions?

You've forgotten so soon? This marks twice we've been through this
complaint - not including the actual posting that responds directly to
your statement. Your Netzheimer affliction can be aided by a visit to
the archive. However, you will have another forgetting opportunity
when I soon revisit those results posted some time ago. :-)

3186. Re: Horizontal J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:39:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dbrlhf$i9$1@engnntp2.cig.mot.com>
Source record: 72957

Chuck, Flame disclaimer - This is not a comprehensive tutorial on all types of antennas or matching or all causes of loss and gain. I have simplified things for the purpose of providing a simple to understand explanation of this antenna which can also be used as a basis for further knowledge. Adding all possible theoretical and practical consideration up front only serves to confuse. With this knowledge (model in your brain) you should be able to understand things well enough to understand this antenna and other, related types (of which, almost all are).

To the point
Short answer:
Yes, you can feed it at the end, or for that matter, in the center of a 1/2 wave section with balanced line and a tuner/matching device.

...or at the center stub...or, wherever, with suitable matching...

(and long answer):
The "J-Pole" as most now call it, or as I prefer to call it, simply the "J-Antenna", is been around for along time and nothing more than an end fed half wave. I have instruction for a 20M J in my 1945 handbook. It is the same antenna as the standard half wave "dipole", just fed on the end rather than the center. The end is a high impedance feed point and therefore requires something to get to/from the 50 ohm rig. The pseudo 1/4 wave "stub" where the feedline connects is that impedance matching device. I call it "pseudo" because I believe an exact analysis yields that it is not precisely 1/4 wave for a perfect match, but close also counts in antennas as well as horse shoes. End feeding probably skews the pattern a little, but a half wave is pretty much a half wave regardless of how you feed it. You can run it horizontally of vertically. The pattern moves accordingly, taking the doughnut shape from the "wheel" orientation to the "inner-tube-floating-down-the-river" orientation, respectively.
The link you give shows "two half waves in phase" also end fed. This is called "collinear" since they share ("co") the same line ("linear"). Like the name "coax" meaning the two conductors share ("co") the same axis ("axial").
The "...in phase" part of this is because of that 1/4 wave stub in the center of the two 1/2 wave sections. It gets the two 1/2 wave sections in phase by providing 180 degrees of phase shift at the ends where it connects to the 1/2 wave sections and the stub is not supposed to be part of the radiating system. This makes the "left" ends of each 1/2 wave the same polarity (same story with the right ends). You can keep stacking these up just by adding the stub and 1/2 wave section. By the way, this is a common antenna configuration (half waves in phase) that you see mounted vertically on the three sides of all the triangular cell towers.
Adding half waves, most certainly lowers the feed impedance, so

adjustments in the matching device/method are needed as you add them.
If you choose to feed the first one in the center, it starts as the
standard 1/2 wave dipole". If you choose the "J" matching method, it
becomes the "J-whateverYouLike" antenna. As you add 1/2 wave sections, the
pattern will become narrower along the broadside. Starting from the
"dipole" you can add them to both ends, preferably symmetrically. As the
radiation from each of these 1/2 wave sections gets out into space, they add
up in the broadside direction and cancel in others. This squirts more of
your power there and less in other directions, giving gain in that direction
(and loss in the others) -- You squish the inner tube flatter. Each time
you double the length of the whole thing (the physical length of the 1/2
wave radiating sections), you realize approximately 3 dB gain in the
broadside direction. This 3dB diminishes for each subsequent doubling, but
is an ok approximation.
Feeding antennas with open wire, or balanced line is preferred when using
an antenna on several bands, or (which is the same basic reason) where the
feed impedance is far from 50 ohms, or expected to be. This is to keep
losses low since it is expected that there will be a high VSWR on the feed
line and the matching will be done away from the antenna, most commonly, at
the transmitter.

73, Steve, K9DCI whew
haven't been reading in a while...

"Chuck W." <cwyatt@w3minds.com> wrote in message
news:1121992421.228276.90250@g49g2000cwa.googlegroups.com...
> http://www.tfn.net/~gfloyd7/antenna
>
> I'm interested in a wire gain antenna for 6m SSB, and the design above
> looks like a pretty quick project. Is it possible to use a j-pole like
> this above efficiently as a horizontal antenna? Couldn't it be
> center-fed with, say, 2 collinear half-wave sections seperated by 1/4
> phasing stubs? In doing so, I was thinking of feeding the center with
> 300 ohm balanced line.
>
> Thanks for any thoughts.
>
> -Chuck
> W1CEW
> www.chuckwyatt.com
>

3187. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:44:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uhm2e1d0fi0f9g87frh0ffsjkadrc8ge8e@4ax.com>
Source record: 72952
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 22 Jul 2005 20:23:26 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

> We "funded" the IRA?

To much inhalation of Los Angles smog can be the only answer that
would explain not knowing that.

73's
Richard Clark, KB7QHC

3188. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:48:25 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <tYcEe.5949$_%4.3185@newssvr14.news.prodigy.com>
Source record: 72953
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Bidness wrote:
> On Fri, 22 Jul 2005 11:20:47 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> Gave us:
>
>
>>We Americans are are at the root of all the worlds problems. It has been so
>>stated by Saddam Hussen, Castro, and various other idiots, and now
>>confirmed by you.
>>
>>Find a spot on my big fat hairy McDonalds eating ass and kiss it. I weary of
>>your anti American rhetoric and lack of appreciation for saving your sorry
>>asses!
>>
>>You fail to take responsibility for your own lives and like petulant
>>children find it easier blame America.
>>
>>
>
>
> Here here... there there...
>
>>
>>
>>"Polymoth" <invalid@invalid.com> wrote in message
>>news:hn51e1lp7doheek61l7hn9nn7dftbk59c1@4ax.com...
>>
>>>>On Thu, 21 Jul 2005 at 22:55:41, kashe@sonic.net wrote:
>>>>You Americans got a taste of terrorism in your own back yard and lost
>>>>interest in funding Irish Republican terrorists.
>>>
>>>It's a shame it took so long.
>>>
>>>
>>
> We "funded" the IRA?

The British have always been under the impression that
we Americans saved our pennies for the sole purpose of
sending them to the IRA to finance the IRA's terrorist practices.
This is news to those of us who lived through the whole
era without giving anyone anything, or even taking sides
on the issue. There may have been a few Irish expatriots on
the East Coast who contributed to the IRA during that time,

but, for most Americans, it was a struggle that just didn't
register.
73,
Tom Donaly, KA6RUH

3189. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 20:53:42 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <s1dEe.89$387.1442873@news.sisna.com>
Source record: 72961
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I have always used the CFA as a mobile antenna!

Get with the program people, you will be hard pressed to find a better antenna for this purpose!

As a shack antenna, it sucks!

However, what other antenna can you chuck a motor into, slap a steering wheel and horn on and drive?

You guys are all wet, as usual... <satisfied-smirk>

John

"Polymath" <invalid@invalid.invalid> wrote in message news:42cf5a7c$1_2@x-privat.org...
> Actually, just did a quick webbing and found enough to
> realise that the claims are founded upon feet of clay.....
>
> 1. You do not separately excite the E and H fields because
> if you excite an E field, you get a corresponding H field, and
> vice-versa,
> even if it is your intention to excite separately.
>
> 2. The differential forms of Maxwell describe the fields at _EVERY_
> infinitesimal point and there is no way that the attempt to excite
> two
> separate fields from two separate mechanical contrivances will
> result
> in registration at every single point. Indeed, it is doubtful that
> registration
> will be achieved at all at any infinitesimal point. In any case, as
> in (1) above,
> your E field will have its H, and your H field will have its E field
> already.
>
> 3. In the accepted equations describing the generated field,
> radiation comes only
> from accelerating charges. Thus the capacitive elements of the CFA
> will
> create the near field (decaying as 1/(r^2)) but not any radiated
> field
> (decaying as 1/r). I wonder if the measurements resulting in the
> claims
> for the CFA were made in the near field?

>
> I wonder if the whole thing is intended as an elaborate hoax, and
> that the
> authors, in their original paper in Wireless World, relied on the
> fact that
> most readers' eyes would glaze over when faced with the maths of
> vector
> fields? (Remember, that in this NG we've had someone who boasts of
> two degrees, one in maths and the other in electronics, stating that
> e^(-jwt)
> is a function that decreases with increasing time, thus indicating
> that the
> awarding of a degree together with the professing of mathematical
> equations is no guarantee of competence!)
>
> I suggest
> http://farside.ph.utexas.edu/teaching/em1/lectures/node53.html etc
> as a good revising/learning/debunking cookbook. (Don't start from
> node 53!)
>
> "Polymath" <invalid@invalid.invalid> wrote in message
> news:42cf4d37_3@x-privat.org...
>> I've just about got enough elec-and-mag theory to be
>> able to understand the claims made for the GM3HAT
>> CFA; any pointers to the patent claims?
>>
>>
>
>

3190. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 21:04:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <12d06$42e15f65$97d55936$22582@ALLTEL.NET>
Source record: 72954

Cecil, glare is truly in the eye of the beholder. Glare and reflections are
two different animals.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1122061221_173@spool6-east.superfeed.net...
>
> This applies to single frequency coherent glare (reflections). You see,

3191. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 21:04:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11e2nr7nej2cl77@corp.supernews.com>
Source record: 72955

pdrunen@aol.com wrote:
> I would like to make it half-size.
>
> Can I just take the full-size dipole and roll the extra copper into a
> coil in the center?
>
> de KJ4UO

Sorry, that doesn't work. A length of stretched out wire doesn't behave the same when it's wound into a coil. The reason is that the field from one turn of the coil couples strongly to the other turns, while the field from a straight wire couples only weakly to the adjacent regions of straight wire. That's why a coil has more inductance than a straight wire of the same wire length.

The problem with using a simple program to answer your question is that at that frequency any coil is likely to be a sizeable fraction of a wavelength long, and perhaps in diameter and therefore will radiate substantially. So a lumped inductance won't be a good representation of the coil. EZNEC's helix creation feature would let you realistically model any proposed inductor and get an accurate answer. Unfortunately, the free demo version won't have enough segments to do this. You can get more information about it at http://eznec.com. You could model some very simple helical inductors of a turn or two with the demo program to get an idea of how the program works.

Roy Lewallen, W7EL

3192. The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 21:22:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rlm2e19c6e0irqmj20bj10lfgtpbs2leuu@4ax.com>
Source record: 72956

Glare (1):

In the context of matching for both Optical and ordinary RF applications encountered in the Ham Shack; it is meant to be described as the unwanted reflection of energy (or power, or what-have-you).

Glare (2):

In the context of the physiological response to observing unwanted reflections; it is meant to be described by applications that give rise to this annoyance. This can sometimes be confused with the first meaning of Glare that is suitable close, but can come into conflict with that meaning.

Glare, and Glare reduction:

When the topic of Glare is expressed in regard to the second usage, it is always wavelength specific, and application specific. In fact this is true of both meanings, but the commercial marketplace overwhelms by example in the second. With that in mind, we have to consider WHO is being served by Glare reduction. This is often the naive public who would otherwise be encumbered by Glare where their attention is drawn to it as it masks what is trying to be presented to them.

So, Glare masks the perception by reflections of light from, most usually, a pane of glass, plexiglass, or acrylic (and so on down the line) that covers or windows an exhibit. Usually we are speaking of covered art work, or display cases exhibiting samples or products (this being the most common form of Glare reduction application).

The quickest and most absolute method of Glare reduction in a showcase window on the street looking into a storefront is to simply tilt the window at the top, toward the viewer. This renders all light source reflections (typically higher than the head of the viewer) down. Ten or twenty degrees of tilt is often enough to give the illusion of there being no glass at all. Note my usage of "illusion" as Glare is all about perception in this second usage. This form of Glare reduction is wide-band and exhibits very little sensitivity to wavelength. The same Glare reduction of tilting glass covered artwork is also suitable for the same reason. However, I would point out that in such cases, the display staff make every effort that the lights be spotted on the artwork, otherwise if your face is illuminated, the artwork suddenly becomes a mirror.

Where both meanings of Glare converge for the same purposes, we find a more specific remedy. Specific because it employs tuned interfaces to reduce (not eliminate) reflections.

Here is where the convergence demands two different wavelength specifications, and importantly WHY. As I have offered elsewhere, there are two types of vision, Photopic and Scotopic (with a third, Mesopic, between the two which is the process of accommodation of migrating from one to the other - "acquiring" night vision is a commonplace description).

Anti-Glare materials that employ thin-film technologies seek to accommodate the major sources of Glare that fall into these two wide band regions of 550nM and 510nM. They are also application specific in that there are two forms of common illumination involved that compounds this to a four way solution. Those sources of illumination are Metal Halide and High Pressure Sodium lamps. There are others, certainly, but these specie exhibit characteristics that are extrapolated to similar sources.

Metal Halide lamps exhibit a comb of resonances, as does the High Pressure Sodium, that makes Glare elimination impossible. However, it does not make it impractical as among those major lines of emission, the optical engineer can select the biggest contributor such as 510nM for the night vision component of the eye's response. However, this doesn't make much sense because it also reduces the eye's ability to perceive what is being illuminated by that wavelength too. Not much night vision advantage in that, is there? However, when considering this is placed over artwork commonly, artwork exhibits a Lambertian distribution of reflected light, not a specular form of reflection. Hence the specular form exhibited by a pane of glass is reduced and the Lambertian reflection emerges with a greater contrast (another benefit of choosing anti-Glare products).

High Pressure Sodium, on the other hand, has a very strong line at the 610nM wavelength. This, too, would be a natural thin-film wavelength selection. In regards to night vision, such a reflection (that is, without Glare reduction) would be nearly invisible anyway. As such, its use would be oriented towards those WHO have a light adapted eye, that are in a darkened viewing situation.

However, as described, these are very poor solutions to the problem they attempt to answer. This is because these sources exhibit a comb of such wavelengths in their emissions. It follows that one interference layer may impact one line, but certainly not all (there being easily a dozen lines of emission for either source in either light adapted vision). Hence we have the multi-layer methods that my quote offered from the marketplace.

It should come as no surprise that anti-Glare products are wholly useless under common tungsten lighting whose bandwidth is broad and continuous. There is one exception, and it is commonly found for computer screen reflection reduction. I must note that such reduction has absolutely nothing in common with wavelength interference.

This class of reflection reduction employs a wide band light reduction. Principally it seeks to reduce all ambient light from

striking the display's surface and then reducing the reflections even further. This is a double whammy, where the display suffers it only once. However, you can control the brightness of the display to replace that loss, and in this sense you have increased your signal+noise/noise ratio.

Finally there is one source of reflection elimination that is common to both the optical engineer and the rf engineer (and apparently wholly unknown by binary engineers). I offered above one display window trick of tilting the top of the window towards the viewer. When this is done at a particular angle (and the ground below is not illuminated by the reflection - another feature of display window design), then there will be no perception of the window at all. Many people have knocked there heads against such windows trying to get a closer look at what was being displayed. Lawyers trumped designers by begging this was a possible source of litigation for those so injured. Some of these windows may yet survive in the older parts of your town where they cater to high-end shoppers. You may note that there are rails placed in the way to keep the curious from getting to close and bruising their noggins.

Now, I offered that there is a particular angle. For both the optical engineer and the rf engineer, it is called the "Brewster Angle." This is also known as the angle of maximum absorption and minimum reflection. When light or RF (it doesn't matter which) of vertical polarization strikes an interface at this angle, all of that energy passes through the interface with minimum reflection. When you perform a vertical antenna far field measurement, you may note that the lobe "sucks in" at the very low radiation angles. This angle that exhibits poor propagation results is a consequence of the air/earth boundary that is identical in all respects to an optical interface between two materials of differing indices. The optical engineer calls it the index of refraction/reflection (and can be examined through Snell's Laws); the rf engineer finds the same property in the ratio between the characteristic Z of air and the characteristic Z of the earth.

An instance to illustrate the rf scenario. With Air the Z is roughly 400 Ohms, for the Ocean it is roughly 10 Ohms. That ratio, in this case 40, results in a Brewster Angle of about 1ï¿½ï¿½. If we were to consider something more remote, and dryer like the ground in my neighborhood where the characteristic Z is closer to 100 Ohms (luckily I can see a vast body of seawater from my window); that ratio is 4 which results in a Brewster Angle of about 15ï¿½. Try as I might in directions other than towards Puget Sound, I will never launch any significant signals at angles lower than this 15ï¿½.

As a closing comment about the Brewster Angle, nearly every Laser uses this in their output window.

Next in this series: T HE FAILURE OF POOR CONCEPTS IN DISCUSSING THIN LAYER REFLECTIONS otherwise called by me as the WHEREFORE.

73's
Richard Clark, KB7QHC

3193. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 21:41:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <vKdEe.95$mK.1575031@news.sisna.com>
Source record: 72958

Richard:

Quite on topic, I commend you!

Yanno, back when I was a young feller, we lived in the sierra nevada foothills. I remember traveling to my favorite swimming hole on bicycle. It was over a five miles distant ride, but for the exuberance of youth, that was no distance what-so-ever.

And, gawd, how hot and ready for a swim we would be when we finally reached it on our bicycles.

Many times we would take fishing poles with us. Bluegill, trout and bass could all be caught in the creek there. I never cared for fish that much myself, but there was always a member of the family which was more than anxious to take the fish from our hands and make themselves a meal of it.

Other times we would take along 22 rim fire rifles and plunk around, shooting targets, bottles and cans. My favorite was a Remington rifle, single shot bolt action. I had a semi-auto but would go though ammunition faster than I could make money to replace it. Many of the other kids parents where not comfortable having their children around guns, so to their parents, we always kept such secret. Never an accident, and always behaved in a sane manner with weapons. I that my father to this day for the excellent instruction he imparted to me in handling weapons, and the great respect he inspired me to hold for them. When I was older, I purchased a 9mm german lugar, I still have it to this day, along with a 45 cal auto, both are favorite guns of mine. But, the stories of those guns are for another day...

Even did a little gold panning there. The area was a source of vast amounts of gold during the gold rush. To this day, gold can still be found in most any stream in that area. And, back then, there were still a few prospectors around which actually were able to eek out a living by sluicing the streams there and selling the gold to jewelers. Later in life I even bought a keen 8 inch dredge and went back. I ended up finding quite a bit of gold in those creeks and rivers with that dredge, a buddy and a couple of wet suits. Just loved to drink beer and float about dredging all day long. This is another fond memory of mine, but again, a story for another day...

Ahh, those days were some of the most favorite of my youth...

However, I digress here a bit.

So, this brings me to the important point of this post, and the point I had first set out to develop.

I once (well, maybe more than once) seen a glare on the water of that swimming hole...

John

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:rlm2e19c6e0irqmj20bj10lfgtpbs2leuu@4ax.com...
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> roughly
> 400 Ohms, for the Ocean it is roughly 10 Ohms. That ratio, in this
> case 40, results in a Brewster Angle of about 1��. If we were to
> consider something more remote, and dryer like the ground in my
> neighborhood where the characteristic Z is closer to 100 Ohms
> (luckily
> I can see a vast body of seawater from my window); that ratio is 4
> which results in a Brewster Angle of about 15�. Try as I might in
> directions other than towards Puget Sound, I will never launch any
> significant signals at angles lower than this 15�.
>
> As a closing comment about the Brewster Angle, nearly every Laser
> uses

> this in their output window.
>
> Next in this series: T HE FAILURE OF POOR CONCEPTS IN DISCUSSING
> THIN
> LAYER REFLECTIONS otherwise called by me as the WHEREFORE.
>
> 73's
> Richard Clark, KB7QHC

3194. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 22:00:50 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e16cf5_2@newsfeed.slurp.net>
Source record: 72959

"Richard Clark" wrote (among much else):
>Try as I might in directions other than towards Puget Sound,
>I will never launch any significant signals at angles lower
> than this 15i¿½.

Maybe you won't, but that doesn't mean it is impossible. A well-designed, well-implemented vertical can do that. If it couldn't, MW broadcast stations wouldn't have much of a groundwave.

RF

3195. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 22:16:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <PeeEe.103$zf1.1730700@news.sisna.com>
Source record: 72960

R.F.:

Reminds me of the guy who I once met who thought he was Napoleon; to
tell you the truth, he damn near had me convinced.

Turned out he wasn't, actually, I was quite disappointed! <grin>

Still, he could, somewhere along the line, have a direct relationship
to the Napoleon bloodline!

Yep, quite a shame, I think he knew Shakespeare too--and not just his
works, the actual man!!! <innocent-look>

John

"Richard Fry" <rfry@adams.net> wrote in message
news:42e16cf5_2@newsfeed.slurp.net...
> "Richard Clark" wrote (among much else):
>>Try as I might in directions other than towards Puget Sound,
>>I will never launch any significant signals at angles lower
>> than this 15�.
> _____
>
> Maybe you won't, but that doesn't mean it is impossible. A
> well-designed, well-implemented vertical can do that. If it
> couldn't, MW broadcast stations wouldn't have much of a groundwave.
>
> RF

3196. Re: lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-22 22:52:03 UTC
From: Warren Bowery <kc8ykq@arrl.net>
Message-ID: <Xns969BBFDDE3E1Bwbowerybrightnet@216.196.97.142>
Source record: 72962

Jerry - I'll second that idea. I use banana plugs on the balanced feedline from my inverted V wire antenna. If the weather looks like it might get bad, I just unplug it from my transmatch and throw it out the window (the feedline - not the transmatch!)

Warren KC8YKQ

Bob Miller <NOSPAM@neosoft.com> wrote in news:pqald1pam4gtvhr8vhpdja4jm75tb1khj1@4ax.com:

> I have a 10-80 wire connected between 3 trees. It's fed with
> ladderline. Lightning protection is simple -- with banana plugs and
> jacks, I can unplug the ladderline just outside the window whenever it
> looks rainy.
>

3197. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 00:23:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11e33gqbaptjr37@corp.supernews.com>
Source record: 72963

Richard Fry wrote:
> "Richard Clark" wrote (among much else):
>
>> Try as I might in directions other than towards Puget Sound,
>> I will never launch any significant signals at angles lower
>> than this 15ï¿½.
>
> _________________
>
> Maybe you won't, but that doesn't mean it is impossible. A
> well-designed, well-implemented vertical can do that. If it couldn't,
> MW broadcast stations wouldn't have much of a groundwave.
>
> RF

I'm sure Richard (Clark) is talking about sky wave. You're talking about surface wave. Indeed, a field is "launched" at all angles. But the portion at low angles (the surface wave) attenuates with distance, and the attenuation increases with frequency. At HF and above it's good for only a few miles, and all that's left beyond that is the sky wave, at higher angles. It is possible to get very low angle sky wave, but it requires vertically polarized waves and a very good conductor like salt water for several wavelengths from the antenna in the direction of propagation; favorably sloping terrain; or an extremely high horizontally polarized antenna.

As I'm sure you know, AM broadcast antennas intentionally radiate very little sky wave, and that's what amateurs need for communication beyond a few miles. Some care must be used in comparing MW broadcasting requirements and characteristics with amateur HF communications.

Roy Lewallen, W7EL

3198. Re: Horizontal J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 00:28:44 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Q9gEe.23231$dz.496@bignews4.bellsouth.net>
Source record: 72965

OOH!
If you want a 'gain' antenna - the easiest to do is a 5/8-wave for a
vertical, and you just add enough of a coil at the bottom to get your match
to 50 ohms. its hard to beat as far as verticals go..
and for a good gain horizontal antenna:
a double zepp - a dipole with both sides 5/8-wave - a total of 10/8 wave
(one and a quarter wave)
- but its fun to experiment with co-phased antennas -
I say - get a MFJ 259 and have fun playing.
I like quads and quagis.
but for vhf and uhf: the best improvement is height. - get that antenna up
high.

"Chuck W." <cwyatt@w3minds.com> wrote in message
news:1121999238.686068.83090@g14g2000cwa.googlegroups.com...
> Won't the vertical collinear still win over the dipole because of gain,
> on the order of 3-6 dbd?
>
> Now somewhere I've seen a center-fed horizontal antenna. something like
> a double Zepp, but in addition to feeding the two halfwaves on each
> side, there is additional halfwave sections added to each end via 1/4
> wave phasing harnesses, or maybe I'm just imagining something from an
> old antenna handbook.
>
>
> -Chuck
>

3199. Re: Affordable HF antennas/OT

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 00:29:05 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <6agEe.18785$xn.14092@bignews6.bellsouth.net>
Source record: 72964

"drwxr-xr-x" <nobody@frontier.net> wrote in message
news:slrnddvpr2.3kv.bit-bucket@shell.config.com...
> On Wed, 20 Jul 2005 13:27:39 GMT, Bob Miller wrote:
>>
>> Well, the civilian Humvee started out in the $79M range, and I believe
>> costs more now. Hard to believe the gov't would get them at 1/3 the
>> civilian cost. Think I read up-armored Humvees in Iraq are in the
>> $130M range.
>
> Innumeracy alert!

I always wondered why a simple Jeep wouldn't do. They are more maneuverable, cheaper to produce, and much more fuel efficient--not the the gov't cares. I can see where a heavier vehicle such as the Hummvee has a place, but then there's lots of jobs a smaller Jeep could do, too. (yeah, I am partial to the Jeep, but it is just MHO).

Jerry

3200. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 00:40:04 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e19245_4@newsfeed.slurp.net>
Source record: 72966

"Roy Lewallen" wrote:
> As I'm sure you know, AM broadcast antennas intentionally radiate
> very little sky wave, and that's what amateurs need for communication
> beyond a few miles. Some care must be used in comparing MW
> broadcasting requirements and characteristics with amateur
> HF communications.

AM broadcast station verticals have very significant energy at elevation angles that can be propagated by skywaves. As I'm sure you know, Class A AM broadcast stations have an extended geographic service area served exclusively by their nighttime skywave--many times more area than is served by their surface wave, in fact.

Richard Clark's statement did not limit his conclusion to amateur HF communications.

RF

3201. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 02:02:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11e39afjnfk2sc2@corp.supernews.com>
Source record: 72967

Richard Fry wrote:
> "Roy Lewallen" wrote:
>
>> As I'm sure you know, AM broadcast antennas intentionally radiate
>> very little sky wave, and that's what amateurs need for communication
>> beyond a few miles. Some care must be used in comparing MW
>> broadcasting requirements and characteristics with amateur
>> HF communications.
>
> _____________________
>
> AM broadcast station verticals have very significant energy at elevation
> angles that can be propagated by skywaves. As I'm sure you know, Class
> A AM broadcast stations have an extended geographic service area served
> exclusively by their nighttime skywave--many times more area than is
> served by their surface wave, in fact.
>
> Richard Clark's statement did not limit his conclusion to amateur HF
> communications.
>
> RF

I'm sorry, I stand corrected. Extended coverage AM stations do indeed produce significant sky wave as you've pointed out. I was thinking only of suppression of high angle sky wave radiation to avoid fading.

And you're also correct about Richard Clark's statement. Perhaps he is indeed attempting to do some MF broadcasting to his local area -- I just assumed he wasn't.

Roy Lewallen, W7EL

3202. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 03:06:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122088161_323@spool6-east.superfeed.net>
Source record: 72968

Jim Kelley wrote:
>> Note that
>> there are only two directions in an RF transmission line.
>
> Lemme write that down. So just how fast does the RF energy move?

All EM waves move at the speed of light (taking the velocity
factor of the medium into account).
--
73, Cecil http://www.qsl.net/w5dxp

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3203. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 03:19:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122088931_331@spool6-east.superfeed.net>
Source record: 72969

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Of course, in reality there's no such thing as complete
>>cancellation.
>
> There's no such thing even in a perfect world.

Since there's no such thing as a perfect world, that's a
moot point. But complete cancellation can certainly happen
in a human mind. All it takes is equal magnitudes and
opposite phases of conceptual EM waves. That's what makes
us different as a species.

You have taken a simple conceptual example to extremes.
Even more extreme is that there's no such thing as an
exact height, width, or depth, or an exact time, or a
point, line, or plane. There is no exact voltage, current,
or power except maybe at the quantum level. There is no exact
characteristic impedance. The list is endless. Why you choose
to engage in such silly diversions away from simple truths is
interesting. Taken to your extremes, nothing, including
communication among humans, is possible.
--
73, Cecil http://www.qsl.net/w5dxp

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3204. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 03:49:42 UTC
From: keith <krw@att.bizzzz>
Message-ID: <pan.2005.07.23.03.49.40.725830@att.bizzzz>
Source record: 72971
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Thu, 21 Jul 2005 22:45:25 +0000, kashe wrote:

> On Sun, 10 Jul 2005 21:40:02 +0100, Walt Davidson
> <g3nyy@despammed.com> wrote:
>
>>On Sun, 10 Jul 2005 12:56:44 -0500, Cecil Moore <w5dxp@hotmail.com>
>>wrote:
>>
>>>For a police state to exist, the first step is
>>>to disarm the citizens.
>>
>>The citizens in this country have never been armed, and in fact even
>>hand-guns for sport use were recently outlawed.
>>
>>73 de G3NYY
>
> OK. For a police state to exist, the second step is saturation
> video surveillance of the downtown area of your capital.

Good idea. It certainly helped the Brits nail down the perps.

> The third step is to destroy the public library system through
> non-judicially-supervised, on-demand, secret surveillance.

I hope you don't get your engineering information from CBS news too.

--
Keith

3205. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 03:53:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122090952_353@spool6-east.superfeed.net>
Source record: 72970

Fred W4JLE wrote:
> Cecil, glare is truly in the eye of the beholder. Glare and reflections are
> two different animals.

Indeed, "non-glare glass" was a misnomer and I appologize
for that mistake in word selection. Reflections, not
glare, was the actual topic of discussion. "Glare" or
"non-glare" does not even appear in the index of _Optics_,
by Hecht.

I should have called the thin-film function "non-reflective"
instead of "non-glare". Glare is actually totally irrelevant
to anything I have posted including the original example.
--
73, Cecil http://www.qsl.net/w5dxp

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3206. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 04:21:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122092660_379@spool6-east.superfeed.net>
Source record: 72972

Richard Clark wrote:

> Glare (1):
>
> In the context of matching for both Optical and ordinary RF
> applications encountered in the Ham Shack; it is meant to be described
> as the unwanted reflection of energy (or power, or what-have-you).

The IEEE Dictionary does not have that as a definition for "glare".
I made a mistake in calling my example a "non-glare glass" example
and I appologize for that poor choice of words. It was a semantic
mistake, not a conceptual mistake.
--
73, Cecil http://www.qsl.net/w5dxp

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3207. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 05:58:24 UTC
From: richardharrison@webtv.net
Message-ID: <14291-42E1DC80-575@storefull-3257.bay.webtv.net>
Source record: 72973

Richard Clark wrote:
"As a closing comment about the Brewster Angle, nearly every laser uses this in their output window."

A plane wave strikes the earth and its reflection leaves at an angle which equals the angle of incidence.

The strength of reflected wave to incident wave is a vector ratio called the reflection coefficient.

Strength of the fields just above the earth is the vector sum of the incident and reflected waves, taking into account both time phase and space orientation.

The reflection coefficient`s value depends on the characteristics of the reflecting surface. If the earth were a perfect reflector, the reflected wave would be as strong as the incident wave and the value of the reflectopn coefficient would be 1.

With a perfect reflector, the horizontal components of the electric incident and reflected fields exactly cancel (Terman`s words) at the reflecting surface. On the contrary, the vertical components of the electric fields of the incident and reflected waves do not cancel, but add together at small reflection angles.

For imperfect earth, magnitude of the reflection coefficient is less than 1, and the angle of the reflected wave will be slightly shifted.

The incidence angle has a complicated effect on vertically polarized waves. At grazing incidence, the reflection coefficient is 1 on an angle of 180-degrees. The reflected wave is as strong as the incident wave, but its phase is reversed by the reflection. However, with vertical incidence, the phase shift is very small and the reflection coefficient is less than 1 with real earth.

Between the extremes of grazing incidence and vertical incidence, magnitude of the reflection coefficient goes through a minimum at a small angle of incidence and reflection. It depends on the characteristics of the reflector (soil). This puts a small reduction of radiation at a low vertical angle called the Brewster angle.

At the Brewster angle, the magnitude of the reflection coefficient for vertically polarized waves will be much less than 1 and so tends to reduce radiation at some low vertical angle, but not at zero degrees..

My 19th edition of the ARRL Antenna Book calls this minimum in the vertical radiation pattern, the "Pseudo-Brewster Angle" (PBA) because

its effect was noticed in the reflection (glare) of sunlight from water surfaces when the sun was low. It was named for Sir David Brewster, a Scottish Physicist (1781-1868). PBA is described on page 3-6.

Best regards, Richard Harrison, KB5WZI

3208. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 06:09:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3tl3e1pqi2dml7oqn2dt2pni1s17lo9r5f@4ax.com>
Source record: 72974

On Fri, 22 Jul 2005 22:19:36 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Since there's no such thing as a perfect world

This is a conceit one would only expect in a teenage girl's diary.
Or perhaps at the juke joint crying into a beer. The remainder of the
exposition is a sorry example for justifying the cracked paving stones
to an absurd destination.

>Why you choose to engage in such silly diversions away from simple truths is
>interesting.

Simultaneously silly and interesting? Your topic and you are the
first one to take shelter in this veneer of pouts and sulking. I've
laid out the math, complete, you've both acknowledge it, and then
claim it was unknown to you.

It bears re-visiting to wrap this up, but I have no doubt it will make
any impression on your future claims. That is of little concern to me
however as every forum needs a joker in the deck. It keeps stasis
from dominating this as a morgue - and silly is as silly does.
"But at my back I always hear
Times winged chariot hurrying near;
And yonder all before us lie
Deserts of vast eternity."

>You have taken a simple conceptual example to extremes.

Simple concepts have the capacity for resilience and extremes and can
tolerate all such examinations to emerge unscathed. A binary outcome
has no resilience and is remarkably brittle, suffering subtleties with
stress fractures such as you exhibit. Your work, outraged at
examination, simply doesn't measure up to any of these "ideals" you
hide behind.

Tomorrow we continue the brutal examination.

3209. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 09:12:15 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <3f24e1t0u9lleq1d65flaq67si5ch6bgau@4ax.com>
Source record: 72875
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 22 Jul 2005 13:44:23 -0700, Richard Clark <kb7qhc@comcast.net>
Gave us:

>On Fri, 22 Jul 2005 20:23:26 GMT, NunYa Bidness
><nunyabidness@nunyabidness.org> wrote:
>
>> We "funded" the IRA?
>
>To much inhalation of Los Angles smog can be the only answer that
>would explain not knowing that.
>

Never been there, though the news server my ISP utilizes is there. I
can also log onto one of several others from Texas to Nevada. All
prodigy. ISP: SBC. Go figure.

3210. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 09:14:01 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <sj24e1p6ge083gl79kcnprqgrij0ce7vk9@4ax.com>
Source record: 72876
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 22 Jul 2005 13:53:42 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>You guys are all wet, as usual... <satisfied-smirk>
>

I suppose then that you consider yourself to be firmly grounded in
reality.

3211. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 09:16:01 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <6m24e1hobrqucaa7pc4ifj6g5b028qetjc@4ax.com>
Source record: 72877
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 22 Jul 2005 23:49:42 -0400, keith <krw@att.bizzzz> Gave us:

>I hope you don't get your engineering information from CBS news too.

They have a second channel now? :-)

3212. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 10:01:24 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e215da_3@newsfeed.slurp.net>
Source record: 72878

"Roy Lewallen" wrote
> And you're also correct about Richard Clark's statement. Perhaps he is
> indeed attempting to do some MF broadcasting to his local
> area -- I just assumed he wasn't.

I did, too. But antennas carefully developed and documented for good MF broadcast performance also are useful for 160 meter ham applications.

And as far as significant radiation at elevation angles below 15 degrees, Richard Clark might have allowed for systems operating above 30 MHz, which include several ham bands, I believe. Use of these bands often is line-of-sight between terrestrial endpoints, and would not be very successful if all antennas had low relative fields near the horizon--as implied by Richard Clark's post. FM and TV broadcasting and public service radio (police/fire etc) use such low-angle radiation successfully, and so do ham radio operators.

RF

3213. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 11:13:43 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <y6udnZHFI-t5uH_fRVn-3A@bright.net>
Source record: 72879

Why do you need to shorten a dipole for 433 MHz? A half-wave dipole is
a bit over a foot in length...

Scott
N0EDV

pdrunen@aol.com wrote:

> Hi All,
>
> At 433 MHz UHF, I need to reduce the lenght of the dipole using loading
> coils or a better method.
>
> I need to know if there is a antenna program or a method to determine
> values and location.
>
> tnx de KJ4UO.
>

3214. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 11:17:14 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <y6udnZDFI-squ3_fRVn-3A@bright.net>
Source record: 72880

It's pretty early in the morning, but isn't that what the original
poster wants? To make an antenna physically shorter than normal? If
so, loading coils are the correct option. My only question is who would
need to physically shorten a UHF antenna in the first place?

Scott
N0EDV

Ham op wrote:

> Loading coils do NOT shorten an antenna! They electrically lengthen an
> antenna that is already physically too short.
>
> What do you really want to accomplish?
>
> pdrunen@aol.com wrote:
>
>> Hi All,
>>
>> At 433 MHz UHF, I need to reduce the lenght of the dipole using loading
>> coils or a better method.
>>
>> I need to know if there is a antenna program or a method to determine
>> values and location.
>>
>> tnx de KJ4UO.
>>
>

3215. jaycar uhf aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 11:28:06 UTC
From: gregB <gbarrell@telstra.com>
Message-ID: <bRpEe.969$TZ.11729@nnrp1.ozemail.com.au>
Source record: 72881

I am in Australia and have just bought
a Jaycar 91 element UHF TV aerial.

It is supposed to cover frequencies from 470 to 862 MHz.
I want to use it for Digital TV reception.

http://www1.jaycar.com.au/productView.asp?ID=LT3182&CATID=31&keywords=&SPECIAL=&form=CAT&ProdCodeOnly=&Keyword1=&Keyword2=&pageNumber=&priceMin=&priceMax=&SUBCATID=478

The aerial is in kit form
and main beam comes in three sections.

The cryptic instruction sheet does not say which way round
the centre of the three sections should go and there are
no indicating marks either.

Depending on which way you have it the spacing of the
elements in the centre section will change in relation to
elements in the other two sections.

Is this a problem?

Is there a way to check for the correct orientation
other than trying it both ways?

Thanks in advance,
Greg.

3216. Re: jaycar uhf aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 11:52:43 UTC
From: Dave <noone@nowhere.com>
Message-ID: <2-udnfTc6OEKsn_fRVn-1A@crocker.com>
Source record: 72882

well, there should be some logical progression from front to back on the antenna. normally the elements get larger as you go from the front to the back of the antenna. if you can't sort it out from the instructions, picture on the web or in the instruction book, then try calling their support line and ask.

"gregB" <gbarrell@telstra.com> wrote in message news:bRpEe.969$TZ.11729@nnrp1.ozemail.com.au...
>I am in Australia and have just bought
> a Jaycar 91 element UHF TV aerial.
>
> It is supposed to cover frequencies from 470 to 862 MHz.
> I want to use it for Digital TV reception.
>
> http://www1.jaycar.com.au/productView.asp?ID=LT3182&CATID=31&keywords=&SPECIAL=&form=CAT&ProdCodeOnly=&Keyword1=&Keyword2=&pageNumber=&priceMin=&priceMax=&SUBCATID=478
>
> The aerial is in kit form
> and main beam comes in three sections.
>
> The cryptic instruction sheet does not say which way round
> the centre of the three sections should go and there are
> no indicating marks either.
>
> Depending on which way you have it the spacing of the
> elements in the centre section will change in relation to
> elements in the other two sections.
>
> Is this a problem?
>
> Is there a way to check for the correct orientation
> other than trying it both ways?
>
> Thanks in advance,
> Greg.

3217. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 12:12:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <0vqEe.381$fH7.4428902@news.sisna.com>
Source record: 72884

Scott:

Maybe "the little people?"

John

"Scott" <acepilot@bloomer.net> wrote in message
news:y6udnZDFI-squ3_fRVn-3A@bright.net...
> It's pretty early in the morning, but isn't that what the original
> poster wants? To make an antenna physically shorter than normal?
> If so, loading coils are the correct option. My only question is
> who would need to physically shorten a UHF antenna in the first
> place?
>
> Scott
> N0EDV
>
> Ham op wrote:
>
>> Loading coils do NOT shorten an antenna! They electrically
>> lengthen an antenna that is already physically too short.
>>
>> What do you really want to accomplish?
>>
>> pdrunen@aol.com wrote:
>>
>>> Hi All,
>>>
>>> At 433 MHz UHF, I need to reduce the lenght of the dipole using
>>> loading
>>> coils or a better method.
>>>
>>> I need to know if there is a antenna program or a method to
>>> determine
>>> values and location.
>>>
>>> tnx de KJ4UO.
>>>
>>

3218. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 12:20:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122121411_315@spool6-east.superfeed.net>
Source record: 72883

Richard Clark wrote:
> It bears re-visiting to wrap this up, but I have no doubt it will make
> any impression on your future claims.

My mistake was a semantic one. I didn't know the definition
of "glare" and used the word improperly. I appologized for
that mistake as soon as I realized it. Because of the
incorrect definition, I probably inadvertenly made some
false statements about "glare". If you replace the word
"glare" with "reflections" in all my postings, the claims
are still valid, given the boundary conditions. One semantic
mistake does not overturn the laws of physics.

> Tomorrow we continue the brutal examination.

Since glare (defined properly) has nothing to do with
transmission lines, it is off topic for this thread.
This thread has always been about reflections. My
mistake was in thinking that "glare" and "reflections"
were synonyms.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3219. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 12:24:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <YFqEe.383$QE7.4405393@news.sisna.com>
Source record: 72885
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Firmly grounded?

Actually, when I am finished installing the mercedes turbo-jet engine
in the CFA, I plan on flying it!--well, after installing the carbon
graphite wings...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:sj24e1p6ge083gl79kcnprqgrij0ce7vk9@4ax.com...
> On Fri, 22 Jul 2005 13:53:42 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>You guys are all wet, as usual... <satisfied-smirk>
>>
>
> I suppose then that you consider yourself to be firmly grounded in
> reality.

3220. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 12:30:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <VLqEe.396$a6.4505751@news.sisna.com>
Source record: 72886

All joking aside...

I can see loading up elements as full length helical coils, shortening the boom and fitting it all in a briefcase.

Maybe use it on the next "James Bond" mission... or, with the hand held, just to shoot the breeze from the seventh-floor of the office balcony at lunch time...

John

"Scott" <acepilot@bloomer.net> wrote in message news:y6udnZDFI-squ3_fRVn-3A@bright.net...
> It's pretty early in the morning, but isn't that what the original
> poster wants? To make an antenna physically shorter than normal?
> If so, loading coils are the correct option. My only question is
> who would need to physically shorten a UHF antenna in the first
> place?
>
> Scott
> N0EDV
>
> Ham op wrote:
>
>> Loading coils do NOT shorten an antenna! They electrically
>> lengthen an antenna that is already physically too short.
>>
>> What do you really want to accomplish?
>>
>> pdrunen@aol.com wrote:
>>
>>> Hi All,
>>>
>>> At 433 MHz UHF, I need to reduce the lenght of the dipole using
>>> loading
>>> coils or a better method.
>>>
>>> I need to know if there is a antenna program or a method to
>>> determine
>>> values and location.
>>>
>>> tnx de KJ4UO.
>>>
>>

3221. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 13:42:26 UTC
From: Gary <danahers@comcast.net>
Message-ID: <JNWdnQecyJXX1H_fRVn-vw@comcast.com>
Source record: 72888
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

> Me thinks charlie is a kook.

With all this attention, one might think that someone in his county might hear of this and take a second look at the engineering. It might be true that being in the boonies, nobody really cared at the time when Charlie said he was goin' to put up a tower, But now that it is there, looking like a ride at CB World, they might want to review it. We also need to keep an eye on the SK list. Something could happen to innocent folks if it falls the wrong direction, and in my experience there is no right direction for a tower to fall.

3222. Re: jaycar uhf aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 13:49:54 UTC
From: gregB <gbarrell@telstra.com>
Message-ID: <7WrEe.999$TZ.12767@nnrp1.ozemail.com.au>
Source record: 72889

Dave, thanks for the reply.
The spacing does generally increase but not
progressively.
Some intervals are a few centimeters less than the previous one.
Greg.

Dave wrote:
> well, there should be some logical progression from front to back on the
> antenna. normally the elements get larger as you go from the front to the
> back of the antenna. if you can't sort it out from the instructions,
> picture on the web or in the instruction book, then try calling their
> support line and ask.
>
> "gregB" <gbarrell@telstra.com> wrote in message
> news:bRpEe.969$TZ.11729@nnrp1.ozemail.com.au...
>
>>I am in Australia and have just bought
>>a Jaycar 91 element UHF TV aerial.
>>
>>It is supposed to cover frequencies from 470 to 862 MHz.
>>I want to use it for Digital TV reception.
>>
>>http://www1.jaycar.com.au/productView.asp?ID=LT3182&CATID=31&keywords=&SPECIAL=&form=CAT
&ProdCodeOnly=&Keyword1=&Keyword2=&pageNumber=&priceMin=&priceMax=&SUBCATID=478
>>
>>The aerial is in kit form
>>and main beam comes in three sections.
>>
>>The cryptic instruction sheet does not say which way round
>>the centre of the three sections should go and there are
>>no indicating marks either.
>>
>>Depending on which way you have it the spacing of the
>>elements in the centre section will change in relation to
>>elements in the other two sections.
>>
>>Is this a problem?
>>
>>Is there a way to check for the correct orientation
>>other than trying it both ways?
>>
>>Thanks in advance,
>>Greg.
>

>
>

3223. Re: model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 14:06:05 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <pan.2005.07.23.14.06.05.471201@oceanfree.net>
Source record: 72887

On Sat, 11 Jun 2005 11:13:57 +0000, ml wrote:

> I am only haveing a mac, and never used any modeling software, can
> someone help me out, and given the above data what are the

You should be able to run NEC on a Mac.

http://www.si-list.org/swindex2.html

This page has a guite to compiling NEC-2 and
Xnecview on a modern OS-X/Darwin Mac.

73, Ed. EI9GQ.

--
Linux 2.6.12.1
Remove 'X' to reply by e-mail.

3224. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 15:09:06 UTC
From: keith <krw@att.bizzzz>
Message-ID: <pan.2005.07.23.15.09.04.722645@att.bizzzz>
Source record: 72892
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 09:16:01 +0000, NunYa Bidness wrote:

> On Fri, 22 Jul 2005 23:49:42 -0400, keith <krw@att.bizzzz> Gave us:
>
>>I hope you don't get your engineering information from CBS news too.
>
> They have a second channel now? :-)

Sure, they've been channeling a lot.

--
Keith

3225. Feeding a Copper Cactus with one coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 15:09:10 UTC
From: Larry <mcmlviii@comcast.net>
Message-ID: <3kf4stFu3jecU1@individual.net>
Source record: 72891

I want to build a 2m/220 J-pole from copper pipe for my HT. I have basic plans for the copper cactus, which calls for a separate feed for each band. My HT has but one RF output, so I'd like to use a single feed line, but I don't know how to terminate it for both stubs.

Any help would be appreciated.

Larry
N1POP

3226. Re: model/dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 15:49:33 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <pan.2005.07.23.15.49.32.840372@oceanfree.net>
Source record: 72890

On Sat, 23 Jul 2005 14:06:05 +0000, Eamon Skelton wrote:

> This page has a guite to compiling NEC-2 and
> Xnecview on a modern OS-X/Darwin Mac.

Doh! I forgot to include the URL.
http://www.scispot.org/archives/lab_technique/compiling_nec2_on_mac_os_x.html

73, Ed. EI9GQ.

--
Linux 2.6.12.1
Remove 'X' to reply by e-mail.

3227. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 15:49:38 UTC
From: richardharrison@webtv.net
Message-ID: <16854-42E26712-564@storefull-3258.bay.webtv.net>
Source record: 72893

Richard Fry wrote:
"Richard Clark might have allowed for systems operating above 30 MHz.,
which include several ham bands, I believe."

I believe so too.

From page 810 of Terman`s 1955 edition:
"Space-wave Propagation. At frequencies above about 30 MHz, the
ionosphere is not able to refract energy to earth, while the ground wave
attenuates to negligible amplitude in a relatively few hundred feet."

On the preceding page, 809, Terman presents Fig. 22-4 which gives among
other things the magnitude of the reflection coefficient for a
vertically polarized wave versus the incident and reflected angle
(symbol = psi, and they are identical). At zero-degrees, the coefficient
is 1.0. It falls to about 0.17 at 10-degrees, which is the minimum or
Pseudo Brewster Angle. From there, it rises to about 0.5 at 20-degrees,
and about 0.7 at 70-degrees incidence. The nip in vertically polarized
radiation does not exist at zero-degrees, the takeoff for ground wave
propagation. The ground wave is interactive with the surface all along
its path.

The space-wave does not depend upon interaction with the earth all along
its path, as the ground wave does. The wave along the earth at 30 MHz
and above "attenuates to negligible amplitude in a relatively few
hundred feet." It depnds upon reflection from the ionosphere or or
something else for popagation beyond the horizon.

Best regards, Richard Harrison, KB5WZI

3228. Re: jaycar uhf aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 16:17:36 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e326a$42e26dac$471c636a$31148@ALLTEL.NET>
Source record: 72894

The picture on the web site shows exactly how the center section should be.

"gregB" <gbarrell@telstra.com> wrote in message
news:bRpEe.969$TZ.11729@nnrp1.ozemail.com.au...
> I am in Australia and have just bought
> a Jaycar 91 element UHF TV aerial.
>
> It is supposed to cover frequencies from 470 to 862 MHz.
> I want to use it for Digital TV reception.
>
>
http://www1.jaycar.com.au/productView.asp?ID=LT3182&CATID=31&keywords=&SPECIAL=&form=CAT&P
rodCodeOnly=&Keyword1=&Keyword2=&pageNumber=&priceMin=&priceMax=&SUBCATID=478
>
> The aerial is in kit form
> and main beam comes in three sections.
>
> The cryptic instruction sheet does not say which way round
> the centre of the three sections should go and there are
> no indicating marks either.
>
> Depending on which way you have it the spacing of the
> elements in the centre section will change in relation to
> elements in the other two sections.
>
> Is this a problem?
>
> Is there a way to check for the correct orientation
> other than trying it both ways?
>
> Thanks in advance,
> Greg.

3229. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 16:45:49 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e2749e_2@newsfeed.slurp.net>
Source record: 72895

"Richard Harrison" wrote:
>The wave along the earth at 30 MHz and above "attenuates to
>negligible amplitude in a relatively few hundred feet."

However this not mean that a direct ray at VHF and above cannot propagate well on a line-of-sight path near the Earth that is tens of miles in length--especially if a Fresnel clearance of 0.7 or better exists for the path. Such service is produced by radiation from the transmit antenna typically at elevation angles from zero to several degrees BELOW the horizontal plane.

If otherwise, the service areas of TV and FM broadcast stations would be very small.

RF

3230. Looking For Leon, W5GY

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 16:56:11 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <iat4e11q25cmro3rgjktt3s6r829qa6lbf@4ax.com>
Source record: 72896

Leon, I just now discovered your request for my data on antenna terminal impedances for various heights above ground. I'm sorry to have missed your request when you asked for it,, so I tried to send the data to the email address shown on your posting. However, the address 'EXDAX143@YAHOO.COM did not work.

If you'll send me your correct email address I'll send you the data you requested.

Walt, W2DU

3231. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 17:39:12 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <3605e1l2erm97mr4qckcvqu1rt7u6ki253@4ax.com>
Source record: 72897
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 05:24:20 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Firmly grounded?

Yes. You made an all wet joke. I made an electrical joke that you
should have gotten.
>
>Actually, when I am finished installing the mercedes turbo-jet engine
>in the CFA, I plan on flying it!--well, after installing the carbon
>graphite wings...

Perhaps you did.

Top posting is very bad.

3232. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 18:27:56 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <P_vEe.452$vL4.5725334@news.sisna.com>
Source record: 72899
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

OK.

It is like this, years ago, in the 1980's, when telnet was still being used on the predecessors of newsgroups, there was no way to logically organize "posts."

Still, into the 90's, most all "news clients" lacked any meaningful way to organize threads and/or posts.

At the end of the 90's a few news clients managed to "get-it-together" and organize threads and posts with pretty good results.

Now it is 2005. Windows xp comes with a completely functional news reader which holds threads and posts in perfect order--no longer do I have to have the text being responded to placed above the text which is being issued in response. Still, many ancient news readers are in use, and the users have not bothered to upgrade them. Also, many are reading these posts from webpages...

That is all their responsibility now, if they are unwilling or unable to setup a decent news reader and come up to speed, that is their problem--there is NO longer a real need to bottom post, indeed, it only slows down ones interaction with the group and places an un-necessary burden to be cutting and pruning text...

... the etiquette and use manuals of usenet need upgrading ...

I will be top posting...

end of story...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:3605e1l2erm97mr4qckcvqu1rt7u6ki253@4ax.com...
> On Sat, 23 Jul 2005 05:24:20 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Firmly grounded?
>
> Yes. You made an all wet joke. I made an electrical joke that you
> should have gotten.
>>
>>Actually, when I am finished installing the mercedes turbo-jet
>>engine
>>in the CFA, I plan on flying it!--well, after installing the carbon

>>graphite wings...
>
> Perhaps you did.
>
> Top posting is very bad.

3233. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 18:30:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <c1wEe.453$JV4.5765266@news.sisna.com>
Source record: 72898
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

oh yeah...

It is a half-wave CFA. No ground plane/counterpoise is needed...
I live in calif, who worries about lightning here...
<grin>

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:3605e1l2erm97mr4qckcvqu1rt7u6ki253@4ax.com...
> On Sat, 23 Jul 2005 05:24:20 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Firmly grounded?
>
> Yes. You made an all wet joke. I made an electrical joke that you
> should have gotten.
>>
>>Actually, when I am finished installing the mercedes turbo-jet
>>engine
>>in the CFA, I plan on flying it!--well, after installing the carbon
>>graphite wings...
>
> Perhaps you did.
>
> Top posting is very bad.

3234. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:04:55 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <tb45e1lp8o3g17nhidk16hs1r8b665lf0h@4ax.com>
Source record: 72900
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>OK.
>
>It is like this, years ago, in the 1980's, when telnet was still being
>used on the predecessors of newsgroups, there was no way to logically
>organize "posts."

I think that you have history problems.
>
>Still, into the 90's, most all "news clients" lacked any meaningful
>way to organize threads and/or posts.

I know that you have history problems.
>
>At the end of the 90's a few news clients managed to "get-it-together"
>and organize threads and posts with pretty good results.

I think that you have a problem with opinion over fact as well.

>
>Now it is 2005. Windows xp comes with a completely functional news
>reader which holds threads and posts in perfect order--no longer do I
>have to have the text being responded to placed above the text which
>is being issued in response.

Guess what? You are not the only person that is reading a thread,
and those that are are not all on windows xp. Outlook express is a
dog. It has also been around way longer than XP has.

You assume way too much, and those assumptions have ALWAYS screwed
up someone that doesn't live in your perfect world of "organized
articles".

There are protocols in place for this very reason, and all the logic
you throw at it doesn't change that fact.

> Still, many ancient news readers are in
>use, and the users have not bothered to upgrade them.

That has not a thing to do with the problem. Your opinion about
what is or is not a good news reader has NO bearing on proper
protocol. The problem is that posters such as yourself ASSUME way too
much, and no one else in the world needs to cater to YOUR idea of what
is modern. Again, Outhouse Express is a total dog. That opinion is

held in the eyes of many.

> Also, many are
>reading these posts from webpages...

Another tragic screw up. Especially when they reply from web
access.

>That is all their responsibility now, if they are unwilling or unable
>to setup a decent news reader and come up to speed, that is their
>problem

I find that you are unwilling or to stupid to understand the fact
that not everyone even reads news the way you do. I happen to read
posts chronologically, despite my reader's capacity to show threads in
a grouped manner. That is a choice. Deciding to throw out the
standard accepted decades long protocols based on your opinion of what
is or is not modern is just plain arrogant ignorance.

>--there is NO longer a real need to bottom post, indeed, it
>only slows down ones interaction with the group and places an
>un-necessary burden to be cutting and pruning text...

You are NOT anyone that can declare such a thing.
>
>... the etiquette and use manuals of usenet need upgrading ...

Your brain needs to conform. That is the only upgrade required.

You claim others haven't gotten up to your modern standard and that
is where YOU are wrong. Despite any news reader clients capacity for
sorting articles, it is ALWAYS proper to make the post in a manner
such that a person reading ONLY that post can garner the gist of the
article WITHOUT any requisite to read additional articles. THAT is
the whole point. Not only that, but you idiots invariably quote the
entire article to which you respond, which is another mistake.

>I will be top posting...

You are stupid... You utilization of Outhouse Express proves that
beyond a doubt. I am surprised that you aren't posting in HTML and
defending that as well. What a total ditz you must be.

>end of story...

End of fact finding and declaring mission.

3235. Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:05:16 UTC
From: solidgold@optonline.net
Message-ID: <42e294ea.6304682@news.optonline.net>
Source record: 72901

Hi All,

I have a Hustler 5BTV that finally bit the dust after 25 years. I had my house painted last year, and the painter's ladder got into an argument with the antenna a few times, and just about destroyed it. I'm looking for something that will do at least 80 thru 10--WARC bands would be nice, and if there is one that also covers 160, that would even be nicer. What do you recommend.

RON.....KA2IIA
==========
Remove the ZZZ from my E-mail address to send me E-mail.

3236. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:10:41 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dbu4nhgcr1@mailhub227.itcs.purdue.edu>
Source record: 72902

Make sure you investigate Butternut verticals
http://www.bencher.com/hf6vx.html

"Ron Goldstein--KA2IIA" <solidgold@optonline.net> wrote in message
news:42e294ea.6304682@news.optonline.net...
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had
> my
> house painted last year, and the painter's ladder got into an argument
> with the
> antenna a few times, and just about destroyed it. I'm looking for
> something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one
> that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> ==========
> Remove the ZZZ from my E-mail address to send me E-mail.

3237. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:19:25 UTC
From: Walter Raleigh <walterraleigh69ANTISPAM@hotmail.com>
Message-ID: <j3NEe.2873$R5.656@news.indigo.ie>
Source record: 72839
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:cq45e19s9d62gdkh497m84utnsrrp0f9vq@4ax.com...
> And I will be killfiling you, like all other top-posting fools ....
> because top-posters invariably have nothing to say that is worth
> reading.
>
> Goodbye.

What? Polymath too? Surely not...

--
73s de Walter R.

3238. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:35:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <YZwEe.469$SL4.5742653@news.sisna.com>
Source record: 72903
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Ohh gee:

Killfiled :(

What if I told ya to shove the whole killfile up yer bum, would that
make it ok?

ROFLOL

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:cq45e19s9d62gdkh497m84utnsrrp0f9vq@4ax.com...
> On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>I will be top posting...
>
> And I will be killfiling you, like all other top-posting fools ....
> because top-posters invariably have nothing to say that is worth
> reading.
>
> Goodbye.
>
> --
> Walt Davidson Email: g3nyy
> @despammed.com

3239. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:35:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <L8qdnQLDqKiAAX_fRVn-jQ@crocker.com>
Source record: 72904

first find a new painter so it doesn't happen again.

"Ron Goldstein--KA2IIA" <solidgold@optonline.net> wrote in message
news:42e294ea.6304682@news.optonline.net...
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had
> my
> house painted last year, and the painter's ladder got into an argument
> with the
> antenna a few times, and just about destroyed it. I'm looking for
> something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one
> that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> ==========
> Remove the ZZZ from my E-mail address to send me E-mail.

3240. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:36:01 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <efc12$42e29c3d$471c636a$9358@ALLTEL.NET>
Source record: 72906
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

And I thought you Brits were supposed to be so tolerant of diversity... Here I find you making broad generalizations based on the position of words on a screen. One can only assume you are a narrow minded word position bigot! You will be doomed to hell for your non politically correct speech, possibly even jailed for hate speech...

"Walt Davidson" <g3nyy@despammed.com> wrote in message news:cq45e19s9d62gdkh497m84utnsrrp0f9vq@4ax.com...
> On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
> >I will be top posting...
>
> And I will be killfiling you, like all other top-posting fools ....
> because top-posters invariably have nothing to say that is worth
> reading.
>
> Goodbye.
>
> --
> Walt Davidson Email: g3nyy @despammed.com

3241. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:37:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ccef3$42e29c94$471c636a$9508@ALLTEL.NET>
Source record: 72905

Let me suggest gamma matching the painter and his ladder.

"Ron Goldstein--KA2IIA" <solidgold@optonline.net> wrote in message
news:42e294ea.6304682@news.optonline.net...
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had
my
> house painted last year, and the painter's ladder got into an argument
with the
> antenna a few times, and just about destroyed it. I'm looking for
something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one
that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> ==
> Remove the ZZZ from my E-mail address to send me E-mail.

3242. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:38:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <U0xEe.471$hP4.5752930@news.sisna.com>
Source record: 72907
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Nunya:

Look, I am not even going to take the time to read all that crap.

If you want to say something to me, don't intermingle it together with all the text I just wrote, I remember what I wrote, just write a damn reply...

However, I think the jest (haha) of your text attempts to make me format my text for your text reader--get a clue buddy, if you want to read it, you format it!!!

Killfile me otherwise, I will be crushed, but I will get over it...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:tb45e1lp8o3g17nhidk16hs1r8b665lf0h@4ax.com...
> On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>OK.
>>
>>It is like this, years ago, in the 1980's, when telnet was still
>>being
>>used on the predecessors of newsgroups, there was no way to
>>logically
>>organize "posts."
>
> I think that you have history problems.
>>
>>Still, into the 90's, most all "news clients" lacked any meaningful
>>way to organize threads and/or posts.
>
> I know that you have history problems.
>>
>>At the end of the 90's a few news clients managed to
>>"get-it-together"
>>and organize threads and posts with pretty good results.
>
> I think that you have a problem with opinion over fact as well.
>
>>
>>Now it is 2005. Windows xp comes with a completely functional news
>>reader which holds threads and posts in perfect order--no longer do

>>I
>>have to have the text being responded to placed above the text which
>>is being issued in response.
>
> Guess what? You are not the only person that is reading a thread,
> and those that are are not all on windows xp. Outlook express is a
> dog. It has also been around way longer than XP has.
>
> You assume way too much, and those assumptions have ALWAYS screwed
> up someone that doesn't live in your perfect world of "organized
> articles".
>
> There are protocols in place for this very reason, and all the
> logic
> you throw at it doesn't change that fact.
>
>> Still, many ancient news readers are in
>>use, and the users have not bothered to upgrade them.
>
> That has not a thing to do with the problem. Your opinion about
> what is or is not a good news reader has NO bearing on proper
> protocol. The problem is that posters such as yourself ASSUME way
> too
> much, and no one else in the world needs to cater to YOUR idea of
> what
> is modern. Again, Outhouse Express is a total dog. That opinion is
> held in the eyes of many.
>
>> Also, many are
>>reading these posts from webpages...
>
> Another tragic screw up. Especially when they reply from web
> access.
>
>>That is all their responsibility now, if they are unwilling or
>>unable
>>to setup a decent news reader and come up to speed, that is their
>>problem
>
> I find that you are unwilling or to stupid to understand the fact
> that not everyone even reads news the way you do. I happen to read
> posts chronologically, despite my reader's capacity to show threads
> in
> a grouped manner. That is a choice. Deciding to throw out the
> standard accepted decades long protocols based on your opinion of
> what
> is or is not modern is just plain arrogant ignorance.
>
>>--there is NO longer a real need to bottom post, indeed, it
>>only slows down ones interaction with the group and places an

>>un-necessary burden to be cutting and pruning text...
>
> You are NOT anyone that can declare such a thing.
>>
>>... the etiquette and use manuals of usenet need upgrading ...
>
> Your brain needs to conform. That is the only upgrade required.
>
> You claim others haven't gotten up to your modern standard and that
> is where YOU are wrong. Despite any news reader clients capacity
> for
> sorting articles, it is ALWAYS proper to make the post in a manner
> such that a person reading ONLY that post can garner the gist of the
> article WITHOUT any requisite to read additional articles. THAT is
> the whole point. Not only that, but you idiots invariably quote the
> entire article to which you respond, which is another mistake.
>
>>I will be top posting...
>
> You are stupid... You utilization of Outhouse Express proves that
> beyond a doubt. I am surprised that you aren't posting in HTML and
> defending that as well. What a total ditz you must be.
>
>>end of story...
>
> End of fact finding and declaring mission.

3243. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 19:48:43 UTC
From: richardharrison@webtv.net
Message-ID: <16854-42E29F1B-611@storefull-3258.bay.webtv.net>
Source record: 72908

Richard Fry wrote:
"Such service (VHF and above) is produced by radiation from the transmit antenna typically at elevation angles from zero to several degrees BELOW the horizontal plane."

A broadcaster doesn`t want to skip over his station`s nearby customers. His distant customers likely receive the station from a grazing incidence due to earth curvature.

I initially set dishfeeds on point to point microwave systems with a carpenter`s level for the right elevation angle. I seldom was able to improve the signal using on-the-air adjustment of antenna vertical elevations.

In Scotland a few weeks ago I noticed the Satellite dishes aimed at birds parked over the equator. Scotland is so far north that the dishfeeds seemed horizontal. I saw some that dipped below the horizontal. I doubt those were adjusted for best results. The beamwidth is probably enough to get a picture anyway.

The point to point paths we designed had enough clearance to allow anomalous atmospheres making the earth appear half again its actual size. To that grazing point clearance, we added 0.6 1st Fresnel zone clearance.,

Then we produced paths with 40 dB fade margins and limited the paths to 22 miles. Where we could, we produced redundant paths through looped systems or space diversity.

High fade margins help when there are no fades by suppressing system noise, a must in long systems with many hops.

Best regards, Richard Harrison, KB5WZI

3244. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 20:06:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <NrxEe.481$z56.5819505@news.sisna.com>
Source record: 72909
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Fred:

I hate to admit it, but that made me damn near split a gut! <lol>

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:efc12$42e29c3d$471c636a$9358@ALLTEL.NET...
> And I thought you Brits were supposed to be so tolerant of
> diversity... Here
> I find you making broad generalizations based on the position of
> words on a
> screen. One can only assume you are a narrow minded word position
> bigot! You
> will be doomed to hell for your non politically correct speech,
> possibly
> even jailed for hate speech...
>
> "Walt Davidson" <g3nyy@despammed.com> wrote in message
> news:cq45e19s9d62gdkh497m84utnsrrp0f9vq@4ax.com...
>> On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
>> <assemblywizard@gmail.com> wrote:
>>
>> >I will be top posting...
>>
>> And I will be killfiling you, like all other top-posting fools ....
>> because top-posters invariably have nothing to say that is worth
>> reading.
>>
>> Goodbye.
>>
>> --
>> Walt Davidson Email: g3nyy
>> @despammed.com
>
>

3245. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 20:38:42 UTC
From: richardharrison@webtv.net
Message-ID: <16854-42E2AAD2-622@storefull-3258.bay.webtv.net>
Source record: 72910

OOPS!

Half again normal size? No, 2/3 normal size. It requires taller towers..

Best regards, Richard Harrison, KB5WZI

3246. Re: loading coils for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 20:39:50 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <BKydnbTAkIPtMX_fRVn-vQ@comcast.com>
Source record: 72911

So it can be hidden with the explosives ?????

Scott wrote:

> Why do you need to shorten a dipole for 433 MHz? A half-wave dipole is
> a bit over a foot in length...
>
> Scott
> N0EDV

3247. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 20:57:12 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <ofb5e11uvqsulbqge3unb7d2dtsrghegd3@4ax.com>
Source record: 72912

I've had good luck with my Butternut which I've had for about 15 years. Mine doesn't have the WARC except for 30 meters but you can get one that does do WARC's and even mine can be modified with an aftermarket conversion kit from Butternut. I have had two occasions to order replacement parts (a matching section and a "doornob" capacitor and sevice from Bencher was outstanding...about two days from Chicago area to Maryland.

Mine is ground mounted. Its been good for DXCC, mostly on 40. 80 meter bandwidth is quite narrow though, but I have about 30 countries with it. I think they have another version, a bit taller, which is for 80 and 40 only. I don't remember if they sell 160 coils.

Jon Teske, W3JT

On Sat, 23 Jul 2005 19:05:16 GMT, solidgold@optonline.net (Ron Goldstein--KA2IIA) wrote:

>Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had my
>house painted last year, and the painter's ladder got into an argument with the
>antenna a few times, and just about destroyed it. I'm looking for something that
>will do at least 80 thru 10--WARC bands would be nice, and if there is one that
>also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
>===
>Remove the ZZZ from my E-mail address to send me E-mail.

3248. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 21:02:30 UTC
From: Don Baker <n2mcg@comcast.net>
Message-ID: <mu6dnS630cmtLX_fRVn-tQ@comcast.com>
Source record: 72913

I will probably get flamed badly for this, but, I bought an MFJ-1798A. It covers 2 meters through 80 meters. I use it with both a ts-440 S/AT and a yaesu FT-817. I have gotten great reports from both all the way down to 1/2 watt. Mine is "mounted" on 10 ft of mast in the middle of a small city lot and I love it.

-=DiB=-
N2MCG

"Ron Goldstein--KA2IIA" <solidgold@optonline.net> wrote in message news:42e294ea.6304682@news.optonline.net...
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had my
> house painted last year, and the painter's ladder got into an argument with the
> antenna a few times, and just about destroyed it. I'm looking for something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> ==========
> Remove the ZZZ from my E-mail address to send me E-mail.

3249. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 21:36:05 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <a3e5e1hucmmjf8vc2i52viv3tqruod0mrb@4ax.com>
Source record: 72914
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 19:59:23 +0100, Walt Davidson
<g3nyy@despammed.com> Gave us:

>On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
><assemblywizard@gmail.com> wrote:
>
>>I will be top posting...
>
>And I will be killfiling you, like all other top-posting fools ....
>because top-posters invariably have nothing to say that is worth
>reading.
>
Goodbye. Oh yeah... I forgot to mention that this is the other effect
of top posting. Good job.

3250. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 21:40:55 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <c7e5e193qj2cibjd8nki0akhdj7smgnv78@4ax.com>
Source record: 72915
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 15:36:01 -0400, "Fred W4JLE" <w4jle@w4jle.com>
Gave us:

>And I thought you Brits were supposed to be so tolerant of diversity... Here
>I find you making broad generalizations based on the position of words on a
>screen. One can only assume you are a narrow minded word position bigot! You
>will be doomed to hell for your non politically correct speech, possibly
>even jailed for hate speech...

Top posting in a forum for professionals, when one claims to be one,
and the PROTOCOL is NOT to do so, could easily be argued as quite
narrow minded.

The word for today is CONFORMITY.

You conform to standards every day. Many that you have no choice
on. In these forums, just because your lame news reader was written
by a total ditz that gets way more money for his products than he
deserves, doesn't mean that you should just go with your lazy assed
flow. Do you also wear your pants down past your ass, like these
other kids today?

3251. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 21:45:29 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <ffe5e1dh6gf84clcvnf992k8o5j3iar8sb@4ax.com>
Source record: 72916
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 12:38:23 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Nunya:
>
>Look, I am not even going to take the time to read all that crap.
>

Yet another fallacy of your basic stupid top posting twit.

>If you want to say something to me, don't intermingle it together with
>all the text I just wrote, I remember what I wrote, just write a damn
>reply...

Look, ditzo boy, I answer where appropriate. LEARN a bit about
Usenet, dumbass.

>However, I think the jest (haha) of your text attempts to make me
>format my text for your text reader--get a clue buddy, if you want to
>read it, you format it!!!

I don't want to read it. I feel that I will subsequently be
filtering it. The IT being you.
>
>Killfile me otherwise, I will be crushed, but I will get over it...

You're an idiot, and it looks as if you won't be getting over that
fact. An easy tell is that you quoted 100 lines to post your utter
tripe. Thank you for proving my points.

3252. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 21:46:52 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <pme5e1lrpqhls3qv92devpamnt4hmfjkol@4ax.com>
Source record: 72917
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 13:06:49 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Fred:
>
>I hate to admit it, but that made me damn near split a gut! <lol>
>
Said the idiot that quoted 35 lines to make yet another
unprofessional, one liner, stupid, off topic reply.

3253. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:04:27 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <F4CdnbbRn-tkI3_fRVn-tw@comcast.com>
Source record: 72918

"Ron Goldstein--KA2IIA" <solidgold@optonline.net> wrote in message
news:42e294ea.6304682@news.optonline.net...
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had
> my
> house painted last year, and the painter's ladder got into an argument
> with the
> antenna a few times, and just about destroyed it. I'm looking for
> something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one
> that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> Remove the ZZZ from my E-mail address to send me e-Mail.
> ==========

Personally - if you like it and it worked well - I would just rebuild it !
http://www.dxengineering.com/Products.asp?ID=13&SecID=16&DeptID=8

Of course -- it does not work 160 meters and 80 meter has a limited
bandwidth.
http://www.dxengineering.com/Products.asp?ID=34&SecID=16&DeptID=8

It's still made ... gets high marks for a vertical requiring radials.
Hustler 5-BTV assembly manual and parts list
http://www.dxengineering.com/pdf/hustler_4btv5btv_instl.pdf

You may want to look at the HyGain AV-18HT (HyTower) vertical
(not cheap - but great vertical)
http://www.hy-gain.com/products.php?prodid=AV-18HT

w9gb

3254. Sort of an antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:23:58 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <1szEe.19053$Eo.1109@fed1read04>
Source record: 72919

Anyone know who has the best price for 100' of
8 conductor rotor cable? Ham III rotor turning a
Mosley TA-33M for a load.

--
Just my 2¢... 73 es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

3255. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:24:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <9szEe.519$S73.6624348@news.sisna.com>
Source record: 72920
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa:

As senior software engineer, you bet I know about conformance!!!

I set the rules... well, unless someone can propose a good argument
why they should be broken.

Yanno, that is what college is all about, you are forced to learn the
rules--so you can effectively bend and break 'em for a buck...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:c7e5e193qj2cibjd8nki0akhdj7smgnv78@4ax.com...
> On Sat, 23 Jul 2005 15:36:01 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> Gave us:
>
>>And I thought you Brits were supposed to be so tolerant of
>>diversity... Here
>>I find you making broad generalizations based on the position of
>>words on a
>>screen. One can only assume you are a narrow minded word position
>>bigot! You
>>will be doomed to hell for your non politically correct speech,
>>possibly
>>even jailed for hate speech...
>
>
> Top posting in a forum for professionals, when one claims to be
> one,
> and the PROTOCOL is NOT to do so, could easily be argued as quite
> narrow minded.
>
> The word for today is CONFORMITY.
>
> You conform to standards every day. Many that you have no choice
> on. In these forums, just because your lame news reader was written
> by a total ditz that gets way more money for his products than he
> deserves, doesn't mean that you should just go with your lazy assed
> flow. Do you also wear your pants down past your ass, like these
> other kids today?

3256. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:24:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XszEe.520$q83.6640762@news.sisna.com>
Source record: 72921
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Waaaaaaaa...
Waaaaaaa...
Waaaa...

Ok, I feel better now... :)

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:a3e5e1hucmmjf8vc2i52viv3tqruod0mrb@4ax.com...
> On Sat, 23 Jul 2005 19:59:23 +0100, Walt Davidson
> <g3nyy@despammed.com> Gave us:
>
>>On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
>><assemblywizard@gmail.com> wrote:
>>
>>>I will be top posting...
>>
>>And I will be killfiling you, like all other top-posting fools ....
>>because top-posters invariably have nothing to say that is worth
>>reading.
>>
> Goodbye. Oh yeah... I forgot to mention that this is the other
> effect
> of top posting. Good job.

3257. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:24:56 UTC
From: "M. J. Powell" <mike@DeLeTe.pickmere.demon.co.uk>
Message-ID: <Yz$xX4u4Os4CFwzH@pickmere.demon.co.uk>
Source record: 72923

In message <16854-42E2AAD2-622@storefull-3258.bay.webtv.net>, Richard Harrison <richardharrison@webtv.net> writes
>OOPS!
>
>Half again normal size? No, 2/3 normal size. It requires taller towers..

Our graph paper was drawn to 4/3 earth radius.

Mike
--
M.J.Powell

3258. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:27:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <%uzEe.521$nd3.6671408@news.sisna.com>
Source record: 72922
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Forget it, just remember this, if you are short, to the point, and ALL
the text is logical and necessary, I read it--if not, forget it...
really, I expect the same others regarding my text...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:ffe5e1dh6gf84clcvnf992k8o5j3iar8sb@4ax.com...
> On Sat, 23 Jul 2005 12:38:23 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Nunya:
>>
>>Look, I am not even going to take the time to read all that crap.
>>
>
> Yet another fallacy of your basic stupid top posting twit.
>
>>If you want to say something to me, don't intermingle it together
>>with
>>all the text I just wrote, I remember what I wrote, just write a
>>damn
>>reply...
>
> Look, ditzo boy, I answer where appropriate. LEARN a bit about
> Usenet, dumbass.
>
>>However, I think the jest (haha) of your text attempts to make me
>>format my text for your text reader--get a clue buddy, if you want
>>to
>>read it, you format it!!!
>
> I don't want to read it. I feel that I will subsequently be
> filtering it. The IT being you.
>>
>>Killfile me otherwise, I will be crushed, but I will get over it...
>
> You're an idiot, and it looks as if you won't be getting over that
> fact. An easy tell is that you quoted 100 lines to post your utter
> tripe. Thank you for proving my points.

3259. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:52:35 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <rei5e1ltsseobvodiirhcc3sq5a8hm2icf@4ax.com>
Source record: 72924
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 15:24:02 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>NunYa:
>
>As senior software engineer, you bet I know about conformance!!!

Apparently not, you top posting twit.
>
>I set the rules... well, unless someone can propose a good argument
>why they should be broken.

You are breaking the rules. You certainly don't get to declare them
in a forum that has been around long before you began posting to it.
>
>Yanno, that is what college is all about, you are forced to learn the
>rules--so you can effectively bend and break 'em for a buck...

Aahhhh... The age old "I do whatever the hell I want." argument.
Nobody is getting paid here, dingledorf. It is a matter of common
courtesy.

3260. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:53:39 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <9ki5e1h5qlbq1iqtd333k00brff1v2kph2@4ax.com>
Source record: 72825
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 15:24:52 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Waaaaaaaa...

Wussy

>Waaaaaaa...

Wussy

>Waaaa...

Wussy.

>
>Ok, I feel better now... :)

Major, inconsiderate wussy.

>
>John

Yes... you.

3261. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 22:57:01 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <ami5e1hi3vffsekevmee0k67lcb8vqgsqv@4ax.com>
Source record: 72826
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 15:27:02 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Forget it, just remember this, if you are short,

The only thing you are short on in this issue, is brains.

> to the point,

You have expressed exactly zero valid points.

> and ALL
>the text is logical and necessary,

Like the 100 line quoted texts you seem to ignore?
You know little or nothing about Usenet, if you cannot even follow the
first rule.

> I read it--if not, forget it...

More like, forget you.

>really, I expect the same others regarding my text...

It isn't about "your" text. The posts aren't about "you", nor are
they for you... even your own posts. You don't appear to be someone
that can get that simple fact.

3262. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 23:41:15 UTC
From: Jerseyj <jerseyj69@comcast.net>
Message-ID: <jerseyj69-7AD6D7.19411523072005@comcast.dca.giganews.com>
Source record: 72827

Then make him pay for the new antenna!

In article <L8qdnQLDqKiAAX_fRVn-jQ@crocker.com>,
"Dave" <noone@nowhere.com> wrote:

> first find a new painter so it doesn't happen again.
>
> "Ron Goldstein--KA2IIA" <solidgold@optonline.net> wrote in message
> news:42e294ea.6304682@news.optonline.net...
> > Hi All,
> >
> > I have a Hustler 5BTV that finally bit the dust after 25 years. I had
> > my
> > house painted last year, and the painter's ladder got into an argument
> > with the
> > antenna a few times, and just about destroyed it. I'm looking for
> > something that
> > will do at least 80 thru 10--WARC bands would be nice, and if there is one
> > that
> > also covers 160, that would even be nicer. What do you recommend.
> >
> >
> > RON.....KA2IIA
> > ==========
> > Remove the ZZZ from my E-mail address to send me E-mail.
>
>

3263. Re: jaycar uhf aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-23 23:49:16 UTC
From: gregB <gbarrell@telstra.com>
Message-ID: <1IAEe.1029$TZ.14965@nnrp1.ozemail.com.au>
Source record: 72828

Fred, thanks for the reply.

Yes, the photo does show a longer interval at the
left end and is probably correct.

I think this is helped by the perspective of the photo.
On the ground both orientations look plausible.

Also this assumes it was put together correctly
and not at random buy the advertising department.

I was really hoping there might be a formula for
working out the element spacing.

Regards,
Greg.

Fred W4JLE wrote:
> The picture on the web site shows exactly how the center section should be.
>
> "gregB" <gbarrell@telstra.com> wrote in message
> news:bRpEe.969$TZ.11729@nnrp1.ozemail.com.au...
>
>>I am in Australia and have just bought
>>a Jaycar 91 element UHF TV aerial.
>>
>>It is supposed to cover frequencies from 470 to 862 MHz.
>>I want to use it for Digital TV reception.
>>
>>
>
> http://www1.jaycar.com.au/productView.asp?ID=LT3182&CATID=31&keywords=&SPECIAL=&form=CAT
&ProdCodeOnly=&Keyword1=&Keyword2=&pageNumber=&priceMin=&priceMax=&SUBCATID=478
>
>>The aerial is in kit form
>>and main beam comes in three sections.
>>
>>The cryptic instruction sheet does not say which way round
>>the centre of the three sections should go and there are
>>no indicating marks either.
>>
>>Depending on which way you have it the spacing of the
>>elements in the centre section will change in relation to
>>elements in the other two sections.
>>
>>Is this a problem?

>>
>>Is there a way to check for the correct orientation
>>other than trying it both ways?
>>
>>Thanks in advance,
>>Greg.
>
>
>

3264. Re: AD5TH Tower - Storm Damage Photos

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 00:10:44 UTC
From: Radio Active <no1@home.not>
Message-ID: <Xns969CAEBEEA7D9no1homenot@216.196.97.136>
Source record: 72829
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Charlie" <charlie@earthlink.net> scribbled in
news:11d5c9ls4rt5p7c@news.supernews.com:

> In all honesty to those that ridiculed the tower and it's associated
> riggings etc...I have posted photos of the damage incurred from the
> category 4 hurricane Dennis. I never expected this kind of
> result...live and learn I suppose. Here is the direct link..
>
> 1. http://deepsouthnet.net/storm_damage.html
>

Oh wow, that's just terrible! How will you ever recover? ;-)

73
Ed

3265. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 00:41:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <TsBEe.562$lz5.6940705@news.sisna.com>
Source record: 72830
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Forget it...

I can now go the rest of my life with no futher conversation with you.
You have nothing I need...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:ami5e1hi3vffsekevmee0k67lcb8vqgsqv@4ax.com...
> On Sat, 23 Jul 2005 15:27:02 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Forget it, just remember this, if you are short,
>
> The only thing you are short on in this issue, is brains.
>
>> to the point,
>
> You have expressed exactly zero valid points.
>
>> and ALL
>>the text is logical and necessary,
>
> Like the 100 line quoted texts you seem to ignore?
> You know little or nothing about Usenet, if you cannot even follow
> the
> first rule.
>
>> I read it--if not, forget it...
>
> More like, forget you.
>
>>really, I expect the same others regarding my text...
>
> It isn't about "your" text. The posts aren't about "you", nor are
> they for you... even your own posts. You don't appear to be
> someone
> that can get that simple fact.

3266. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 00:43:20 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <KuBEe.563$Lz5.6943854@news.sisna.com>
Source record: 72831
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Dude:

I leave you here. If top posting is a real issue to you, I just hope
you will survive life when a real problem comes your way...

I'd suggest you killfile me, or get used to top posting...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:rei5e1ltsseobvodiirhcc3sq5a8hm2icf@4ax.com...
> On Sat, 23 Jul 2005 15:24:02 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>NunYa:
>>
>>As senior software engineer, you bet I know about conformance!!!
>
> Apparently not, you top posting twit.
>>
>>I set the rules... well, unless someone can propose a good argument
>>why they should be broken.
>
> You are breaking the rules. You certainly don't get to declare
> them
> in a forum that has been around long before you began posting to it.
>>
>>Yanno, that is what college is all about, you are forced to learn
>>the
>>rules--so you can effectively bend and break 'em for a buck...
>
> Aahhhh... The age old "I do whatever the hell I want." argument.
> Nobody is getting paid here, dingledorf. It is a matter of common
> courtesy.

3267. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 01:09:50 UTC
From: richardharrison@webtv.net
Message-ID: <19855-42E2EA5E-725@storefull-3255.bay.webtv.net>
Source record: 72832

Mike Powell wrote:
"Our graph paper was drawn to 4/3 earth radius."

VHF and higher frequencies are generally said to require a line-of-sight path.

Terman writes on page 820 of his 1955 edition:
"For the standard atmosphere, where dM/dh=0.036, the equivalent radius is 4/3=1.33 times the natural radius of the earth.

There are times when the atmosphere doesn`t bend radio waves toward the earth and even bends them away from the earth. If you need to build a high reliability chain of microwave relay stations, you must provide enough path ground clearance so that you`ll have paths when the radio waves bend up as well as when the waves bend down. You pick the excess you can afford for the statistical reliability this excess has been shown to provide. I recall picking k=2/3 actual earth radius. This lead to purchase of this type of graph paper to plot the paths on showing land contours and possible obstructions.

Terman also om page 820, gives formula (22-7b) for:
Radio horizon in miles=aq rt (2h). where h is the height of the antenna in feet. You can approximate many of these in your head.

Best regards, Richard Harrison, KB5WZI

3268. The Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 06:22:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s9b6e1drmf2f30rmqn5fbf6pr302chkihf@4ax.com>
Source record: 72833

We begin with the model found at:
http://www.qsl.net/w5dxp/weblaser.GIF

Which has been variously described in text as:
1w | 1/4WL |
laser-----air-----|---thin-film---|---glass---...
1st medium | 2nd medium | 3rd medium
n=1.0 n=1.2222 n=1.4938
Pfor=1w Pfor=1.0101w Pfor=1w
Pref=0w Pref=0.0101w Pref=0w
which, of course, is in error

Employing what has been described as the cogent math:
Imin = I1 + I2 - 2*SQRT(I1*I2) = 0
or:
Ptot = P1 + P2 + 2*Sqrt(P1*P2)cos(theta)
or:
Ptot = P1 + P2 - 2*SQRT(P1*P2)

However, this math is far in advance of the necessary ground work to first establish I1|P1 and I2|P2 in the first place. It may be noted that they have been "assigned" values. Unfortunately the derivation of those values, lacking reference, are either pure whim and fantasy, or they were found by a formula, as of yet unreported. This will not pass.

The formula either discreetly hidden or completely unknown is a class of optics math called Fresnel's Equations. I will likewise limit their discussion. It requires the computation of the transmission coefficient, and the reflection coefficient both of which are then expressed in the energy equation. When you take the intensity times the area for both the reflected and refracted beams, the total energy flux must equal that in the incident beam. That equation appears as:
(rï¿½ + (tï¿½ ï¿½ n2ï¿½ ï¿½ cos(theta-t) / n1ï¿½ ï¿½ cos(theta-i))) = 1

It stands to reason that this can be quickly reduced without need to use transcendentals for an angle of incidence of 0ï¿½ (which results in a refractive angle of 0ï¿½). All that needs to be known are the coefficients which for that same angle simplify to
r = 0.0999918999... a value that is the limit of an asymptote;
it is also invested with either a + or - sign depending upon the polarization (another issue that was discarded in the original discussion as more unknown than immaterial)
t = 0.9000081000... a value that is the limit of an asymptote;
here, too, there are polarization issues we will discard as before. All this discarding comes only by virtue of squaring:

rï¿½ = 0.00999838....
tï¿½ = 0.81001458....
I presume that the remainder of the math can be agreed to exhibit:
that part of the energy reflected amounts to 0.999838%
or otherwise expressed as:
9.99838mW
and
that part of the energy transmitted amounts to 99.000162%
or otherwise expressed as:
990.00162mW

It follows that at the second boundary there is less power available due to the conservation of power observed at the first boundary. The optics are hardly remarkable at this second boundary as they exhibit nearly the same results, by percentages.

It then further follows that at the second boundary the amount of the original energy passing through the first medium (air) has been reduced to allow for a reflection returning to the first interface of only 9.89841mW. Needless to say, that same first interface is going to conserve energy by the total of refraction and reflection being equal to the energy incident upon it. I will skip that to allow ALL of this second reflection to "try" to totally cancel the first reflection:
9.99838mW - 9.89841mW
or
99.968ï¿½W

Now, admittedly, this appears all quite trivial and a strain on the precision to say the least. However the "initial conditions" have been stated to be an unrealistic example, or a perfect example, or a thought experiment, or... what have you. As a consequence this minute excess of energy stands in contrast to the expressed desire to prove "total" cancellation. I need not remind the reader that this could only get worse in the real world.

But how does this "perfect" result fare in the real world where this 1W laser has an un-cancelled reflection remainder? How does it fare in an application to reduce reflections that the eye is sensitive to? We can presume that to be either 510nM or 555nM, or somewhere in between.

A laser of this power will have a beam size on the order of 1mmï¿½. If you were to shine it against a white target that was exposed to the noon day sun, on the equator, at either equinox, we could compare it to the power of the sun's illumination. In this case, and being quite generous, I typically describe the available power from the sun as being 1000W/Mï¿½. This laser then would, in terms of W/Mï¿½, be quite powerful at 1,000,000W/Mï¿½. This is more than 1000 times more power than the sun's exposure to the same target.

However, the sun does not radiate one wavelength of energy. So, if we were to reduce the amount of sunlight confined to that in the Lased BW at its operating wavelength (noted above); then let's consider that the sun's power is in a BW of 2000nM and we are talking about (and I will be MOST generous to offer an absurdly wide) Lased BW of 20nM. It follows that the Lased power is thus 100,000 times brighter than the sun in the same BW for the same wavelength. But this still neglects that the sun's power is not evenly distributed throughout this 2000nM BW.

I am not going to pencil whip this further. Let's simply return to that un-cancelled power and look at it instead:
99.968ï¿½W
in that same 1mmï¿½, which if we cast to the same terms of comparison to sunlight it becomes 99.968W/Mï¿½ which is a tenth of the power of the sun's total BW emission. But we are talking about brightness, and we do not perceive the total BW of the sun's emission. As you may guess I am going to use the same BW correction to find that the un-cancelled reflection products are
TEN TIMES BRIGHTER THAN THE SUN!

Consider that this is being exceedingly generous (to subdue the brightness of the Laser and its reflections) in contrast to the actuality of even greater brilliance due to narrower BW and the actual power distribution of the sun's energy across its spectrum of emission.

Now, there is every chance I slipped a decimal point here or there in my rushing through the numbers. I will leave that to others to decide and exhibit my mistakes. If they are sufficiently in error, we can revisit the conversions and equivalencies in viewing this un-canceled reflection product. I bet it will still be quite brilliant and not the blackness so prophesied.

Vision is so taken for granted, that few who venture into the field of optics have the discipline to divorce their senses from the numbers at the right time, or the common sense to re-invest sight into what would be observed.

73's
Richard Clark, KB7QHC

3269. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 06:40:02 UTC
From: "Big Mac." <clansman@nospam.here.com>
Message-ID: <hqd6e1ptvi6dcfnet0mjuj4jceselbgeb7@4ax.com>
Source record: 72834
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 15:24:02 -0700, "John Smith"
<assemblywizard@gmail.com> drivelled:

>Yanno, that is what college is all about, you are forced to learn the
>rules--so you can effectively bend and break 'em for a buck...

If you get paid a buck for anything, you are grossly overpaid.

3270. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 06:40:02 UTC
From: "Big Mac." <clansman@nospam.here.com>
Message-ID: <erd6e1d09h8r0n3j90s3n0mole7k0v0juf@4ax.com>
Source record: 72835
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 12:38:23 -0700, "John Smith"
<assemblywizard@gmail.com> drivelled:

>If you want to say something to me, don't intermingle it together with
>all the text I just wrote, I remember what I wrote, just write a damn
>reply...

He probably just did that because the average American seems to have
the attention span of a goldfish.

Not that I have anything against Americans. In fact I support several
charities that look after dumb creatures.

3271. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 07:39:19 UTC
From: huLLy <g4sdw@aol.com>
Message-ID: <taCdneuM4IE32H7fRVn-vA@giganews.com>
Source record: 72836
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

John Smith wrote:
> Dude:
>
> I leave you here. If top posting is a real issue to you, I just hope
> you will survive life when a real problem comes your way...
>
> I'd suggest you killfile me, or get used to top posting...
>

Please don't top post.

3272. Re: Sort of an antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 11:15:00 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ZeudnV-VaY_f5X7fRVn-rw@crocker.com>
Source record: 72837

30-70 cents per foot. unless you catch me at a flea market and i happen to have had room for my roll of it and then you can get it for 10 cents per foot.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message news:1szEe.19053$Eo.1109@fed1read04...
> Anyone know who has the best price for 100' of
> 8 conductor rotor cable? Ham III rotor turning a
> Mosley TA-33M for a load.
>
> --
> Just my 2¢... 73 es gd dx de Ken KG¢WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>

3273. Re: The Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 13:08:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122210657_759@spool6-east.superfeed.net>
Source record: 72838

Richard Clark wrote:
> We begin with the model found at:
> http://www.qsl.net/w5dxp/weblaser.GIF
>
> Which has been variously described in text as:
> 1w | 1/4WL |
> laser-----air-----|---thin-film---|---glass---...
> 1st medium | 2nd medium | 3rd medium
> n=1.0 n=1.2222 n=1.4938
> Pfor=1w Pfor=1.0101w Pfor=1w
> Pref=0w Pref=0.0101w Pref=0w
> which, of course, is in error
>
> Employing what has been described as the cogent math:
> Imin = I1 + I2 - 2*SQRT(I1*I2) = 0
> or:
> Ptot = P1 + P2 + 2*Sqrt(P1*P2)cos(theta)
> or:
> Ptot = P1 + P2 - 2*SQRT(P1*P2)
>
> However, this math is far in advance of the necessary ground work to
> first establish I1|P1 and I2|P2 in the first place. It may be noted
> that they have been "assigned" values. Unfortunately the derivation
> of those values, lacking reference, are either pure whim and fantasy,
> or they were found by a formula, as of yet unreported. This will not
> pass.

The only assigned value is the one watt into the glass. All
other values are derived by formula. Those formulas are trivial
but I will report them here and now.

> The formula either discreetly hidden or completely unknown is a class
> of optics math called Fresnel's Equations. I will likewise limit
> their discussion. It requires the computation of the transmission
> coefficient, and the reflection coefficient both of which are then
> expressed in the energy equation. When you take the intensity times
> the area for both the reflected and refracted beams, the total energy
> flux must equal that in the incident beam. That equation appears as:
> (rï¿½ + (tï¿½ ï¿½ n2ï¿½ ï¿½ cos(theta-t) / n1ï¿½ ï¿½ cos(theta-i))) = 1
>
> It stands to reason that this can be quickly reduced without need to
> use transcendentals for an angle of incidence of 0ï¿½ (which results in
> a refractive angle of 0ï¿½). All that needs to be known are the
> coefficients which for that same angle simplify to

> r = 0.0999918999... a value that is the limit of an asymptote;

I rounded that value to 0.1 which is certainly within engineering
accuracy. The n1 value is actually 1.222222222222... but I thought
four decimal places would be enough. :-)

> it is also invested with either a + or - sign depending
> upon the polarization (another issue that was discarded
> in the original discussion as more unknown than immaterial)

> t = 0.9000081000... a value that is the limit of an asymptote;
> here, too, there are polarization issues we will discard as
> before. All this discarding comes only by virtue of squaring:
> rï¿½ = 0.00999838....
> tï¿½ = 0.81001458....

Since we are dealing with powers, there's no need for a transmission
coefficient. T, the transmittance can be calculated from the power
reflection coefficient, R, the reflectance. The reflectance is:

R = r^2 = (0.1)^2 = 0.01 i.e. 1% of the incident power is reflected.
T = (1-r^2) = 0.99 i.e. 99% of the incident power is transmitted.

I chose the index of refractions to obtain those two values which
are very easy to work with - almost no possibility of mistakes.
(I appologize for under-estimating your ability to make mistakes. :-)

> I presume that the remainder of the math can be agreed to exhibit:
> that part of the energy reflected amounts to 0.999838%
> or otherwise expressed as:
> 9.99838mW
> and
> that part of the energy transmitted amounts to 99.000162%
> or otherwise expressed as:
> 990.00162mW

Richard, you should know better than to use the amplitude reflection
and transmission coefficients on powers. You should be using the power
reflection coefficient, R, which is the reflectance and is the square
of the amplitude reflection coefficient. The power transmission
coefficient, T, is the transmittance and is one minus the reflectance.
Because of that math blunder, your results are incorrect. I am deleting
the rest of your posting for that reason. Please retry your calculations
using r = 0.1, R = 0.01, and T = 0.99

The amplitude reflection coefficient, r, applies to both E-fields
and H-fields, so you have to square it to get the power reflection
coefficient. rho, the transmission line reflection coefficient,
applies to voltage, not power. You have to square rho to obtain
the power reflection coefficient which is rho^2.

So rounding the amplitude reflection coefficient, r, to 0.1 and
squaring it to get the power reflection coefficient, R = 0.01,
we can see that 1% of the power is reflected at each boundary

in the example above. What incident forward power does it take
to get 1w into the glass?

1/.99 = 1.010101 ... watts

That's exactly the forward power in the thin-film in my example.
(There's that formula that you were demanding.)

And since the entire system is assumed to be loss-less, one watt
steady-state is required from the laser. So where does the extra
power come from in the forward power in the thin-film? The
extra 0.010101 ... watts in the thin film is the reflected power
that is 100% reflected due to wave cancellation between the
externally reflected wave and the internally reflected wave.

The external reflection is simply 1w*0.01 = 0.01w
where 0.01 is the power reflection coefficient, R.

The internal reflection is 0.010101w. To obtain the
amount of power transmitted through the first boundary,
multiply by 0.99, the power transmission coefficient.
Thus the interferring wave becomes 0.010101*0.99 = 0.01w

The magnitudes of the external reflection and the internal
transmission are the same. The thin-film being 1/4WL causes
those two reflected wave components to be 180 degrees out
of phase. The two reflected wave components are cancelled.
The energy components in those two waves join the forward
wave in the thin-film. Quoting the Melles-Groit web page.

"In the absence of absorption or scatter, the principle of conservation
of energy indicates all 'lost' reflected intensity will appear as
enhanced intensity in the transmitted beam. The sum of the reflected and
transmitted beam intensities is always equal to the incident intensity.
This important fact has been confirmed experimentally."
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3274. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 13:50:34 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <caOdnZ8J072NAn7fRVn-1A@comcast.com>
Source record: 72840
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I've used the internet since 1985 [DARPA net] and have yet to see the
11th commandment prohibiting top posting or forcing bottom posting.

I prefer TOP POSTING. I've read the original message previously, it is
stored sequentially on my computer sorted by thread and date if I need a
refresher, and I don't have to scroll through a lot of attached garbage
to get to your meaningful or meaningless comments.

TOP POSTING, IMO, provides much more efficient use of my time.

Get a life. There's much more to life than criticizing where a response
is posted.

NunYa Bidness wrote:

> On Sat, 23 Jul 2005 15:24:02 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>
>>NunYa:
>>
>>As senior software engineer, you bet I know about conformance!!!
>
>
> Apparently not, you top posting twit.
>
>>I set the rules... well, unless someone can propose a good argument
>>why they should be broken.
>
>
> You are breaking the rules. You certainly don't get to declare them
> in a forum that has been around long before you began posting to it.
>
>>Yanno, that is what college is all about, you are forced to learn the
>>rules--so you can effectively bend and break 'em for a buck...
>
>
> Aahhhh... The age old "I do whatever the hell I want." argument.
> Nobody is getting paid here, dingledorf. It is a matter of common
> courtesy.

3275. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 13:51:20 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <caOdnZ4J072jAn7fRVn-1A@comcast.com>
Source record: 72841
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Why not?? It's much more efficient use of my time.

huLLy wrote:

> John Smith wrote:
>
>>Dude:
>>
>>I leave you here. If top posting is a real issue to you, I just hope
>>you will survive life when a real problem comes your way...
>>
>>I'd suggest you killfile me, or get used to top posting...
>>
>
>
> Please don't top post.
>
>

3276. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 14:06:54 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42e3a212$1_2@x-privat.org>
Source record: 72842
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Indeed, the "governing" RFC even went so far as to
state that bottom posting was the preferred method
of the author but that there was no hard and fast rule
about it.

With top posting, you can quickly "thumb" through the
posts with your hand on the "Next" button. With bottom
posting you have to page down through much already-seen
and over-quoted material. The net result is that bottom-posted
articles tend to get skipped without the new material being read
let alone being visible.

"Ham op" <hamop@comcast.net> wrote in message
news:caOdnZ8J072NAn7fRVn-1A@comcast.com...
> I've used the internet since 1985 [DARPA net] and have yet to see the 11th
> commandment prohibiting top posting or forcing bottom posting.
>
> I prefer TOP POSTING. I've read the original message previously, it is
> stored sequentially on my computer sorted by thread and date if I need a
> refresher, and I don't have to scroll through a lot of attached garbage to
> get to your meaningful or meaningless comments.
>
> TOP POSTING, IMO, provides much more efficient use of my time.
>
> Get a life. There's much more to life than criticizing where a response is
> posted.

3277. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 14:37:10 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <7r97e194p9f06bl0be79bmdl6rhtjh9r5e@4ax.com>
Source record: 72843
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> wrote:

>I've used the internet since 1985 [DARPA net] and have yet to see the
>11th commandment prohibiting top posting or forcing bottom posting.
>
>I prefer TOP POSTING. I've read the original message previously, it is
>stored sequentially on my computer sorted by thread and date if I need a
>refresher, and I don't have to scroll through a lot of attached garbage
>to get to your meaningful or meaningless comments.
>
>TOP POSTING, IMO, provides much more efficient use of my time.

What's so bloody important about your time?

Don't top-post.

73 de Jock.
--

The English are not very spiritual people, so they
invented cricket to give them some idea of eternity.
- George Bernard Shaw

3278. UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 14:58:05 UTC
From: philnyc <philnyc22@hotmail.com>
Message-ID: <1122217085.138252.116200@f14g2000cwb.googlegroups.com>
Source record: 72844

Hello everyone,

I would greatly appreciate any advice in subject of choosing a vertical antenna for satellite operations. I can hear VO-52 / FO-29 5-7 / 5-9 using my mobile antenna NR 770 H fix on a mast 9ft above the ground.

I am cosidering builing a Super J-Pole antenna.
http://www.n7qvc.com/amateur_radio/copper.html

Do you think that this vertical will be sufficient to bounce 50W of signal back to Earth of the satellite ? If not , what other homebrew antenna will be fine for this purpose ?

Thank you for your helpful response .

Phil

3279. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 15:48:00 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zsGdnVuJIaEnJ37fRVn-rw@comcast.com>
Source record: 72845
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

See, I had to SNIP to get to the important portion of your message.

'My Time' is all I've got. Once it's gone, it's gone! I don't get any more.

Jock, I hope you use your time wisely. Don't waste it reading 'replies
to replies of replies'. Get to the issue quickly. TOP POST.
Jock. wrote:

SNIPPED
>
> What's so bloody important about your time?
>
> Don't top-post.
>
> 73 de Jock.

3280. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 16:34:30 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <qqPEe.4622$6M3.2227@trnddc03>
Source record: 72846

"philnyc" <philnyc22@hotmail.com> wrote in message
news:1122217085.138252.116200@f14g2000cwb.googlegroups.com...
> Hello everyone,
>
> I would greatly appreciate any advice in subject of choosing a vertical
> antenna for satellite operations. I can hear VO-52 / FO-29 5-7 / 5-9
> using my mobile antenna NR 770 H fix on a mast 9ft above the ground.
>
> I am cosidering builing a Super J-Pole antenna.
> http://www.n7qvc.com/amateur_radio/copper.html
>
> Do you think that this vertical will be sufficient to bounce 50W of
> signal back to Earth of the satellite ? If not , what other homebrew
> antenna will be fine for this purpose ?
>
> Thank you for your helpful response .
>
> Phil

Phil

I've been trying to figure out how to build an antenna for receiving polar orbiting weather satellite signals. The satellites send down RHCP on 137 MHz.
A turnstile antenna works pretty well for satellite monitoring, and is pretty easy to build.
There are helical configurations that are commonly considered to be the ultimate weather satellite receiving antenna, but can be tricky to make work properly..
I submit that I know a way to build an antenna with 4 dipoles that perform as well as (or better than) a helix for satellite reception. I refer to the hemispherical patterned antenna concept as the "Cross". It is simple and wouldnt qualify as an invention, its a concept, and it works. It is alot easier for me to build one than it is to describe it. But, the cross antenna is two pairs of crossed dipoles. Each pair is two crossed dipoles spaced apart and fed in phase. One pair is fed 90 degrees later than the other.

I'd be "only too pleased" to E-mail notes and performance data on the concept if you have interest.
I can produce good images from NOAA 17 whenever it is above 1 degree (2 degrees would be a safer number) above the horizon, viewing it from horizon to horizon with that stationary, 4 dipole array.

Jerry

3281. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:21:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122225815_139@spool6-east.superfeed.net>
Source record: 72847
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Ham op wrote:
> I've used the internet since 1985 [DARPA net] and have yet to see the
> 11th commandment prohibiting top posting or forcing bottom posting.

Have you read the usenet posting guidelines?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3282. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:32:41 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <78225$42e3d0ba$471c636a$611@ALLTEL.NET>
Source record: 72848

You would be better served with a "Potato Masher" for your purpose. You may
view the info at http://members.aol.com/k5oe/

"philnyc" <philnyc22@hotmail.com> wrote in message
news:1122217085.138252.116200@f14g2000cwb.googlegroups.com...
> Hello everyone,
>
> I would greatly appreciate any advice in subject of choosing a vertical
> antenna for satellite operations. I can hear VO-52 / FO-29 5-7 / 5-9
> using my mobile antenna NR 770 H fix on a mast 9ft above the ground.
>
> I am cosidering builing a Super J-Pole antenna.
> http://www.n7qvc.com/amateur_radio/copper.html
>
> Do you think that this vertical will be sufficient to bounce 50W of
> signal back to Earth of the satellite ? If not , what other homebrew
> antenna will be fine for this purpose ?
>
> Thank you for your helpful response .
>
> Phil
>

3283. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:35:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <VjQEe.42$7M5.1066096@news.sisna.com>
Source record: 72850
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

... get a gui news reader...

John

"huLLy" <g4sdw@aol.com> wrote in message
news:taCdneuM4IE32H7fRVn-vA@giganews.com...
> John Smith wrote:
>> Dude:
>>
>> I leave you here. If top posting is a real issue to you, I just
>> hope
>> you will survive life when a real problem comes your way...
>>
>> I'd suggest you killfile me, or get used to top posting...
>>
>
> Please don't top post.
>

3284. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:38:07 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8mQEe.44$BG5.1027190@news.sisna.com>
Source record: 72849
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Ham Op:

I think some must still be attempting to use old linux/unix/dos news readers from the commandline--only way they could have a problem other than attempting to use one of the first GUI news readers ever programmed...

Let'em get a decent news reader...

John

"Ham op" <hamop@comcast.net> wrote in message news:caOdnZ8J072NAn7fRVn-1A@comcast.com...
> I've used the internet since 1985 [DARPA net] and have yet to see
> the 11th commandment prohibiting top posting or forcing bottom
> posting.
>
> I prefer TOP POSTING. I've read the original message previously, it
> is stored sequentially on my computer sorted by thread and date if I
> need a refresher, and I don't have to scroll through a lot of
> attached garbage to get to your meaningful or meaningless comments.
>
> TOP POSTING, IMO, provides much more efficient use of my time.
>
> Get a life. There's much more to life than criticizing where a
> response is posted.
>
>
>
> NunYa Bidness wrote:
>
>> On Sat, 23 Jul 2005 15:24:02 -0700, "John Smith"
>> <assemblywizard@gmail.com> Gave us:
>>
>>
>>>>NunYa:
>>>
>>>As senior software engineer, you bet I know about conformance!!!
>>
>>
>> Apparently not, you top posting twit.
>>
>>>>I set the rules... well, unless someone can propose a good argument
>>>why they should be broken.

>>
>>
>> You are breaking the rules. You certainly don't get to declare
>> them
>> in a forum that has been around long before you began posting to
>> it.
>>
>>>Yanno, that is what college is all about, you are forced to learn
>>>the rules--so you can effectively bend and break 'em for a buck...
>>
>>
>> Aahhhh... The age old "I do whatever the hell I want." argument.
>> Nobody is getting paid here, dingledorf. It is a matter of common
>> courtesy.
>

3285. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:41:09 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <%oQEe.45$iJ4.693284@news.sisna.com>
Source record: 72851
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Polymath:

Yep, unless you have all day to start paging though past commented
texts of posts--top posting is where it is at!!!

Some people have been sold the line that there is something leet about
bottom posting--obviously they haven't a clue... but even think they
fool others!

Only reason you should have a problem these days, is if you are still
using telnet to read your news and email!

John

"Polymath" <invalid@invalid.invalid> wrote in message
news:42e3a212$1_2@x-privat.org...
> Indeed, the "governing" RFC even went so far as to
> state that bottom posting was the preferred method
> of the author but that there was no hard and fast rule
> about it.
>
> With top posting, you can quickly "thumb" through the
> posts with your hand on the "Next" button. With bottom
> posting you have to page down through much already-seen
> and over-quoted material. The net result is that bottom-posted
> articles tend to get skipped without the new material being read
> let alone being visible.
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:caOdnZ8J072NAn7fRVn-1A@comcast.com...
>> I've used the internet since 1985 [DARPA net] and have yet to see
>> the 11th commandment prohibiting top posting or forcing bottom
>> posting.
>>
>> I prefer TOP POSTING. I've read the original message previously,
>> it is stored sequentially on my computer sorted by thread and date
>> if I need a refresher, and I don't have to scroll through a lot of
>> attached garbage to get to your meaningful or meaningless comments.
>>
>> TOP POSTING, IMO, provides much more efficient use of my time.
>>
>> Get a life. There's much more to life than criticizing where a
>> response is posted.
>
>

3286. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:42:10 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XpQEe.46$BR5.1085594@news.sisna.com>
Source record: 72852
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Jock:

Could you stop bottom posting, there are already too many here with
that bad habit!
<grin>

John

"Jock." <real_class_a2003@yahoo.fr> wrote in message
news:7r97e194p9f06bl0be79bmdl6rhtjh9r5e@4ax.com...
> On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net>
> wrote:
>
>>I've used the internet since 1985 [DARPA net] and have yet to see
>>the
>>11th commandment prohibiting top posting or forcing bottom posting.
>>
>>I prefer TOP POSTING. I've read the original message previously, it
>>is
>>stored sequentially on my computer sorted by thread and date if I
>>need a
>>refresher, and I don't have to scroll through a lot of attached
>>garbage
>>to get to your meaningful or meaningless comments.
>>
>>TOP POSTING, IMO, provides much more efficient use of my time.
>
> What's so bloody important about your time?
>
> Don't top-post.
>
> 73 de Jock.
> --
>
> The English are not very spiritual people, so they
> invented cricket to give them some idea of eternity.
> - George Bernard Shaw

3287. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:44:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HrQEe.47$JB5.1004702@news.sisna.com>
Source record: 72853
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil:

What? The hams are now attempting to set rules for usenet posting?

Have they began to claim they invented newsgroups too? Just after
they invented the internet and letting Al Gore help 'em?
<grin>

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1122225815_139@spool6-east.superfeed.net...
> Ham op wrote:
>> I've used the internet since 1985 [DARPA net] and have yet to see
>> the 11th commandment prohibiting top posting or forcing bottom
>> posting.
>
> Have you read the usenet posting guidelines?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via
> Encryption =----

3288. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:46:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <puQEe.48$yD5.1013801@news.sisna.com>
Source record: 72854
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.antenna

Big Mac:

Hmmm, that statement could only come from a person who, if anyone let
them work for them (be an employee), they are grossly negligent!

No wonder you can't decent service at Mc Donalds!!! They got Big Mac
serving now!!!

<innocent-look>

John

"Big Mac." <clansman@nospam.here.com> wrote in message
news:hqd6e1ptvi6dcfnet0mjuj4jceselbgeb7@4ax.com...
> On Sat, 23 Jul 2005 15:24:02 -0700, "John Smith"
> <assemblywizard@gmail.com> drivelled:
>
>>Yanno, that is what college is all about, you are forced to learn
>>the
>>rules--so you can effectively bend and break 'em for a buck...
>
> If you get paid a buck for anything, you are grossly overpaid.
>

3289. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 17:49:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XwQEe.49$4U5.1102973@news.sisna.com>
Source record: 72855
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.antenna

Big Mac:

Well, that text of mine is pretty direct and may seem a bit
un-feeling...

Really, if someone is so mentally handicapped, or suffers Alzheimer's
where they need the text they are responding to right there so they
can read it every few seconds...

I can make allowances for the ones with "special needs"...

John

"Big Mac." <clansman@nospam.here.com> wrote in message
news:erd6e1d09h8r0n3j90s3n0mole7k0v0juf@4ax.com...
> On Sat, 23 Jul 2005 12:38:23 -0700, "John Smith"
> <assemblywizard@gmail.com> drivelled:
>
>>If you want to say something to me, don't intermingle it together
>>with
>>all the text I just wrote, I remember what I wrote, just write a
>>damn
>>reply...
>
> He probably just did that because the average American seems to have
> the attention span of a goldfish.
>
> Not that I have anything against Americans. In fact I support
> several
> charities that look after dumb creatures.

3290. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:13:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc0lof$l52$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72856
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

```
> The English are not very spiritual people, so they
> invented cricket to give them some idea of eternity.
> - George Bernard Shaw

Did George top post or bottom post?
```

3291. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:31:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <g8REe.53$y36.1179723@news.sisna.com>
Source record: 72869
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg:

Your posts are too few.

But, when you post the posts are relevant in the most interesting of ways.

That was a ZINGER!!!!

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dc0lof$l52$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>> The English are not very spiritual people, so they
>> invented cricket to give them some idea of eternity.
>> - George Bernard Shaw
>
> Did George top post or bottom post?
>
>

3292. Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:32:37 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <wtednatQf9NbQ37fRVn-iQ@speakeasy.net>
Source record: 72857

I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600 ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power output will be 1000W CW and 1200W PEP.
(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner with a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL balanced tuner?
(2) Also, if I later decide to erect an inverted L for 160/80, can I use a balanced tuner with a DX Engineering 1:1 balun put on antenna side of tuner, but reversed in direction (converting unbalanced to balanced), or need I get a different tuner?
(3) In a perfect world, I'd buy both tuners (one for balanced and one for unbalanced), but I can't afford it. Also, if I go with the unbalanced tuner, will the balun waste a ton of RF in heat and loss?
(4) I made a similar post on the Ten Tec List, and received lots of advice on point designs, but not the COMPARISON data I was looking for that will help me make the final decision to go with a balanced tuner vs an unbalanced (with balun) tuner.
(5) I have plenty of room, would it make any difference if I put a 160 meter dipole instead?
Thanks & 73,
Greg, N6GK

3293. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:39:00 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <5fa80$42e3e04b$471c636a$26466@ALLTEL.NET>
Source record: 72858

I use similar antennas, the ladder line is tied directly to coax with
ferrite beads over the coax to act as a choke balun.

When I used a tuner, I simply used the unbalanced input.

If your intention is to take the ladder line all the way to the tuner, go
with a balanced tuner.

"greg knapp 5" <gknapp@freshrain.org> wrote in message
news:wtednatQf9NbQ37fRVn-iQ@speakeasy.net...
> I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
> ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
> output will be 1000W CW and 1200W PEP.
> (1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
with
> a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL
> balanced tuner?
> (2) Also, if I later decide to erect an inverted L for 160/80, can I use a
> balanced tuner with a DX Engineering 1:1 balun put on antenna side of
tuner,
> but reversed in direction (converting unbalanced to balanced), or need I
get
> a different tuner?
> (3) In a perfect world, I'd buy both tuners (one for balanced and one for
> unbalanced), but I can't afford it. Also, if I go with the unbalanced
tuner,
> will the balun waste a ton of RF in heat and loss?
> (4) I made a similar post on the Ten Tec List, and received lots of advice
> on point designs, but not the COMPARISON data I was looking for that will
> help me make the final decision to go with a balanced tuner vs an
unbalanced
> (with balun) tuner.
> (5) I have plenty of room, would it make any difference if I put a 160
meter
> dipole instead?
> Thanks & 73,
> Greg, N6GK
>
>

3294. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:48:43 UTC
From: Dave <noone@nowhere.com>
Message-ID: <gr2dnWCrDJoEf37fRVn-uA@crocker.com>
Source record: 72860

how does the balanced tuner get from the unbalanced output of the amplifier
and the balanced feedline? is there not a balun in there somewhere anyway?

"greg knapp 5" <gknapp@freshrain.org> wrote in message
news:wtednatQf9NbQ37fRVn-iQ@speakeasy.net...
>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>output will be 1000W CW and 1200W PEP.
> (1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
> with a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar
> BT1500BAL balanced tuner?
> (2) Also, if I later decide to erect an inverted L for 160/80, can I use a
> balanced tuner with a DX Engineering 1:1 balun put on antenna side of
> tuner, but reversed in direction (converting unbalanced to balanced), or
> need I get a different tuner?
> (3) In a perfect world, I'd buy both tuners (one for balanced and one for
> unbalanced), but I can't afford it. Also, if I go with the unbalanced
> tuner, will the balun waste a ton of RF in heat and loss?
> (4) I made a similar post on the Ten Tec List, and received lots of advice
> on point designs, but not the COMPARISON data I was looking for that will
> help me make the final decision to go with a balanced tuner vs an
> unbalanced (with balun) tuner.
> (5) I have plenty of room, would it make any difference if I put a 160
> meter dipole instead?
> Thanks & 73,
> Greg, N6GK
>

3295. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:50:13 UTC
From: philnyc <philnyc22@hotmail.com>
Message-ID: <1122231013.505145.305060@o13g2000cwo.googlegroups.com>
Source record: 72862

Jerry, thank you for your replay, kindly please forward the instructions on how to build a turnstile antenna for 145 and 435 . Are the arms 1/2 wave or 1/4 ?

Thanx again.
Phil

3296. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:50:38 UTC
From: philnyc <philnyc22@hotmail.com>
Message-ID: <1122231038.074097.63040@g44g2000cwa.googlegroups.com>
Source record: 72861

Jerry, thank you for your replay, kindly please forward the
instructions on how to build a turnstile antenna for 145 and 435 . Are
the arms 1/2 wave or 1/4 ?

philnyc22_noSpam@hotmail.com

Thanx again.
Phil

3297. Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 18:53:08 UTC
From: Bob <someone@nospam.com>
Message-ID: <Ro6dnSmX4e8nfX7fRVn-1A@comcast.com>
Source record: 72859

I've got plenty of trees to hang up a dipole for 40 meters and feed it with ladder line. Power level =< 100 Watts.
What's the opinion(s) on the wires contacting leaves, especially near the end points? Better to use plastic insulated wire rather than enameled wire?

3298. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 19:10:03 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <kNGdnfMEK9jTd37fRVn-qA@comcast.com>
Source record: 72863
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil ... GUIDELINES are not cast in concrete!!

Cecil Moore wrote:

> Ham op wrote:
>
>> I've used the internet since 1985 [DARPA net] and have yet to see the
>> 11th commandment prohibiting top posting or forcing bottom posting.
>
>
> Have you read the usenet posting guidelines?

3299. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 19:18:55 UTC
From: richardharrison@webtv.net
Message-ID: <26495-42E3E99F-415@storefull-3252.bay.webtv.net>
Source record: 72865

Phil wrote:
"If not, what other homebrew antenna will be fine for this purpose?"

A turnstile with reflector?

High gain comes from narrow beamwidth. A lower gain antenna is easier to use as it is a larger window on the sky.

Unless the vertical antenna is an axial helix or something similar, it likely has a null in the direction of its open-circuited end. There are better choices.

There are many antenna options. Most are covered in the ARRL Antenna Book. It has a complete chapter on "Antennas hor Space Communications" In my 19th edition, this is Chapter 19. Construction details are given too.

Best regards, Richard Harrison, KB5WZI

3300. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 19:22:53 UTC
From: dplatt@radagast.org
Message-ID: <11e7qkd9t8i9g48@corp.supernews.com>
Source record: 72864

In article <gr2dnWCrDJoEf37fRVn-uA@crocker.com>,
Dave <noone@nowhere.com> wrote:

>how does the balanced tuner get from the unbalanced output of the amplifier
>and the balanced feedline? is there not a balun in there somewhere anyway?

I've seen three approaches used:

- Asymmetrical (unbalanced) tuner of the T or L or pi configuration,
with a balun at the output. This seems to be the most common
configuration, but is often said to suffer from a degraded balance
or unacceptable losses in the balun when feeding high-Z loads.
It's not easy for a balun to provide adequate choking reactance
when feeding such loads.

- Tuners which use a symmetrical T or L configuration, with the input
to the matching network being fed from the rig/amplifier's 50-ohm
output via a balun. An internal W2DU-type "ferrite beads on coax"
balun seems to be popular in such designs.

- Link-coupled tuners, such as the Johnson Matchbox and the newer
Z-match designs. The input side of the circuit operates unbalanced
and is usually asymmetrical, while the output side (the link) is
balanced with respect to ground. The input and output sides are
coupled inductively. There's sometimes a small amount of imbalance
created by capacitive coupling across the link, but this seems to
be small enough to have little practical effect on the quality of
the balance. In this case, the balanced-to-unbalanced function is
performed by the inductive link, and there's no separate "balun"
component.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3301. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 19:26:03 UTC
From: philnyc <philnyc22@hotmail.com>
Message-ID: <1122233163.109009.140660@g43g2000cwa.googlegroups.com>
Source record: 72866

I'm trying to show my email , it should be shown this way:

philnyc22 at hotmail.com

3302. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 19:36:23 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <2vadnauzMrXibX7fRVn-og@comcast.com>
Source record: 72867

No balun required in a properly designed unbalanced tuner. See the
Johnson Matchbox series.

Dave wrote:

> how does the balanced tuner get from the unbalanced output of the amplifier
> and the balanced feedline? is there not a balun in there somewhere anyway?
>
> "greg knapp 5" <gknapp@freshrain.org> wrote in message
> news:wtednatQf9NbQ37fRVn-iQ@speakeasy.net...
>
>>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>>output will be 1000W CW and 1200W PEP.
>>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
>>with a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar
>>BT1500BAL balanced tuner?
>>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
>>tuner, but reversed in direction (converting unbalanced to balanced), or
>>need I get a different tuner?
>>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>>unbalanced), but I can't afford it. Also, if I go with the unbalanced
>>tuner, will the balun waste a ton of RF in heat and loss?
>>(4) I made a similar post on the Ten Tec List, and received lots of advice
>>on point designs, but not the COMPARISON data I was looking for that will
>>help me make the final decision to go with a balanced tuner vs an
>>unbalanced (with balun) tuner.
>>(5) I have plenty of room, would it make any difference if I put a 160
>>meter dipole instead?
>>Thanks & 73,
>>Greg, N6GK
>>
>
>
>

3303. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 19:48:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9ur7e1lecat8hvmune3fd5hrcsjq6umus3@4ax.com>
Source record: 72868

On 24 Jul 2005 12:26:03 -0700, "philnyc" <philnyc22@hotmail.com>
wrote:

>From: "philnyc" <philnyc22@hotmail.com>
>Newsgroups: rec.radio.amateur.antenna
>Subject: Re: UHF antenna for Sat ops
>Date: 24 Jul 2005 12:26:03 -0700

...

>
>I'm trying to show my email , it should be shown this way:
>
>philnyc22 at hotmail.com

Hi OM,

You are trying to be too coy about your address. I suspect you think
it will cut down on spam. Truth of the matter is your address is
quite obvious in the headers (shown above your post and in the
salutory line introducing this response) where the spambots look -
they could care less how you munge it up in the body.

By the way, Jerry has spent a lot of effort in working on his design.
Consider it closely.

73's
Richard Clark, KB7QHC

3304. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 20:28:51 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11e7ug512huare6@corp.supernews.com>
Source record: 72870

Better to hang the wire in the clear.

Otherwise, test lead wire is ususlly good to 15 KV.

73
H.

"Bob" <someone@nospam.com> wrote in message
news:Ro6dnSmX4e8nfX7fRVn-1A@comcast.com...
> I've got plenty of trees to hang up a dipole for 40 meters and feed it
> with
> ladder line. Power level =< 100 Watts.
> What's the opinion(s) on the wires contacting leaves, especially near the
> end points? Better to use plastic insulated wire rather than enameled
> wire?
>
>

3305. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 20:40:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122237763_79@spool6-east.superfeed.net>
Source record: 72872
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

John Smith wrote:
> What? The hams are now attempting to set rules for usenet posting?

There are indeed guidelines for usenet postings to the
rec.radio.amateur.* newsgroups. I had that URL on my
computer that crashed. A web search will probably
reveal them.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3306. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 20:40:51 UTC
From: Bob <someone@nospam.com>
Message-ID: <LPWdnUfedJpmZH7fRVn-1A@comcast.com>
Source record: 72871

Google search for "balanced-balanced " or "Richard Measures" (author of
article).
I built one, it worked great.

3307. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 20:43:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122237967_81@spool6-east.superfeed.net>
Source record: 72873
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Ham op wrote:
> Cecil ... GUIDELINES are not cast in concrete!!

Is that a yes or a no answer?

> Cecil Moore wrote:
>> Have you read the usenet posting guidelines?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3308. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 20:58:50 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <u508e19tq37co8247ckdcv0kiqd99f4sjj@4ax.com>
Source record: 72874

On Sun, 24 Jul 2005 14:53:08 -0400, "Bob" <someone@nospam.com> wrote:

>I've got plenty of trees to hang up a dipole for 40 meters and feed it with
>ladder line. Power level =< 100 Watts.
>What's the opinion(s) on the wires contacting leaves, especially near the
>end points? Better to use plastic insulated wire rather than enameled wire?
>

I use insulated wire. And a long-pole tree trimmer to keep the wires
in the clear. Not that hard to clear a path.

bob
k5qwg

3309. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 21:18:38 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <d118e1p56kt40pjct2touln10nmh3f5c07@4ax.com>
Source record: 72775

On Sun, 24 Jul 2005 11:32:37 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>output will be 1000W CW and 1200W PEP.
>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner with
>a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL
>balanced tuner?
>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>balanced tuner with a DX Engineering 1:1 balun put on antenna side of tuner,
>but reversed in direction (converting unbalanced to balanced), or need I get
>a different tuner?
>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>unbalanced), but I can't afford it. Also, if I go with the unbalanced tuner,
>will the balun waste a ton of RF in heat and loss?
>(4) I made a similar post on the Ten Tec List, and received lots of advice
>on point designs, but not the COMPARISON data I was looking for that will
>help me make the final decision to go with a balanced tuner vs an unbalanced
>(with balun) tuner.
>(5) I have plenty of room, would it make any difference if I put a 160 meter
>dipole instead?
>Thanks & 73,
>Greg, N6GK
>

Have not seen any published tests comparing balanced vs. unbalanced
tuners, so any comparisons will probably be theoretical in nature.
Also, instread of the dx engineering balun, you might look at a
w2du-style balun -- see his article at
http://www.w2du.com/Reflection2.html

bob
k5qwg

3310. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 21:21:08 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <8DTEe.2674$sc3.1801@trnddc07>
Source record: 72776

"philnyc" <philnyc22@hotmail.com> wrote in message
news:1122231013.505145.305060@o13g2000cwo.googlegroups.com...
> Jerry, thank you for your replay, kindly please forward the
> instructions on how to build a turnstile antenna for 145 and 435 . Are
> the arms 1/2 wave or 1/4 ?
>
> Thanx again.
> Phil
>
Phil

I havent persued this Cross concept with the intention of identifying "just one way" of building an antenna. I dont mean to imply that my choice was a good one. Maybe I should be more specific. I just havent yet learned enough about how this "hemispherical pattern shaped" works. So far, I've seen that 4 lambda over 2 dipoles can be nested into a slanted vertical array to provide highly elyptical polarization thruout the hemisphere. It is two pairs of crossed dipoles, each pair fed in phase and one pair fed 90 degrees later than the other.
I think the turnstile (with reflectors) has been described in many wer sites. I could send you an accurate sketch of one, but you can surely get better instructions from the Internet. Turnstiles are decent antennas for hemispherical CP coverage and pretty easy to understand and build.
If you are definitely going to build an antenna from which you would appreciate hemispherical elyptically polarized coverage, E-mail me. i can/will help you understand either/both the turnstile and the Cross. I wish I could help you understand the QHA or QFH helix antennas, they work very well. But, I just dont have them figured out.

Jerry

3311. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 21:27:31 UTC
From: Dave <noone@nowhere.com>
Message-ID: <t7WdnZmXBIhZmnnfRVn-sA@crocker.com>
Source record: 72777

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11e7qkd9t8i9g48@corp.supernews.com...
> In article <gr2dnWCrDJoEf37fRVn-uA@crocker.com>,
> Dave <noone@nowhere.com> wrote:
>
>>how does the balanced tuner get from the unbalanced output of the
>>amplifier
>>and the balanced feedline? is there not a balun in there somewhere
>>anyway?
>
> I've seen three approaches used:
>
> - Asymmetrical (unbalanced) tuner of the T or L or pi configuration,
> with a balun at the output. This seems to be the most common
> configuration, but is often said to suffer from a degraded balance
> or unacceptable losses in the balun when feeding high-Z loads.
> It's not easy for a balun to provide adequate choking reactance
> when feeding such loads.
>
> - Tuners which use a symmetrical T or L configuration, with the input
> to the matching network being fed from the rig/amplifier's 50-ohm
> output via a balun. An internal W2DU-type "ferrite beads on coax"
> balun seems to be popular in such designs.
>
> - Link-coupled tuners, such as the Johnson Matchbox and the newer
> Z-match designs. The input side of the circuit operates unbalanced
> and is usually asymmetrical, while the output side (the link) is
> balanced with respect to ground. The input and output sides are
> coupled inductively. There's sometimes a small amount of imbalance
> created by capacitive coupling across the link, but this seems to
> be small enough to have little practical effect on the quality of
> the balance. In this case, the balanced-to-unbalanced function is
> performed by the inductive link, and there's no separate "balun"
> component.
>
so, no matter how you spell it, unbalanced in, balanced out, somehow the
tuner either has a component called specifically a balun, or combines it
into other parts that also transform impedance... essentially making the
whole tuner one big balun. no matter how its done somewhere between the
amplifier unbalanced output and the balanced wire there is something doing
the balun function.

3312. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:05:18 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <zgUEe.118$TA.1903734@news.sisna.com>
Source record: 72778
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil:

Wow. Those little "ham rule makers" just move in and start attempting to "regulate" everything.

Damn, I am sure there is a name for that particular mental disorder, not having the correct medical term at my disposal--I resort to just referring to them as "control freaks."

You know, a good regulated power supply is a good thing--a world composed of silly regulations is cumbersome!

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1122237763_79@spool6-east.superfeed.net...
> John Smith wrote:
>> What? The hams are now attempting to set rules for usenet posting?
>
> There are indeed guidelines for usenet postings to the
> rec.radio.amateur.* newsgroups. I had that URL on my
> computer that crashed. A web search will probably
> reveal them.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3313. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:18:40 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <s408e1t681aee8ugcd5bkn1dv79a5hlpt9@4ax.com>
Source record: 72779
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> Gave
us:

>I've used the internet since 1985 [DARPA net] and have yet to see the
>11th commandment prohibiting top posting or forcing bottom posting.
>
>I prefer TOP POSTING. I've read the original message previously

It isn't about what you have read, or what you have stored. Get a
clue.

>, it is
>stored sequentially on my computer sorted by thread and date if I need a
>refresher, and I don't have to scroll through a lot of attached garbage
>to get to your meaningful or meaningless comments.

What you fail to realize is that what you have stored, and the
manner which you read Usenet is not how everyone does it. The
protocols (which do exist) are in place to increase understanding of
the post from that very post, without the need to look up or download
additional posts. Are you getting it yet?

>
>TOP POSTING, IMO, provides much more efficient use of my time.

You are what Usenet users that actually know what the forum is about
call LAZY. How hard can it be, and a few seconds is not some critical
number. Are you really that pathetic?

>
>Get a life. There's much more to life than criticizing where a response
>is posted.

Funny that the only places idiots like you conform is when there is
no way to get what you want otherwise, or if a cop has a gun pointed
at you. You are the same type of idiot I see here in California that
doesn't stop for stopped traffic. They traverse either to the right
or left like little inertial idiots, or the idiots that wear their
pants down past their ass.

3314. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:20:08 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <s058e1pu1ucsii7svkt0nadc715kq23fv4@4ax.com>
Source record: 72781
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 09:51:20 -0400, Ham op <hamop@comcast.net> Gave
us:

>Why not?? It's much more efficient use of my time.
>

How was it any easier to post that one line tripe at the top than
where it belongs? How easy, oh yeah... a couple of clicks. You are
one lazy bastard.

3315. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:21:35 UTC
From: jgboyles@aol.com
Message-ID: <1122243695.817591.291580@g14g2000cwa.googlegroups.com>
Source record: 72780

Ham op wrote:
> No balun required in a properly designed unbalanced tuner. See the
> Johnson Matchbox series.
>
> Dave wrote:
>
> > how does the balanced tuner get from the unbalanced output of the amplifier
> > and the balanced feedline? is there not a balun in there somewhere anyway?
> >
> > "greg knapp 5" <gknapp@freshrain.org> wrote in message
> > news:wtednatQf9NbQ37fRVn-iQ@speakeasy.net...
> >
> >>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
> >>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
> >>output will be 1000W CW and 1200W PEP.
> >>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
> >>with a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar
> >>BT1500BAL balanced tuner?
> >>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
> >>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
> >>tuner, but reversed in direction (converting unbalanced to balanced), or
> >>need I get a different tuner?
> >>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
> >>unbalanced), but I can't afford it. Also, if I go with the unbalanced
> >>tuner, will the balun waste a ton of RF in heat and loss?
> >>(4) I made a similar post on the Ten Tec List, and received lots of advice
> >>on point designs, but not the COMPARISON data I was looking for that will
> >>help me make the final decision to go with a balanced tuner vs an
> >>unbalanced (with balun) tuner.
> >>(5) I have plenty of room, would it make any difference if I put a 160
> >>meter dipole instead?
> >>Thanks & 73,
> >>Greg, N6GK
Hi Ham Op, did you mean no balun required in a properly designed
"balanced tuner"? Are not the Johnson Series balanced tuners?
Gary N4AST

3316. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:22:25 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1122243744.992739.202480@g47g2000cwa.googlegroups.com>
Source record: 72782

Bob wrote:
> I've got plenty of trees to hang up a dipole for 40 meters and feed it with
> ladder line. Power level =< 100 Watts.
> What's the opinion(s) on the wires contacting leaves, especially near the
> end points? Better to use plastic insulated wire rather than enameled wire?

I've had three HF dipoles strung thru four trees at my remote location out in the boonies for five years. I use common Home Depot insulated stranded #14 600V THHN wire. I've never had any problems at all at the 100-150W level with the wire including at the ends which are buried in the foilage. I do tape the exposed solder joints at the insulators though. There'a a lot of chatter here and there about trees being quasi-conductors and catching fire etc. which I write it off as mythology.

However I have had major problems with the support ropes. The rope is the 3/16" jacketed UV-resistant Dacron type sold by The Wireman and others for ~13 cents a foot, It's not Home Depot rope, it's supposedly the best available for the purpose.

My experience indicates to me that while the wire is OK in all respects thru trees the ropes have to be replaced every two years. The problem is that tree branches of all sizes are very abrasive and will simply eat thru rope if there's any relative motion between the rope and the branches. Which is unaviodable in windy conditions. As a result I'm seriously considering replacing the rope with the same wire I use for the antennas.

w3rv

3317. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:22:32 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <2458e1hvamc297pubh042p4fm966hl1gk0@4ax.com>
Source record: 72783
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 15:06:54 +0100, "Polymath"
<invalid@invalid.invalid> Gave us:

>Indeed, the "governing" RFC even went so far as to
>state that bottom posting was the preferred method
>of the author but that there was no hard and fast rule
>about it.
>
>With top posting, you can quickly "thumb" through the
>posts with your hand on the "Next" button. With bottom
>posting you have to page down through much already-seen
>and over-quoted material. The net result is that bottom-posted
>articles tend to get skipped without the new material being read
>let alone being visible.

If you are skipping posts in threads which you were at one time
reading, you have some serious skills problems that go far beyond your
simplistic laziness to use more than one clic per post. You have the
mentality of a high school drop-out.

3318. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:24:18 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <3958e1hdut3g0bb8h53g7j23ed2lm1fvmf@4ax.com>
Source record: 72784
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 10:35:46 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>... get a gui news reader...

Don't top post. It has absolutely no bearing on which news client is
in use.

3319. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:27:14 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <qb58e1p8nbtnrcguk3bj17208egupmn1sh@4ax.com>
Source record: 72786
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 10:38:07 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Ham Op:
>
>I think some must still be attempting to use old linux/unix/dos news
>readers from the commandline--only way they could have a problem other
>than attempting to use one of the first GUI news readers ever
>programmed...

Your knowledge of what is or is not use or that of what is or is not
a gui based reader is hovering around nil.
>
>Let'em get a decent news reader...

Your knowledge of what a "decent news reader is IS at nil.

Your knowledge of this forum, and the proper way to utilize it is
not at nil as you have been informed. You simply ignore the facts and
choose to be a backward ass about it.

3320. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:28:09 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <bh58e11q7ndhmd72ehprds7pggvmdju6qt@4ax.com>
Source record: 72785
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 10:41:09 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Some people have been sold the line that there is something leet about
>bottom posting--obviously they haven't a clue... but even think they
>fool others!

Your an utter idiot.

3321. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:30:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <nEUEe.127$qP7.1763425@news.sisna.com>
Source record: 72787
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa:

I have really no other choice than to now consider you a mindless idiot...

You have been told many times no...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:3958e1hdut3g0bb8h53g7j23ed2lm1fvmf@4ax.com...
> On Sun, 24 Jul 2005 10:35:46 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>>... get a gui news reader...
>
> Don't top post. It has absolutely no bearing on which news client is
> in use.

3322. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:33:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <LGUEe.129$Fj7.1700995@news.sisna.com>
Source record: 72788
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa:

You idiot!

If you want my text bottom posted, do it yourself!!!

Either get a news reader which will format posts to please you or shut-up!

This is not welfare where we take care of you, take care of yourself!

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:qb58e1p8nbtnrcguk3bj17208egupmn1sh@4ax.com...
> On Sun, 24 Jul 2005 10:38:07 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Ham Op:
>>
>>I think some must still be attempting to use old linux/unix/dos news
>>readers from the commandline--only way they could have a problem other
>>than attempting to use one of the first GUI news readers ever
>>programmed...
>
> Your knowledge of what is or is not use or that of what is or is not
> a gui based reader is hovering around nil.
>>
>>Let'em get a decent news reader...
>
> Your knowledge of what a "decent news reader is IS at nil.
>
> Your knowledge of this forum, and the proper way to utilize it is
> not at nil as you have been informed. You simply ignore the facts and
> choose to be a backward ass about it.

3323. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:34:45 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <go58e1lbore51857f1jjob06skd1uusd4r@4ax.com>
Source record: 72789
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 15:05:18 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Wow. Those little "ham rule makers" just move in and start attempting to "regulate"
everything.

Wow, you are likely to be one of those "assembly wizards" that only
makes such a claim personally in tooting your own horn, when in
reality you cut so many corners on the standards that you are a wizard
of nothing more than your own bullshit. It's funny to see someone
that touts being able to program in assembly claiming that those of us
that do follow the standards are all on telenet or a command line news
client. You are stupid beyond compare.

3324. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:35:54 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <8ov7e1lhgg8scnvi1cu7klm8e80ttq0tc9@4ax.com>
Source record: 72790

On Sun, 24 Jul 2005 11:32:37 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>output will be 1000W CW and 1200W PEP.

Is the radiation pattern on all of these bands acceptable/useful?

>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner with
>a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL
>balanced tuner?

Study this before deciding: http://eznec.com/misc/ibalun.txt

Considering the capacitor in the Palstar isn't a balanced design, the
capacitive coupling from it to ground is asymetrical, so I would not
call it a balanced tuner. Also, I don't see anything that looks like
a 1500 W balun in there.

Ten Tec says, "Because there are only two variable components, there
is only one setting of each which will provide a perfect match to a
given load impedance. This unique setting automatically provides the
lowest Q network possible. Low Q means low circulating currents, hence
low loss, and it also provides the widest frequency bandwidth of
operation before retuning is necessary (very useful if you're moving
up and down the SSB portion of the band, for example)..."

They are correct when they say that there is only one setting for a
match, but the L-network Q is set by the load and source Z and is
likewise fixed and totally out of the control of the operator. This
may or may not give the largest operating BW and/or lowest loss.

For example, take a load Z of 5 -j10 at 7 MHz. With capacitor Q =1000
and inductor Q = 250 (good luck with a roller inductor), an L-network
of C = 1364 pF and L =0.568 uH will give SWR = 1.02. The network loss
will be 0.1 dB.

Using the same load Z and component Q, a high-pass-Tee network of Cin
= 1438 pF, L = 0.36 uH and Cout = 3912 pF will give SWR = 1.01 The
network loss will be 0.07 dB.

More parts, lower loss. So much for conventional wisdom. Now this is
a pretty wild load Z, but with certain antenna feedpoint Z and
transmission line lengths and Zo, it's possible. Admittedly, the
differences in insertion loss are negligble but they are different in
the -wrong- direction, thus proving the point.

Of course, try and find a tuner with capacitors of this high a value.

Also, there are some impedances that cannot be matched with either configuration of a low-pass (series inductor) L-network. The same can be said for any other topology, but you should be aware of this.

>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>balanced tuner with a DX Engineering 1:1 balun put on antenna side of tuner,
>but reversed in direction (converting unbalanced to balanced), or need I get
>a different tuner?

I wouldn't do this.

>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>unbalanced), but I can't afford it. Also, if I go with the unbalanced tuner,
>will the balun waste a ton of RF in heat and loss?

Maybe. In my opinion balun loss is no different from line attenuation. Line attenuation is magnified by SWR and I see no reason why balun loss wouldn't be too, particularly since most baluns are constructed from a transmission line.

>(4) I made a similar post on the Ten Tec List, and received lots of advice
>on point designs, but not the COMPARISON data I was looking for that will
>help me make the final decision to go with a balanced tuner vs an unbalanced
>(with balun) tuner.

>(5) I have plenty of room, would it make any difference if I put a 160 meter
>dipole instead?

If you have plenty of room, why limit yourself to one compromise antenna?

3325. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:37:39 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <0068e1dmdou1lojbn556j5vb8akaluff89@4ax.com>
Source record: 72791
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 15:33:14 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>
>Either get a news reader which will format posts to please you or shut-up!

Fuck off, you Usenet retard! Don't top post. It's that simple.
You do not get to tell your detractors to shut up. You are wrong, and
it is that simple.

3326. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:40:31 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ba0ea$42e4198b$471c636a$29659@ALLTEL.NET>
Source record: 72793
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I spit on your liberal left coast ideas. People who bitch about how people post are the same people that would take away all of our property rights with zoning laws, and determine what is healthy for us to eat.

You want everyone else to make your anal retentive life neat and orderly, and feel it is our duty to do so or you call us idiots.

I too have been here since the DARPA days, and had the third BBS in the US behind Ward C. and Bob Blue.

I chuckle at the little pukes that wasn't even born at the time making rules and guidelines...

Individuels of your ilk are invited to note the mistletoe pinned to my coattail.

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:s408e1t681aee8ugcd5bkn1dv79a5hlpt9@4ax.com...
> Funny that the only places idiots like you conform is when there is
> no way to get what you want otherwise, or if a cop has a gun pointed
.

3327. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:43:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ea1d0$42e4198c$471c636a$29659@ALLTEL.NET>
Source record: 72792

I have noted in the past that a KW will causes the leaves to turn brown, the limb to die removing the offending tree limb via self amputation.

"Bob Miller" <NOSPAM@neosoft.com> wrote in message news:u508e19tq37co8247ckdcv0kiqd99f4sjj@4ax.com...
> On Sun, 24 Jul 2005 14:53:08 -0400, "Bob" <someone@nospam.com> wrote:
>
> >I've got plenty of trees to hang up a dipole for 40 meters and feed it with
> >ladder line. Power level =< 100 Watts.
> >What's the opinion(s) on the wires contacting leaves, especially near the
> >end points? Better to use plastic insulated wire rather than enameled wire?
> >
>
> I use insulated wire. And a long-pole tree trimmer to keep the wires
> in the clear. Not that hard to clear a path.
>
> bob
> k5qwg
>
>

3328. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:54:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <s_UEe.135$aR1.2034806@news.sisna.com>
Source record: 72794
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa:

Then there is but one thing left, and you must do it...

STOP ME.

or better yet--bit bucket me!

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:0068e1dmdou1lojbn556j5vb8akaluff89@4ax.com...
> On Sun, 24 Jul 2005 15:33:14 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>
>>Either get a news reader which will format posts to please you or shut-up!
>
> Fuck off, you Usenet retard! Don't top post. It's that simple.
> You do not get to tell your detractors to shut up. You are wrong, and
> it is that simple.

3329. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 22:56:30 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <2l68e1t6umuj45srn20mkimht94rhm7idp@4ax.com>
Source record: 72795
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 18:40:31 -0400, "Fred W4JLE" <w4jle@w4jle.com>
Gave us:

> I spit on your liberal left coast ideas.

You are a sadly mistaken idiot.

> People who bitch about how people
>post are the same people that would take away all of our property rights
>with zoning laws, and determine what is healthy for us to eat.

I spit on your absolute refusal to conform to decades old standards
on your lazy assed whim.
>
>You want everyone else to make your anal retentive life neat and orderly,
>and feel it is our duty to do so or you call us idiots.

No. I call you an idiot because you step into a perfectly normal
forum, and fuck it all up, then claim that you are the norm. You may
be correct in one thing... the population of utterly stupid people in
Usenet is rising, and I'll bet that you do not know which side of the
fence you reside on.

>I too have been here since the DARPA days, and had the third BBS in the US
>behind Ward C. and Bob Blue.

Oh boy. I'd bet that claim to be utter bullshit as well. BBS's
sprouted up all over and there were hundreds of dolts just like you
claiming to be the first or second or third. You are very likely full
of shit due to the fact that your resource for your statistic is
flawed. There were plenty of private BBS's in place that never even
got on your special list. Bullshit proven.

Do you also claim to be one of the first HAMs? I'd bet you don't,
as you know that it would be a foolish claim.

>I chuckle at the little pukes that wasn't even born at the time making rules
>and guidelines...

You know nothing about it. Most folks that put forth the protocols
into the faces of dolts like you are older, and were in fact around.
I was around when it was conceived, even before it was put in place.
I'd be willing to bet you do not even know when that was, regardless
of whether you were alive or not, BBS boy.

>
>Individuels of your ilk are invited to note the mistletoe pinned to my

>coattail.

You probably can't afford a coat with tails. And the only thing
that needs to be there is a broomstick handle to plug the shit spewing
from it into Usenet.

3330. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 23:31:08 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a7782$42e424d1$471c636a$17458@ALLTEL.NET>
Source record: 72796
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Made my day, you have nothing to offer except personal attacks and profane
language.

Kings X

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:2l68e1t6umuj45srn20mkimht94rhm7idp@4ax.com...
> On Sun, 24 Jul 2005 18:40:31 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> Gave us:
>
> > I spit on your liberal left coast ideas.
>
> You are a sadly mistaken idiot.
>
> > People who bitch about how people
> >post are the same people that would take away all of our property rights
> >with zoning laws, and determine what is healthy for us to eat.
>
> I spit on your absolute refusal to conform to decades old standards
> on your lazy assed whim.
> >
> >You want everyone else to make your anal retentive life neat and orderly,
> >and feel it is our duty to do so or you call us idiots.
>
> No. I call you an idiot because you step into a perfectly normal
> forum, and fuck it all up, then claim that you are the norm. You may
> be correct in one thing... the population of utterly stupid people in
> Usenet is rising, and I'll bet that you do not know which side of the
> fence you reside on.
>
> >I too have been here since the DARPA days, and had the third BBS in the
US
> >behind Ward C. and Bob Blue.
>
> Oh boy. I'd bet that claim to be utter bullshit as well. BBS's
> sprouted up all over and there were hundreds of dolts just like you
> claiming to be the first or second or third. You are very likely full
> of shit due to the fact that your resource for your statistic is
> flawed. There were plenty of private BBS's in place that never even
> got on your special list. Bullshit proven.
>
> Do you also claim to be one of the first HAMs? I'd bet you don't,
> as you know that it would be a foolish claim.
>

> >I chuckle at the little pukes that wasn't even born at the time making
rules
> >and guidelines...
>
> You know nothing about it. Most folks that put forth the protocols
> into the faces of dolts like you are older, and were in fact around.
> I was around when it was conceived, even before it was put in place.
> I'd be willing to bet you do not even know when that was, regardless
> of whether you were alive or not, BBS boy.
>
> >
> >Individuels of your ilk are invited to note the mistletoe pinned to my
> >coattail.
>
> You probably can't afford a coat with tails. And the only thing
> that needs to be there is a broomstick handle to plug the shit spewing
> from it into Usenet.

3331. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 23:36:30 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <1g98e1hlovf0pbk8qnadvj6gr86n8t9lug@4ax.com>
Source record: 72797
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 19:31:08 -0400, "Fred W4JLE" <w4jle@w4jle.com>
Gave us:

>Made my day, you have nothing to offer except personal attacks and profane
>language.

As if your "I spit on..." CRAP was anything but that. You are an
idiot extraordinaire, and you did NOT have the third US BBS.

3332. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-24 23:58:48 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <AvidnRWqT9PEtnnfRVn-2Q@comcast.com>
Source record: 72798
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Nope!! Just efficient

NunYa Bidness wrote:
> On Sun, 24 Jul 2005 09:51:20 -0400, Ham op <hamop@comcast.net> Gave
> us:
>
>
>>Why not?? It's much more efficient use of my time.
>>
>
>
> How was it any easier to post that one line tripe at the top than
> where it belongs? How easy, oh yeah... a couple of clicks. You are
> one lazy bastard.

3333. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:04:00 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <oMmdnVRXC80PsXnfRVn-1g@comcast.com>
Source record: 72799
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

You haven't given one logical reason to bottom post.

You revert to name calling, insults, IQ assassination, challenging my IQ, while clearly demonstrating your IQ. Give a positive benefit of bottom posting, other than that's the way it's done, specially when a post may be very long, several pages or more, that requires scrolling through to locate your asinine answer. I could read your answer immediately and simply ignore it, if it were TOP POSTED.

NunYa Bidness wrote:

> On Sun, 24 Jul 2005 10:41:09 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>
>>Some people have been sold the line that there is something leet about
>>bottom posting--obviously they haven't a clue... but even think they
>>fool others!
>
>
> Your an utter idiot.

3334. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:06:00 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <oMmdnVdXC82XsHnfRVn-1g@comcast.com>
Source record: 72800
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

yes

Cecil Moore wrote:

> Ham op wrote:
>
>> Cecil ... GUIDELINES are not cast in concrete!!
>
>
> Is that a yes or a no answer?
>
>> Cecil Moore wrote:
>>
>>> Have you read the usenet posting guidelines?

3335. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:09:43 UTC
From: jerry <battery_dude@outerspace.net>
Message-ID: <42E42DC5.7048DC09@outerspace.net>
Source record: 72801

hi,

http://www.cebik.com/wire/turns.html

http://www.cebik.com/vhf/ms2.html

3336. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:11:02 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <bPCdneO39YCls3nfRVn-ig@comcast.com>
Source record: 72802

The Johnson Matchbox series are BALANCED tuners. I see my comment was ambiguous.

jgboyles@aol.com wrote:

>
> Ham op wrote:
>
>>No balun required in a properly designed unbalanced tuner. See the
>>Johnson Matchbox series.
>>
>>Dave wrote:
>>
>>
>>>how does the balanced tuner get from the unbalanced output of the amplifier
>>>and the balanced feedline? is there not a balun in there somewhere anyway?
>>>
>>>"greg knapp 5" <gknapp@freshrain.org> wrote in message
>>>news:wtednatQf9NbQ37fRVn-iQ@speakeasy.net...
>>>
>>>
>>>>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>>>>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>>>>output will be 1000W CW and 1200W PEP.
>>>>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
>>>>with a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar
>>>>BT1500BAL balanced tuner?
>>>>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>>>>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
>>>>tuner, but reversed in direction (converting unbalanced to balanced), or
>>>>need I get a different tuner?
>>>>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>>>>unbalanced), but I can't afford it. Also, if I go with the unbalanced
>>>>tuner, will the balun waste a ton of RF in heat and loss?
>>>>(4) I made a similar post on the Ten Tec List, and received lots of advice
>>>>on point designs, but not the COMPARISON data I was looking for that will
>>>>help me make the final decision to go with a balanced tuner vs an
>>>>unbalanced (with balun) tuner.
>>>>(5) I have plenty of room, would it make any difference if I put a 160
>>>>meter dipole instead?
>>>>Thanks & 73,
>>>>Greg, N6GK
>
> Hi Ham Op, did you mean no balun required in a properly designed
> "balanced tuner"? Are not the Johnson Series balanced tuners?

> Gary N4AST
>

3337. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:35:22 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <etWEe.8327$bT4.5232@newsfe1-gui.ntli.net>
Source record: 72803
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Usenet?
on
it
do
why
so
not
thought
I
backwards?
everything
write
normally
you
Do
NunYa Bidness wrote:
> On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> Gave
> us:
>
>
>>I've used the internet since 1985 [DARPA net] and have yet to see the
>>11th commandment prohibiting top posting or forcing bottom posting.
>>
>>I prefer TOP POSTING. I've read the original message previously
>
>
>
> It isn't about what you have read, or what you have stored. Get a
> clue.
>
>
>>, it is
>>stored sequentially on my computer sorted by thread and date if I need a
>>refresher, and I don't have to scroll through a lot of attached garbage
>>to get to your meaningful or meaningless comments.
>
>
> What you fail to realize is that what you have stored, and the
> manner which you read Usenet is not how everyone does it. The
> protocols (which do exist) are in place to increase understanding of
> the post from that very post, without the need to look up or download
> additional posts. Are you getting it yet?
>

>
>>TOP POSTING, IMO, provides much more efficient use of my time.
>
>
> You are what Usenet users that actually know what the forum is about
> call LAZY. How hard can it be, and a few seconds is not some critical
> number. Are you really that pathetic?
>
>
>>Get a life. There's much more to life than criticizing where a response
>>is posted.
>
>
> Funny that the only places idiots like you conform is when there is
> no way to get what you want otherwise, or if a cop has a gun pointed
> at you. You are the same type of idiot I see here in California that
> doesn't stop for stopped traffic. They traverse either to the right
> or left like little inertial idiots, or the idiots that wear their
> pants down past their ass.
YAWN! Another 12 year old who thinks he pioneered the universe.
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3338. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:44:13 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <yBWEe.67194$ro.50501@fed1read02>
Source record: 72804
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Ham op" <hamop@comcast.net> wrote in message
news:caOdnZ8J072NAn7fRVn-1A@comcast.com...
> I've used the internet since 1985 [DARPA net] and have yet to see the 11th
> commandment prohibiting top posting or forcing bottom posting.
>
> I prefer TOP POSTING.

And I prefer editing and bottom posting. Obviously, if you don't take the time to distill the OP's comments, then you bury your reply under his verbiage. Perhaps one of the best arguments for editing is that you have to think about what's important in the previous post. That allows you to focus your reply.

Another criteria for deciding to top or bottom post is your estimation of the audience. Critical thinkers will want to review the salient points of the discussion, and an edited bottom post gives them the facts in a linear fashion. However, if you think your audience is a bunch of attention-deficient rude boobs, then top posting is indicated. Top posting is ideally suited to replies that consist of "Yeah, me too!"

--
Ed
WB6WSN
El Cajon, CA USA

3339. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:50:46 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <vGWEe.26549$do5.2641@bignews5.bellsouth.net>
Source record: 72805

Ropes:==> I tried using normal white nylon line (But Painting it black).
the paint makes it stronger and uv-resistant. And lasts longer.

"Brian Kelly" <kelly@dvol.com> wrote in message
news:1122243744.992739.202480@g47g2000cwa.googlegroups.com...
> Bob wrote:
> > I've got plenty of trees to hang up a dipole for 40 meters and feed it
with
> > ladder line. Power level =< 100 Watts.
> > What's the opinion(s) on the wires contacting leaves, especially near
the
> > end points? Better to use plastic insulated wire rather than enameled
wire?
>
> I've had three HF dipoles strung thru four trees at my remote location
> out in the boonies for five years. I use common Home Depot insulated
> stranded #14 600V THHN wire. I've never had any problems at all at the
> 100-150W level with the wire including at the ends which are buried in
> the foilage. I do tape the exposed solder joints at the insulators
> though. There'a a lot of chatter here and there about trees being
> quasi-conductors and catching fire etc. which I write it off as
> mythology.
>
> However I have had major problems with the support ropes. The rope is
> the 3/16" jacketed UV-resistant Dacron type sold by The Wireman and
> others for ~13 cents a foot, It's not Home Depot rope, it's supposedly
> the best available for the purpose.
>
> My experience indicates to me that while the wire is OK in all respects
> thru trees the ropes have to be replaced every two years. The problem
> is that tree branches of all sizes are very abrasive and will simply
> eat thru rope if there's any relative motion between the rope and the
> branches. Which is unaviodable in windy conditions. As a result I'm
> seriously considering replacing the rope with the same wire I use for
> the antennas.
>
> w3rv
>

3340. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 00:54:58 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <RfGdnUwXnoT7pXnfRVn-1w@speakeasy.net>
Source record: 72806

I read the article you cited, looked at the QST article on the 238A (noting the size of the 3.5 Kv peak capacitor), and looked at the Palstar webpage at the "inside" shot of the Palstar BT1500BAL (huge capacitor by comparison, rated at 4.5 KV; but noted it had a ferrite input balun) and also read W8JI's comparison of balun loss that showed the difference between the various baluns...with the DX Engineering, coiled coax (20 ft "scrambled"), and 60-foot "solenoid", coming out the lowest loss, and with the DXE one being the lowest...but that was at a LOW SWR!

If I had a low SWR on all bands why would I need a tuner? I know it will be pretty high SWR on some bands, so what then?

I guess that is what MY REAL QUESTION boils down to...although I like the "single resonant" L-type Ten Tec 238 unbalanced tuner (and it would work great with my future inverted L), it needs a balun to match it to the open wire feed. Will the balun, at HIGH SWRs, just burn up my watts in heat and smoke? Versus, a balanced tuner (Johnson, Palstar), which doesn't need a balun (just a small one at input, which is at low SWR and negligible loss), and does not overheat. So what I am wrestling with is which configuration AND WHY:
(1) 238B to DXE 1:1 current balun to open wire
versus
(2) Palstar BT1500BAL to open wire.

As I see it from all the answers I've received, there are people with strong opinions on both sides, that have just given me their conclusion: do x or do y. But what I am still missing is WHY do x or y, and how they bounce off one another.

FOR INSTANCE, WHICH COMBO, (1) OR (2) WILL GIVE THE LOWEST LOSS WHEN FEEDING A BALANCED ANTENNA AT AN 8:1 SWR? HOW MUCH LOWER...LOSS 100 WATTS FOR ONE AND 125 FOR THE OTHER? That is what I don't understand yet.

One gentleman did address my question of whether I could feed an Inverted L (like on 160) with a balanced tuner if I used a balun to change the unbalanced feed from the antenna to a balanced feed connected the output of the balanced tuner, saying don't, but why not? Does this mean that a balanced tuner can NEVER be used for UNbalanced loads through use of a balun?

Another gentleman pointed out that most people just go unbalanced and don't worry about the heat/loss in the balun...or change the length of the feed line slightly (per Cecil's method) until you get a "happy" length the balun can handle, and then buy the most rugged balun you can get to handle the mismatches.

CONCLUSIONS SO FAR: As I see it, the 238B has versatility in that it can do both balanced and unbalanced (with a good external balun instead of its internal voltage balun), but the external balun will heat up and could even fail at 1200 watts to a feed line feeding some mismatched frequencies. But I could lengthen/shorten the balanced feed line to adjust it I guess, looking for its happy spot! On the other hand, the PALSTAR will work great with unbalanced lines (no lossy balun), even at high SWR, but it doesn't do unbalanced lines (although one person mentioned the capacitor might be too small for some situations--but I compared it and it seems to be larger and higher rated (4.5 KV) than the Ten Tec). From your comments I gather that almost any tuner or tuner-balun combo will do great at LOW SWR...but I don't need a tuner for those situations. It's when the SWR gets up higher, like 8:1 or 16:1 that I am concerned about with 1200 watts. In ARRL tests, the Palstar handled that OK, but no such tests for a 238B handling balanced lines (only unbalanced lines a few years back in QST). And what about the DXE, which W8JI tests highly rated, but (if I read the tests right) the tests were done at approx. 1.5 to 1 SWR...no where near the 8 to 1 that I am envisioning. Some of you have said the balun will heat up or even burn up (although I understand the DXE is supposed to be rugged enough to only heat up), but doesn't that rob me of all my power--heat is not a good thing!

And, if both will work, to some degree (barring the burnout of the balun), is the 238B the way to go because I can ALSO do unbalanced lines for other antennas?

I guess if I never wanted to have any unbalanced antennas in the future, I'd go the balanced tuner and be done with it. But if the loss through the 238B and DXE Tuner Balun would not be substantially greater than the Balanced Tuner, but will permit me to match unbalanced lines too for future antennas, then that sure seems the way to go (and adjust the feed line length to best match).

What do you all think?

And thanks for you many replies that have brought me this far so far!

73,
Greg N6GK
Greg, N6GK

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:d118e1p56kt40pjct2touln10nmh3f5c07@4ax.com...
> On Sun, 24 Jul 2005 11:32:37 -0700, "greg knapp 5"
> <gknapp@freshrain.org> wrote:
>
>>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>>output will be 1000W CW and 1200W PEP.
>>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
>>with
>>a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL
>>balanced tuner?
>>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a

>>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
>>tuner,
>>but reversed in direction (converting unbalanced to balanced), or need I
>>get
>>a different tuner?
>>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>>unbalanced), but I can't afford it. Also, if I go with the unbalanced
>>tuner,
>>will the balun waste a ton of RF in heat and loss?
>>(4) I made a similar post on the Ten Tec List, and received lots of advice
>>on point designs, but not the COMPARISON data I was looking for that will
>>help me make the final decision to go with a balanced tuner vs an
>>unbalanced
>>(with balun) tuner.
>>(5) I have plenty of room, would it make any difference if I put a 160
>>meter
>>dipole instead?
>>Thanks & 73,
>>Greg, N6GK
>>
>
> Have not seen any published tests comparing balanced vs. unbalanced
> tuners, so any comparisons will probably be theoretical in nature.
> Also, instread of the dx engineering balun, you might look at a
> w2du-style balun -- see his article at
> http://www.w2du.com/Reflection2.html
>
> bob
> k5qwg
>
>
>

3341. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:02:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <jSWEe.154$2O2.2130033@news.sisna.com>
Source record: 72807
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

My gawd man, all those lines for a simple "yes."

Now you have went and done it, Nunya NumNuts is going to be calling to have you flogged!

John

"Ham op" <hamop@comcast.net> wrote in message news:oMmdnVdXC82XsHnfRVn-1g@comcast.com...
> yes
>
> Cecil Moore wrote:
>
>> Ham op wrote:
>>
>>> Cecil ... GUIDELINES are not cast in concrete!!
>>
>>
>> Is that a yes or a no answer?
>>
>>> Cecil Moore wrote:
>>>
>>>> Have you read the usenet posting guidelines?
>

3342. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:05:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <xVWEe.155$LI.1937501@news.sisna.com>
Source record: 72808
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Fred:

My gawd man, your posts have improved tremendously since I have come here!

Each morning I jump up and check for your posts before even stepping outside to grab the paper!

The dry satire-humor is delightful and refreshing...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:ba0ea$42e4198b$471c636a$29659@ALLTEL.NET...
> I spit on your liberal left coast ideas. People who bitch about how people
> post are the same people that would take away all of our property rights
> with zoning laws, and determine what is healthy for us to eat.
>
> You want everyone else to make your anal retentive life neat and orderly,
> and feel it is our duty to do so or you call us idiots.
>
> I too have been here since the DARPA days, and had the third BBS in the US
> behind Ward C. and Bob Blue.
>
> I chuckle at the little pukes that wasn't even born at the time making rules
> and guidelines...
>
> Individuels of your ilk are invited to note the mistletoe pinned to my
> coattail.
>
> "NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
> news:s408e1t681aee8ugcd5bkn1dv79a5hlpt9@4ax.com...
>> Funny that the only places idiots like you conform is when there is
>> no way to get what you want otherwise, or if a cop has a gun pointed
> .
>
>

3343. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:18:25 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <R5adnQDbxJV-oHnfRVn-tA@speakeasy.net>
Source record: 72809

To answer your post:

Yes, I have looked carefully at the theoretical radiation pattern, and it is acceptable for now due to a number of constraints I am working against that do not permit something different.

My goal is to have a strong signal from my QTH out to about 700 miles on 80/75 (for a net for which I am net control), and a decent signal on the rest of the HF bands. I am not so concerned about the peaks and valleys in the radiation patter on the higher HF bands as after 45 years of hamming, my #1 priority is no longer chasing DX pileups or contesting big time...I'd rather spend my time meeting new hams and getting to know them (they are really very interesting people!)...not just "599 CA" or "599 #683 about 600 times in two days. The gain peaks will give me plenty of people to talk with.

I do not forsee having the ability to put up my beam and regular tower up again for various reasons (mainly too much hassel, time, and expense with my poor health), so basically all I have available is one 70 foot high mast (last 30 feet of which are Radio Shack 10 foot sections) in the back sheep pasture, that will have a low angle on the higher bands due to its height that might help make up for no multi-element gain. I do have two multi-band verticals, but the local noise is pretty bad...so hoping going horizontal and perhaps an ANC-1 will provide better receive.

73,

Greg, N6GK

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:8ov7e1lhgg8scnvi1cu7klm8e80ttq0tc9@4ax.com...
> On Sun, 24 Jul 2005 11:32:37 -0700, "greg knapp 5"
> <gknapp@freshrain.org> wrote:
>
>>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>>output will be 1000W CW and 1200W PEP.
>
> Is the radiation pattern on all of these bands acceptable/useful?
>
>>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
>>with
>>a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL
>>balanced tuner?
>
> Study this before deciding: http://eznec.com/misc/ibalun.txt

>
> Considering the capacitor in the Palstar isn't a balanced design, the
> capacitive coupling from it to ground is asymetrical, so I would not
> call it a balanced tuner. Also, I don't see anything that looks like
> a 1500 W balun in there.
>
> Ten Tec says, "Because there are only two variable components, there
> is only one setting of each which will provide a perfect match to a
> given load impedance. This unique setting automatically provides the
> lowest Q network possible. Low Q means low circulating currents, hence
> low loss, and it also provides the widest frequency bandwidth of
> operation before retuning is necessary (very useful if you're moving
> up and down the SSB portion of the band, for example)..."
>
> They are correct when they say that there is only one setting for a
> match, but the L-network Q is set by the load and source Z and is
> likewise fixed and totally out of the control of the operator. This
> may or may not give the largest operating BW and/or lowest loss.
>
> For example, take a load Z of 5 -j10 at 7 MHz. With capacitor Q =1000
> and inductor Q = 250 (good luck with a roller inductor), an L-network
> of C = 1364 pF and L =0.568 uH will give SWR = 1.02. The network loss
> will be 0.1 dB.
>
> Using the same load Z and component Q, a high-pass-Tee network of Cin
> = 1438 pF, L = 0.36 uH and Cout = 3912 pF will give SWR = 1.01 The
> network loss will be 0.07 dB.
>
> More parts, lower loss. So much for conventional wisdom. Now this is
> a pretty wild load Z, but with certain antenna feedpoint Z and
> transmission line lengths and Zo, it's possible. Admittedly, the
> differences in insertion loss are negligble but they are different in
> the -wrong- direction, thus proving the point.
>
> Of course, try and find a tuner with capacitors of this high a value.
>
> Also, there are some impedances that cannot be matched with either
> configuration of a low-pass (series inductor) L-network. The same can
> be said for any other topology, but you should be aware of this.
>
>>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
>>tuner,
>>but reversed in direction (converting unbalanced to balanced), or need I
>>get
>>a different tuner?
>
> I wouldn't do this.
>
>>(3) In a perfect world, I'd buy both tuners (one for balanced and one for

>>unbalanced), but I can't afford it. Also, if I go with the unbalanced
>>tuner,
>>will the balun waste a ton of RF in heat and loss?
>
> Maybe. In my opinion balun loss is no different from line
> attenuation. Line attenuation is magnified by SWR and I see no reason
> why balun loss wouldn't be too, particularly since most baluns are
> constructed from a transmission line.
>
>>(4) I made a similar post on the Ten Tec List, and received lots of advice
>>on point designs, but not the COMPARISON data I was looking for that will
>>help me make the final decision to go with a balanced tuner vs an
>>unbalanced
>>(with balun) tuner.
>
>>(5) I have plenty of room, would it make any difference if I put a 160
>>meter
>>dipole instead?
>
> If you have plenty of room, why limit yourself to one compromise
> antenna?
>

3344. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:20:35 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <sNudnVG2Wej7o3nfRVn-sw@speakeasy.net>
Source record: 72810

Interesting article. I also read W8JI's article on baluns that discusses this type of balun too. Very interesting. Current balun definitely seems the ONLY way to go!

"Bob Miller" <NOSPAM@neosoft.com> wrote in message news:d118e1p56kt40pjct2touln10nmh3f5c07@4ax.com...
> On Sun, 24 Jul 2005 11:32:37 -0700, "greg knapp 5"
> <gknapp@freshrain.org> wrote:
>
>>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>>output will be 1000W CW and 1200W PEP.
>>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
>>with
>>a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar BT1500BAL
>>balanced tuner?
>>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
>>tuner,
>>but reversed in direction (converting unbalanced to balanced), or need I
>>get
>>a different tuner?
>>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>>unbalanced), but I can't afford it. Also, if I go with the unbalanced
>>tuner,
>>will the balun waste a ton of RF in heat and loss?
>>(4) I made a similar post on the Ten Tec List, and received lots of advice
>>on point designs, but not the COMPARISON data I was looking for that will
>>help me make the final decision to go with a balanced tuner vs an
>>unbalanced
>>(with balun) tuner.
>>(5) I have plenty of room, would it make any difference if I put a 160
>>meter
>>dipole instead?
>>Thanks & 73,
>>Greg, N6GK
>>
>
> Have not seen any published tests comparing balanced vs. unbalanced
> tuners, so any comparisons will probably be theoretical in nature.
> Also, instread of the dx engineering balun, you might look at a
> w2du-style balun -- see his article at
> http://www.w2du.com/Reflection2.html
>

> bob
> k5qwg
>
>
>

3345. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:22:15 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <SuudnSDTLv5Vo3nfRVn-2g@speakeasy.net>
Source record: 72811

I think you summarized it well. thanks!

"Dave" <noone@nowhere.com> wrote in message
news:t7WdnZmXBIhZmnnfRVn-sA@crocker.com...
>
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:11e7qkd9t8i9g48@corp.supernews.com...
>> In article <gr2dnWCrDJoEf37fRVn-uA@crocker.com>,
>> Dave <noone@nowhere.com> wrote:
>>
>>>how does the balanced tuner get from the unbalanced output of the
>>>amplifier
>>>and the balanced feedline? is there not a balun in there somewhere
>>>anyway?
>>
>> I've seen three approaches used:
>>
>> - Asymmetrical (unbalanced) tuner of the T or L or pi configuration,
>> with a balun at the output. This seems to be the most common
>> configuration, but is often said to suffer from a degraded balance
>> or unacceptable losses in the balun when feeding high-Z loads.
>> It's not easy for a balun to provide adequate choking reactance
>> when feeding such loads.
>>
>> - Tuners which use a symmetrical T or L configuration, with the input
>> to the matching network being fed from the rig/amplifier's 50-ohm
>> output via a balun. An internal W2DU-type "ferrite beads on coax"
>> balun seems to be popular in such designs.
>>
>> - Link-coupled tuners, such as the Johnson Matchbox and the newer
>> Z-match designs. The input side of the circuit operates unbalanced
>> and is usually asymmetrical, while the output side (the link) is
>> balanced with respect to ground. The input and output sides are
>> coupled inductively. There's sometimes a small amount of imbalance
>> created by capacitive coupling across the link, but this seems to
>> be small enough to have little practical effect on the quality of
>> the balance. In this case, the balanced-to-unbalanced function is
>> performed by the inductive link, and there's no separate "balun"
>> component.
>>
> so, no matter how you spell it, unbalanced in, balanced out, somehow the
> tuner either has a component called specifically a balun, or combines it
> into other parts that also transform impedance... essentially making the
> whole tuner one big balun. no matter how its done somewhere between the

> amplifier unbalanced output and the balanced wire there is something doing
> the balun function.
>
>

3346. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:45:31 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1122255931.157586.178190@g14g2000cwa.googlegroups.com>
Source record: 72813

Hal Rosser wrote:
> Ropes:==> I tried using normal white nylon line (But Painting it black).
> the paint makes it stronger and uv-resistant. And lasts longer.

I have around 500 feet of rope in use at the site and I am *not* gonna
paint 500 feet of rope!

Heh.

w3rv

3347. FA: 19 Issues - IEEE Transactions on MICROWAVE THEORY and TECHNIQUES

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 01:45:52 UTC
From: andrew <andrew@kdjfokjowkdirv.com>
Message-ID: <240720052145528723%andrew@kdjfokjowkdirv.com>
Source record: 72812
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4564539117

3348. Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:04:39 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns969DC20C7B434spectrumhogstarbandn@207.106.93.175>
Source record: 72814

I plan on building a short dipole (inverted V) for traveling in my tiny RV. It will only be designed for 75M. The mast is 20' tall, and I wish the legs to be about 24 feet each.

I still haven't decided where to place the inductors, but in any case, I have a question about their design. This antenna will only be used at the 5 watt level with a FT-817 Yaesu; an LDG Z-11 tuner is also available, but probably not needed.

If I make my 75M dipole legs for about 24 feet long, then I figure I will need about 70 uH inductors if they are center located.

My Question: What would be the requirement for a 70 uH inductor that only needs to work with 5 watts? Do I need open air inductor with spacing between windings, or would a smaller multi wound coil with insulated wire suffice?

Thanks for any opinions on this.

Ed K7AAT

3349. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:07:16 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <v8i8e1dfinnholoke5nl1imcuv15s93fca@4ax.com>
Source record: 72815

```
On Sun, 24 Jul 2005 18:43:12 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I have noted in the past that a KW will causes the leaves to turn brown, the
>limb to die removing the offending tree limb via self amputation.

Ain't never run no 'gallon' ...

bob
k5qwg

>
>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:u508e19tq37co8247ckdcv0kiqd99f4sjj@4ax.com...
>> On Sun, 24 Jul 2005 14:53:08 -0400, "Bob" <someone@nospam.com> wrote:
>>
>> >I've got plenty of trees to hang up a dipole for 40 meters and feed it
>with
>> >ladder line. Power level =< 100 Watts.
>> >What's the opinion(s) on the wires contacting leaves, especially near the
>> >end points? Better to use plastic insulated wire rather than enameled
>wire?
>> >
>>
>> I use insulated wire. And a long-pole tree trimmer to keep the wires
>> in the clear. Not that hard to clear a path.
>>
>> bob
>> k5qwg
>>
>>
>
```

3350. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:16:41 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ba025$42e44bcc$471c636a$13675@ALLTEL.NET>
Source record: 72816
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Glad you enjoy it John, As California is about to fall in the ocean from the "big one", we should probably enjoy the left wing babble before it becomes a mere memory...

"John Smith" <assemblywizard@gmail.com> wrote in message news:xVWEe.155$LI.1937501@news.sisna.com...
> Fred:
>
> My gawd man, your posts have improved tremendously since I have come here!

3351. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:28:35 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <Xt-dnZoBpLax03nfRVn-3A@vnet-inc.com>
Source record: 72817

It is a whole lot easier to buy black "550" (parachute) cord. Braided and sheathed, it is great. Have had mine up for over 5 years in the open with no problem. In areas where there was contact with something, i.e., a tower or tree about 3 years is all I can get.

Sportsman's Guide usually has the stuff every couple of issues.

3352. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:36:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <LeYEe.170$Y44.2335872@news.sisna.com>
Source record: 72821
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Fred:

I live in california :(

However, I am far enough inland (on the east side of the san andreas fault) where when it does drop in to meet davey jones locker, I will own some ocean front property!!!

Mostly it will be the rich industrial areas which go, and you can darn well bet we will lose San francisco (the gay bay).

Even before the news reports it, the guys back east will be able to know it has happened--just listen for the applause.

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:ba025$42e44bcc$471c636a$13675@ALLTEL.NET...
> Glad you enjoy it John, As California is about to fall in the ocean from the
> "big one", we should probably enjoy the left wing babble before it becomes a
> mere memory...
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:xVWEe.155$LI.1937501@news.sisna.com...
>> Fred:
>>
>> My gawd man, your posts have improved tremendously since I have come here!
>
>

3353. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:36:49 UTC
From: Owen <owen@no.where>
Message-ID: <bgi8e15sr88d9bq3faf54ipqrbaoa16nsi@4ax.com>
Source record: 72818

On Sun, 24 Jul 2005 20:50:46 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>Ropes:==> I tried using normal white nylon line (But Painting it black).
>the paint makes it stronger and uv-resistant. And lasts longer.

Some different thoughts on painted rope:

Synthetic fibre ropes are subject to UV attack, but they are also
often subject to chemical attack.

If your rope really is nylon (Polyamide), it is resistant to alkalis
but is sensitive to acid attack. It should not be painted with
anything that will be acidic, or create acidic products in
decomposition.

In most serious rigging applications, any synthetic fibre rope or
sling that was subject to chemical inundation (acid, alkali, solvents,
paints, fuel, oil, contaminated water etc) would be condemned.
Additionally, painting the exterior of a rope probably increases the
risk of rot and mildew internal to the rope.

Over here, a very low cost synthetic fibre laid three stand rope
called "Silver Rope" (flat spin taniklon fibre), white in colour, is
used for marine applications. Not only is it dirt cheap, but it seems
to last on small boat moorings for years. I have had 6mm halyards of
Silver Rope up for over 5 years and there is no significant
degradation. (I wouldn't paint it, it resists mild acids, but is
attacked by alkalis.) (Silver Rope is about the same strength as
natural fibre rope, and about 50% of that of nylon.)

My choice for a synthetic fibre rope for non-structural antenna
rigging would be Silver Rope. It is cheap, it holds knots and splices
well, it is resistant to mild acids (pollution by products), and seems
to give a reasonable service life in UV exposure.

Polypropylene is also resistant to mild acids (and alkalis), but it is
a slippery (greasy) rope that doesn't hold knots or splices as readily
as natural fibre ropes.

Owen
--

3354. Re: The Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:40:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122259400_409@spool6-east.superfeed.net>
Source record: 72819

Richard Clark wrote:
> We begin with the model found at:
> http://www.qsl.net/w5dxp/weblaser.GIF
>
> Which has been variously described in text as:
> 1w | 1/4WL |
> laser-----air-----|---thin-film---|---glass---...
> 1st medium | 2nd medium | 3rd medium
> n=1.0 n=1.2222 n=1.4938
> Pfor=1w Pfor=1.0101w Pfor=1w
> Pref=0w Pref=0.0101w Pref=0w
> which, of course, is in error

Richard, it would be nice if you retracted your hyperbole since
by now you have realized that everything above is correct, given
the previously stated boundary conditions. You have certainly
successfully demonstrated "The Failure of Poor Concepts in
Discussing Thin Layer Reflections".

> I am going to use the same BW correction to find that the un-cancelled
> reflection products are TEN TIMES BRIGHTER THAN THE SUN!

There's a magnitude of difference between the *amplitude* reflection
which you mistakenly used and the *power* reflection coefficient,
which you should have used. You will find that the two reflected waves
are exactly the same magnitude (0.01w) and 180 degrees out of phase and
thus cancel to a magnitude of zero in the direction of the source. As I
said before, the reflections from that thin-film are flat black. The
energy components from the wave cancellation join the forward wave
in the thin film.

P1 = 1w*0.99 = 0.99w
P2 = 0.0101w*0.01 = 0.000101w
P1 + P2 + 2*sqrt(P1*P2) = 0.99w + 0.000101w + 0.02w = 1.0101w
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3355. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 02:59:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122260534_433@spool6-east.superfeed.net>
Source record: 72820
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg Edwards wrote:

>>The English are not very spiritual people, so they
>>invented cricket to give them some idea of eternity.
>>- George Bernard Shaw
>
> Did George top post or bottom post?

Hey Reg, I just got this quote off The Drudgereport web page.

" ... (London) senior police officers defended a policy of
shooting dead individuals ..."

Do the London police really shoot dead people? (Ain't English
a hoot?)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3356. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 04:56:16 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <hvr8e19tes4dklthqq0aeep81f32puitvm@4ax.com>
Source record: 72822
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 20:04:00 -0400, Ham op <hamop@comcast.net> Gave
us:

>You haven't given one logical reason to bottom post.
>
>You revert to name calling, insults, IQ assassination, challenging my
>IQ, while clearly demonstrating your IQ. Give a positive benefit of
>bottom posting, other than that's the way it's done, specially when a
>post may be very long, several pages or more, that requires scrolling
>through to locate your asinine answer. I could read your answer
>immediately and simply ignore it, if it were TOP POSTED.

You do not understand what Usenet is then. It isn't a message board
between two folks having a conversation, it IS a place where such
conversations can benefit any and all that read them. The entire
point of proper posting is so that ANY person popping into the group
for a read, can garner the entire idea of a post *without* having to
go find, download, and plow through a number of others to do it. It
has nothing to do with YOUR convenience and everything to do with the
stray "just walked in" reader. Your attitude about the whole thing is
what is asinine, and that alone is what prompted your much deserved
put downs. In other words, you DO have a reduced IQ if you don't even
have the time to read, learn and follow the protocols and expectations
of a forum you happen to think is some "do as you please" thing, when
it is not, by any stretch. Your convenience is not the issue in any
way.

3357. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 04:59:26 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <tas8e1ln51g32rmdc41402c2jrnu2gg77e@4ax.com>
Source record: 72823
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 00:35:22 GMT, Frank Turner-Smith G3VKI
<g3vki@turner-smith.co.uk> Gave us:

>Usenet?
>on
>it
>do
>why
>so
>not
>thought
>I
>backwards?
>everything
>write
>normally
>you
>Do

Placing your answer in front of the text you are replying to IS
backwards, ass.

snip

>YAWN! Another 12 year old who thinks he pioneered the universe.

You act as if you haven't been in Usenet more than two months, and
then act as if you are a twelve year old adolescent twit when you
decide that long accepted standards no longer apply, or do not apply
to you. Get a clue, dumbass.

3358. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 05:02:39 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <0js8e1lfdc297i2b16bt7marn44vfack5l@4ax.com>
Source record: 72725
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 22:16:41 -0400, "Fred W4JLE" <w4jle@w4jle.com>
Gave us:

>Glad you enjoy it John, As California is about to fall in the ocean from the
>"big one", we should probably enjoy the left wing babble before it becomes a
>mere memory...
>
More utter, meaningless stupidity.

If it does by some thin chance, however, I'll be one that is diving
into banks, and retrieving safety deposit boxes.

3359. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 05:02:55 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Um_Ee.28881$TU.25830@bignews1.bellsouth.net>
Source record: 72824

"Brian Kelly" <kelly@dvol.com> wrote in message
news:1122255931.157586.178190@g14g2000cwa.googlegroups.com...
>
>
> Hal Rosser wrote:
> > Ropes:==> I tried using normal white nylon line (But Painting it black).
> > the paint makes it stronger and uv-resistant. And lasts longer.
>
> I have around 500 feet of rope in use at the site and I am *not* gonna
> paint 500 feet of rope!
>
> Heh.
>
> w3rv

I know what you mean - it would be tough to hang on the rope and keep from
falling and manage the paint bucket and the paint brush all at the same
time. :-)
- but I meant to paint the rope <before> you put it up. ;-)

3360. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 05:04:27 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <mns8e1hjfo5vnbdjh0gg3i8bt6topj8iof@4ax.com>
Source record: 72726
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 21:59:40 -0500, Cecil Moore <w5dxp@hotmail.com>
Gave us:

>Reg Edwards wrote:
>
>>>The English are not very spiritual people, so they
>>>invented cricket to give them some idea of eternity.
>>>- George Bernard Shaw
>>
>> Did George top post or bottom post?
>
>Hey Reg, I just got this quote off The Drudgereport web page.
>
>" ... (London) senior police officers defended a policy of
>shooting dead individuals ..."
>
>Do the London police really shoot dead people? (Ain't English
>a hoot?)

I'd say the guy was dead around the time of the second round fired,
so the other three qualify.

3361. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 05:09:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11e8t0tgm1niu36@corp.supernews.com>
Source record: 72727

Owen wrote:
> . . .
> Polypropylene is also resistant to mild acids (and alkalis), but it is
> a slippery (greasy) rope that doesn't hold knots or splices as readily
> as natural fibre ropes.

Polypropylene deteriorates rapidly from the UV in sunlight. Here in western Oregon it'll last a couple of years before seriously weakening, but in Denver (mile high and lots of sun) it turns to little more than powder in about six months.

Roy Lewallen, W7EL

3362. Re: Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 05:22:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11e8tpdfk1o2h04@corp.supernews.com>
Source record: 72728

Ed wrote:
> I plan on building a short dipole (inverted V) for traveling in my tiny
> RV. It will only be designed for 75M. The mast is 20' tall, and I wish
> the legs to be about 24 feet each.
>
> I still haven't decided where to place the inductors, but in any case, I
> have a question about their design. This antenna will only be used at the
> 5 watt level with a FT-817 Yaesu; an LDG Z-11 tuner is also available, but
> probably not needed.
>
> If I make my 75M dipole legs for about 24 feet long, then I figure I
> will need about 70 uH inductors if they are center located.
>
> My Question: What would be the requirement for a 70 uH inductor that
> only needs to work with 5 watts? Do I need open air inductor with spacing
> between windings, or would a smaller multi wound coil with insulated wire
> suffice?
>
> Thanks for any opinions on this.
>
>
> Ed K7AAT

Just about any inductor will withstand the power level, so your tradeoffs are among size, weight, expense, weather resistance, and loss. The higher the inductor Q, the lower the loss. But to get the maximum Q you need a large, air wound inductor that stays dry -- any water between turns of any kind of inductor will spoil the Q. I've made an antenna similar to the one you describe (but half the size, for 40 meters) with reasonably low loss using two large powdered iron cores for loading at the feedpoint. It was conveniently matched by link coupling to the cores which of course you won't be able to do if the loads are away from the feedpoint. If you can tolerate the size and/or weight, the use of multiple conductors -- fanned or parallel --, or (not as good) a single large diameter conductor will reduce the loss two ways. First, it reduces the conductor's I^2*R loss which can become noticeable in a short antenna. Second, it reduces the amount of inductance you need and therefore for a given Q reduces the amount of inductor loss. I think you'll have trouble getting reasonable Q and therefore reasonably low loss from a small, multilayer air wound coil. You're best off with a single layer air core solenoid or, not quite as good but decent if done with care, a single layer winding on a large type 2 or 6 powdered iron core.

Just remember to protect the inductors to keep water from between the turns. Also, remember that just beyond the inductors the impedance is

pretty high, so keep the part of the antenna beyond the inductors, in particular, away from leaves, branches, and the like, especially if they're wet.

3363. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 06:42:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc21k4$2a8$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72729
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:mns8e1hjfo5vnbdjh0gg3i8bt6topj8iof@4ax.com...
> On Sun, 24 Jul 2005 21:59:40 -0500, Cecil Moore <w5dxp@hotmail.com>
> Gave us:
>
> >Reg Edwards wrote:
> >
> >>>The English are not very spiritual people, so they
> >>>invented cricket to give them some idea of eternity.
> >>>- George Bernard Shaw
> >>
> >> Did George top post or bottom post?
> >
> >Hey Reg, I just got this quote off The Drudgereport web page.
> >
> >" ... (London) senior police officers defended a policy of
> >shooting dead individuals ..."
> >
> >Do the London police really shoot dead people? (Ain't English
> >a hoot?)
>
>
> I'd say the guy was dead around the time of the second round fired,
> so the other three qualify.

==========

What a shocking waste of ammunition! The police officer involved
should be fined with a corresponding deduction from salary.

There will have to be a judicial enquiry. The dead person's family
will sue the London Police for compensation. A report will be issued
in about 18 months time when everybody has forgotten all about it.
The names of the people really responsible for the murder will not be
mentioned of course.

In the meantime, English cricket fixtures and other relics of the
British Empire will continue as usual. But use by Brazilian police of
London policemen as exemplary role models will cease forthwith.

Reg.

3364. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 07:20:50 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <4l49e11ta06ufvo32d94gdhdld71797c0v@4ax.com>
Source record: 72730
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

```
On Mon, 25 Jul 2005 06:42:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> Gave us:

>
>"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
>news:mns8e1hjfo5vnbdjh0gg3i8bt6topj8iof@4ax.com...
>> On Sun, 24 Jul 2005 21:59:40 -0500, Cecil Moore <w5dxp@hotmail.com>
>> Gave us:
>>
>> >Reg Edwards wrote:
>> >
>> >>>The English are not very spiritual people, so they
>> >>>invented cricket to give them some idea of eternity.
>> >>>- George Bernard Shaw
>> >>
>> >> Did George top post or bottom post?
>> >
>> >Hey Reg, I just got this quote off The Drudgereport web page.
>> >
>> >" ... (London) senior police officers defended a policy of
>> >shooting dead individuals ..."
>> >
>> >Do the London police really shoot dead people? (Ain't English
>> >a hoot?)
>>
>>
>> I'd say the guy was dead around the time of the second round fired,
>> so the other three qualify.
>
>====================================
>
>What a shocking waste of ammunition! The police officer involved
>should be fined with a corresponding deduction from salary.
>
>There will have to be a judicial enquiry. The dead person's family
>will sue the London Police for compensation. A report will be issued
>in about 18 months time when everybody has forgotten all about it.
>The names of the people really responsible for the murder will not be
>mentioned of course.
>
>In the meantime, English cricket fixtures and other relics of the
>British Empire will continue as usual. But use by Brazilian police of
>London policemen as exemplary role models will cease forthwith.
```

>---
>Reg.
>

How refreshing it is to see a fine post every now and again...

3365. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 07:23:24 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <kp49e1lnrol48tqr1cof0c8eq2hkeah4i6@4ax.com>
Source record: 72731
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 08:01:54 +0100, Walt Davidson
<g3nyy@despammed.com> Gave us:

>On Mon, 25 Jul 2005 06:42:12 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@ZZZbtinternet.com> wrote:
>
>> But use by Brazilian police of
>>London policemen as exemplary role models will cease forthwith.
>
>But how are they going to solve the Rio "street-kids" problem then?

Give them massive overdoses of Jimmy's special kool-aid?

3366. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 07:28:46 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <j259e1tlu0jkoeldme7k9a7s83dts775k0@4ax.com>
Source record: 72732
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Ed Price wrote:

>Obviously, if you don't take the
>time to distill the OP's comments, then you bury your reply under his
>verbiage. Perhaps one of the best arguments for editing is that you have to
>think about what's important in the previous post. That allows you to focus
>your reply.

What an excellent philosophy.

Perhaps the top-posters and non-editors are merely guilty of lack of
focus and an ability to think.

from
Aero Spike

3367. Design of a 900 Mhz coaxial antenna for GPRS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 08:00:42 UTC
From: Jonas Lonnroth <someone@microsoft.com>
Message-ID: <K_0Fe.29795$d5.182876@newsb.telia.net>
Source record: 72733

In the late eighties, the first handheld mobile phone from Nokia called CityMan 900 had a quarter length antenna stub. As an option, you could by a longer antenna which I believe was a 1,5 WL coaxial dipole. It was fitted with a SMA connector at the end. Anyhow, this antenna worked fine also at the end of a 52 ohm coaxial cable. I used it on a cheap four meter carbon fibre telescopic fishing rod stuck in the ground for hiking when base stations were still rare in the early days of 900 MHz mobile telephony in the Nordic countries. Signals strengths used to be much better with the fishing rod antenna. Results were also better than using a six element 900 MHz yagi hand held 2 meters up.

Recently, a surveyor told me of the problem he and his collegues have in getting a decent signal for the GPRS connection used to get RTK (real time kinematics) correction signals. Field work is often done in difficult terrain where cellular wave propagation is bad close to the ground. Getting up to four meters using my old fishing rod design could help. Only, I have to reinvent the coaxial antenna. Since the cable is ancored at the top of the rod, it doesn't matter that the coax is pliable. A design that gives additional field strength in the horisontal plane over a quarter wave would be preferable (1,25 or1,5 lambda?)

BTW, Sony-Ericsson phones i.a. have the external antenna connector needed.

I'd use a low loss 52 ohm cable with a FME connector at one end. If we assume that the TX band for european GSM is at 914 MHz, what should be the length of the "unbraided" part of the cable - and should the insulator be stripped off?

Regards

Jonas Lonnroth
ex SM5ACM (in the sixties)

3368. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 08:15:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc2730$87j$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72734
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

> But how are they going to solve the Rio "street-kids" problem then?
>
Bring them over here and employ them as arithmetic teachers.

3369. formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 10:28:26 UTC
From: gregB <gbarrell@telstra.com>
Message-ID: <f93Fe.111$oe4.3705@nnrp1.ozemail.com.au>
Source record: 72735

Anyone know the formula (if there is one)for
working out the spacing of the elements
on a UHF TV antenna?

Thanks, Greg

3370. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 10:28:40 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <8of9e1lj6k4g9ilh4b4o87ni71cm7j471a@4ax.com>
Source record: 72736
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 08:15:28 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> Gave us:

>
>> But how are they going to solve the Rio "street-kids" problem then?
>>
>Bring them over here and employ them as arithmetic teachers.
>
The national average would go up at that point, no?

3371. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 11:08:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11e9i2bao9kmu54@corp.supernews.com>
Source record: 72737

Sorry, there isn't one.

Roy Lewallen, W7EL

gregB wrote:
> Anyone know the formula (if there is one)for
> working out the spacing of the elements
> on a UHF TV antenna?
>
> Thanks, Greg

3372. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 11:52:06 UTC
From: gregB <gbarrell@telstra.com>
Message-ID: <Hn4Fe.145$oe4.4370@nnrp1.ozemail.com.au>
Source record: 72738

Roy, thanks for the reply.
So how do they do it?
Greg.

Roy Lewallen wrote:
> Sorry, there isn't one.
>
> Roy Lewallen, W7EL
>
> gregB wrote:
>
>> Anyone know the formula (if there is one)for
>> working out the spacing of the elements
>> on a UHF TV antenna?
>>
>> Thanks, Greg

3373. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 12:56:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc2nip$1dg$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72739

> So how do they do it?
> Greg.
>
==========

Easy!
They just copy somebody else's workmanship.
Very non-critical.
If it looks like an antenna it will work.

3374. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 13:21:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1122297872_27@spool6-east.superfeed.net>
Source record: 72740

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Why you choose to engage in such silly diversions away from simple truths is
>>interesting.
>
> Simultaneously silly and interesting? Your topic and you are the
> first one to take shelter in this veneer of pouts and sulking. I've
> laid out the math, complete, you've both acknowledge it, and then
> claim it was unknown to you.

Richard, you laid out the math mistakenly using the amplitude
reflection coefficient instead of the correct power reflection
coefficient. Please lay out the correct math for us using the
power reflection coefficient (which is a magnitude less than
the amplitude reflection coefficient). We will await your new
corrected results.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3375. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 15:10:13 UTC
From: see sea oh ecks at you aitch see dot comm <spammers@bugger.off.invalid>
Message-ID: <dc2vclqhe1@gabriel.uhc.com>
Source record: 72741
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In uk.radio.amateur Ham op <hamop@comcast.net> wrote:
> I've used the internet since 1985 [DARPA net] and have yet to see the
> 11th commandment prohibiting top posting or forcing bottom posting.
>

Perhaps, but, as I am sure you do know as a veteran user, USENET
preceded the DARPAnet by several years, and, bottom posting has
ALWAYS been the documented, preferred posting method for most
USENET groups, uk.r.a specifically.
--
Chris Cox, N0UK/G4JEC NIC Handle: CC345
If at first you don't succeed, skydiving is not for you.

3376. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 15:42:45 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <jL7Fe.5718$U%6.3360@fe05.lga>
Source record: 72742

Ron Goldstein--KA2IIA wrote:
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had my
> house painted last year, and the painter's ladder got into an argument with the
> antenna a few times, and just about destroyed it. I'm looking for something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> ==========
> Remove the ZZZ from my E-mail address to send me E-mail.

My Gap Titan is of excellent quality and covers 10-80 meters. It is 25
feet tall, can be mounted at ground level or elevated and weighs only
25 pounds.

Good luck, jimbo

3377. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 16:37:47 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <Az8Fe.37$qQ2.453776@news.sisna.com>
Source record: 72745

Reg:

That is a pretty close answer alright. Reverse engineering is a very viable method to produce a good functional antenna!

I have seen charts on optimum spacing between elements, in fractions of a wavelength, charts--plotted against number of elements.

Naturally, since I want one now to show--can't find it, but I think a diligent search will produce one or more such charts on/from the web.

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dc2nip$1dg$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
>> So how do they do it?
>> Greg.
>>
> ==============================
>
> Easy!
> They just copy somebody else's workmanship.
> Very non-critical.
> If it looks like an antenna it will work.
>
>

3378. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 16:43:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XE8Fe.39$hZ2.547957@news.sisna.com>
Source record: 72744
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Well, the computer is not limiting you from rearranging the text so it appears bottom posted for you...

The software is not a limitation from formatting the text so it will appear bottom posted for you...

I guess it is your knowledge and skills which prevent you from having the text appear as you would like...

Obviously, YOU are the best one to remedy that situation...

John

"see sea oh ecks at you aitch see dot comm" <spammers@bugger.off.invalid> wrote in message news:dc2vclqhe1@gabriel.uhc.com...
> In uk.radio.amateur Ham op <hamop@comcast.net> wrote:
>> I've used the internet since 1985 [DARPA net] and have yet to see the
>> 11th commandment prohibiting top posting or forcing bottom posting.
>>
>
> Perhaps, but, as I am sure you do know as a veteran user, USENET
> preceded the DARPAnet by several years, and, bottom posting has
> ALWAYS been the documented, preferred posting method for most
> USENET groups, uk.r.a specifically.
> --
> Chris Cox, N0UK/G4JEC NIC Handle: CC345
> If at first you don't succeed, skydiving is not for you.

3379. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 16:46:08 UTC
From: Charlie <chas@aol.com>
Message-ID: <11ea5slc6pgl5d3@news.supernews.com>
Source record: 72743

Get another 5-BTV

1. http://www.ad5th.com/5-BTV.html

--

Charlie
Deep South 2 Meter SSB Net
www.deepsouthnet.net

"jimbo" <jimbo62@spamex.com> wrote in message
news:jL7Fe.5718$U%6.3360@fe05.lga...
> Ron Goldstein--KA2IIA wrote:
>> Hi All,
>>
>> I have a Hustler 5BTV that finally bit the dust after 25 years. I
>> had my
>> house painted last year, and the painter's ladder got into an argument
>> with the
>> antenna a few times, and just about destroyed it. I'm looking for
>> something that
>> will do at least 80 thru 10--WARC bands would be nice, and if there is
>> one that
>> also covers 160, that would even be nicer. What do you recommend.
>>
>>
>> RON.....KA2IIA
>> ==========
>> Remove the ZZZ from my E-mail address to send me E-mail.
>
> My Gap Titan is of excellent quality and covers 10-80 meters. It is 25
> feet tall, can be mounted at ground level or elevated and weighs only 25
> pounds.
>
> Good luck, jimbo

3380. Re: Recommendations for a Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 17:13:50 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11ea7ehceueepf8@corp.supernews.com>
Source record: 72746

Ron Goldstein--KA2IIA wrote:
> Hi All,
>
> I have a Hustler 5BTV that finally bit the dust after 25 years. I had my
> house painted last year, and the painter's ladder got into an argument with the
> antenna a few times, and just about destroyed it. I'm looking for something that
> will do at least 80 thru 10--WARC bands would be nice, and if there is one that
> also covers 160, that would even be nicer. What do you recommend.
>
>
> RON.....KA2IIA
> ==========
> Remove the ZZZ from my E-mail address to send me E-mail.

GAP Voyager for 160 down.

Butch KF5DE

3381. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 17:23:28 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11ea80jehl45jf5@corp.supernews.com>
Source record: 72747

Large Toroid mounted on the inside back wall of the tuner.

Dave wrote:
> how does the balanced tuner get from the unbalanced output of the amplifier
> and the balanced feedline? is there not a balun in there somewhere anyway?
>
> "greg knapp 5" <gknapp@freshrain.org> wrote in message
> news:wtednatQf9NbQ37fRVn-iQ@speakeasy.net...
>
>>I have decided to erect an 80 meter dipole at 70 feet fed with 450 or 600
>>ohm open wire, for use on ALL HF bands between 80 and 10 meters. Power
>>output will be 1000W CW and 1200W PEP.
>>(1) Which is the better setup and why: a Ten Tec 238B unbalanced tuner
>>with a DX Engineering 1:1 balun on antenna side of tuner OR a Palstar
>>BT1500BAL balanced tuner?
>>(2) Also, if I later decide to erect an inverted L for 160/80, can I use a
>>balanced tuner with a DX Engineering 1:1 balun put on antenna side of
>>tuner, but reversed in direction (converting unbalanced to balanced), or
>>need I get a different tuner?
>>(3) In a perfect world, I'd buy both tuners (one for balanced and one for
>>unbalanced), but I can't afford it. Also, if I go with the unbalanced
>>tuner, will the balun waste a ton of RF in heat and loss?
>>(4) I made a similar post on the Ten Tec List, and received lots of advice
>>on point designs, but not the COMPARISON data I was looking for that will
>>help me make the final decision to go with a balanced tuner vs an
>>unbalanced (with balun) tuner.
>>(5) I have plenty of room, would it make any difference if I put a 160
>>meter dipole instead?
>>Thanks & 73,
>>Greg, N6GK
>>
>
>
>

3382. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 17:32:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e5229c_1@newsfeed.slurp.net>
Source record: 72748

"gregB" <gbarrell@telstra.com>
> Anyone know the formula (if there is one)for
> working out the spacing of the elements
> on a UHF TV antenna?

If any kind of UHF TV antenna can be considered, suggest using a corner reflector, which can have gains ranging from around 11 to 14 dBi across the whole UHF TV band, with low SWR. They are also quite easy to build (but a lot easier to buy).

"Antennas For All Applications" 3rd edition (Kraus & Marhefka) discusses these in detail, including its dimensions in terms or wavelength.

RF

3383. Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:01:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8O9Fe.58$9V2.508040@news.sisna.com>
Source record: 72749

OK, got the tech and general done, here are the questions AND THE ANSWERS:
http://blake.prohosting.com/mailguy2/techtest.txt

http://blake.prohosting.com/mailguy2/generaltest.txt

I will have the extra Q/A as soon as I have enough time to put it together between chores...

John

3384. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:05:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <11e4e$42e52a21$471c636a$26707@ALLTEL.NET>
Source record: 72750
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Hey! we invented the internet, why should we listen to some user across the pond. We took care of you guys once before for your oppressive laws. Need we repeat the lesson?

"see sea oh ecks at you aitch see dot comm" <spammers@bugger.off.invalid>
wrote in message news:dc2vclqhe1@gabriel.uhc.com...
> In uk.radio.amateur Ham op <hamop@comcast.net> wrote:
> > I've used the internet since 1985 [DARPA net] and have yet to see the
> > 11th commandment prohibiting top posting or forcing bottom posting.
> >
>
> Perhaps, but, as I am sure you do know as a veteran user, USENET
> preceded the DARPAnet by several years, and, bottom posting has
> ALWAYS been the documented, preferred posting method for most
> USENET groups, uk.r.a specifically.
> --
> Chris Cox, N0UK/G4JEC NIC Handle: CC345
> If at first you don't succeed, skydiving is not for you.

3385. Raising a 40m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:16:00 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <u%9Fe.19639$Eo.5690@fed1read04>
Source record: 72751

My current antenna is a modified Van Gordon "All Bander".
For reference, the stock antenna is 134' of 14g stranded
bare copper fed with 100' of 450 ohm ladder line. I cut off
half of the ladder line and replaced it with a 12 turn, 5-1/4"
rg58 coil. 20 feet of rg58 goes from the coil into the shack.
I then trimmed the antenna to 7.175 mhz.

The antenna is a flat dipole up 20'. Seems to work OK but
I've got the itch to improve it. The feed point is 12" above
the peak of my roof. I was thinking about installing a 5' tripod
and 2 ten foot masts to elevate the antenna's feed point and
convert it into an inverted V. There will be no need to add to
the feedline.

Ok - now you know the facts - here are the questions:

1) A friend recommended I elevate the feedpoint only to 32'
because (he says) it'll work better at a multiple of a 1/4
wavelength. Is this true?

2) What can I expect in performance improvement at either
32' or 40' off the ground? The house is all wood construction
with an asphalt shingle roof.

Thanks for the help, guys!
--
Just my 2¢... 73 es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

3386. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:36:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11eac9siel7hcb@corp.supernews.com>
Source record: 72752

gregB wrote:
> Roy, thanks for the reply.
> So how do they do it?
> Greg.

Making a decent antenna that works over the very wide bandwidth of the TV UHF band isn't at all trivial. And there's a great big handful of tradeoffs -- gain, front/back ratio, impedance match, physical size, number of elements, sidelobe levels, and bandwidth among them. The UHF TV antennas I've seen are mostly a combination of log periodic, Yagi, and corner reflector types -- something like a few log periodic elements with some parasitic (Yagi) elements and a corner reflector. There *are* some formulas which can be used for pure log periodics and corner reflectors -- you should be able to find them on the web, and a serviceable if not optimum antenna could be made with either or both techniques. You'll have to decide how to best make the tradeoffs for your application. The main difficulty with a corner reflector is making a very broadband driven element.

I imagine that beyond designing a basic log periodic or corner reflector structure, most manufacturers do a bunch of cut and try. These days, I'm sure they use modeling programs for it. I'm also sure that after some years of designing the things, the engineers get a feel for the general effect of certain techniques -- say, how to improve the front/back ratio with the minimal number of added elements. Some of the bigger companies might have developed some optimization software. If they have, it's probably kept as a trade secret.

Roy Lewallen, W7EL

3387. Re: Raising a 40m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:39:16 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <13cab$42e531e2$471c636a$14769@ALLTEL.NET>
Source record: 72753

Had you left it at the original length, and cut the ladderline to 93 feet,
you could have used it at 7.1,3.950, and 21.25
Mine is cut for 90 feet and I switch in lengths of ladder line between 1
foot and 39 feet. All band no tuner antenna.

See http://www.qsl.net/w5dxp/notuner.htm for more info.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:u%9Fe.19639$Eo.5690@fed1read04...
> My current antenna is a modified Van Gordon "All Bander".
> For reference, the stock antenna is 134' of 14g stranded
> bare copper fed with 100' of 450 ohm ladder line. I cut off
> half of the ladder line and replaced it with a 12 turn, 5-1/4"
> rg58 coil. 20 feet of rg58 goes from the coil into the shack.
> I then trimmed the antenna to 7.175 mhz.
>
> The antenna is a flat dipole up 20'. Seems to work OK but
> I've got the itch to improve it. The feed point is 12" above
> the peak of my roof. I was thinking about installing a 5' tripod
> and 2 ten foot masts to elevate the antenna's feed point and
> convert it into an inverted V. There will be no need to add to
> the feedline.
>
> Ok - now you know the facts - here are the questions:
>
> 1) A friend recommended I elevate the feedpoint only to 32'
> because (he says) it'll work better at a multiple of a 1/4
> wavelength. Is this true?
>
> 2) What can I expect in performance improvement at either
> 32' or 40' off the ground? The house is all wood construction
> with an asphalt shingle roof.
>
> Thanks for the help, guys!
> --
> Just my 2¢... 73 es gd dx de Ken KG¢WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>
>

3388. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:40:51 UTC
From: richardharrison@webtv.net
Message-ID: <11036-42E53233-155@storefull-3254.bay.webtv.net>
Source record: 72754

Greg wrote:
"Anyone know the formula (if there is one) for working out the spacing of the elemrnts on a UHF TV antenna?"

It`s a choice, not a formula, because of many tradeoffs.

There are many types of TV antennas For a particular frequency, Kraus shows a Yagi on page 66 of his 3rd edition of "Antennas" which spaces the reflector 1/4-wave behind the driven element, and (4) directors are used ahead of the driven element. Each director is spaced at a distance of WL/pi from its neighbors. This gives 15% bandwidth, plenty for a single TV channel, even for Channel 2 at 50 MHz.

The UHF TV channels extend from about 500 to 800 MHz. 633 MHz would would be the geometric mean frequency. 95 Mhz would be the antenna bandwidth at 633 MHz.

The geometric mean of two numbers is the square root of their product

There are many tradeoffs in TV antenna design. Look at some good book concerning the subject such as "TV and Other Receiving Antennas" by Arnold B. Bailey. Chapter 12 deals with "Practical Aspects of TV Receiving Antennas.

Best regards, Richard Harrison, KB5WZI

3389. Re: Raising a 40m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:43:22 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87ll3uu3p1.fsf@qmc.ph.msstate.edu>
Source record: 72755

>Ok - now you know the facts - here are the questions:
>
>1) A friend recommended I elevate the feedpoint only to 32'
> because (he says) it'll work better at a multiple of a 1/4
> wavelength. Is this true?

NO...doesn't matter.

At the heights you are talking about on 40m (<40'), the higher
the better.

>2) What can I expect in performance improvement at either
> 32' or 40' off the ground? The house is all wood construction
> with an asphalt shingle roof.

Either will be a big improvement over your current 20', but
two 10' masts might not be stable enough without some guying.

Tor
N4OGW

3390. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:46:18 UTC
From: see sea oh ecks at you aitch see dot comm <spammers@bugger.off.invalid>
Message-ID: <dc3c1q$qt7$1@gabriel.uhc.com>
Source record: 72758
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In uk.radio.amateur Fred W4JLE <w4jle@w4jle.com> wrote:
> Hey! we invented the internet, why should we listen to some user across the
> pond. We took care of you guys once before for your oppressive laws. Need we
> repeat the lesson?

Did you not understand my previous message; USENET PREDATES the Internet.
Besides, I am on the western side of the Atlantic, and have been for
nigh on 20 years.
--
Chris Cox, N0UK/G4JEC NIC Handle: CC345
If at first you don't succeed, skydiving is not for you.

3391. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 18:57:17 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87hdeiu31u.fsf@qmc.ph.msstate.edu>
Source record: 72756

>I guess if I never wanted to have any unbalanced antennas in the future, I'd
>go the balanced tuner and be done with it. But if the loss through the 238B
>and DXE Tuner Balun would not be substantially greater than the Balanced
>Tuner, but will permit me to match unbalanced lines too for future antennas,
>then that sure seems the way to go (and adjust the feed line length to best
>match).
>
>What do you all think?
>
>And thanks for you many replies that have brought me this far so far!

My suggestions:

Buy a used Johnson Matchbox for much less than the Palstar. Even the "low
power" Johnson will take a KW. Or if you have the $, get the Palstar.
Use it with a center-fed/ladder line dipole.

Re the inverted L: you are making it much too hard! Just put up a 160/80
inverted-L and feed it directly with coax. There is no need for a tuner
for this antenna (unless maybe you want to cover both CW and SSB on 80).
A separate 80m element can just be paralleled to the 160 wire, like a
"fan dipole". Put down lots of radials. To match the lower impedance on
160, just use a hairpin coil at the feedpoint.

Tor
N4OGW

3392. The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 19:08:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eu8ae15jscn528qdpjjsameoqp25v9282m@4ax.com>
Source record: 72757

Now we venture to new materials, and in this case a solar cell,
described in text as:

1w | 1/4WL |
laser-----air-----|---thin-film---|---Germanium---...
1st medium | 2nd medium | 3rd medium
n = 1.0 n = 2 n = 4.04

where the second medium might be Arsenic trisulfide glass or Lanthanum
flint glass.

When you take the intensity times the area for both the reflected and
refracted beams, the total energy flux must equal that in the incident
beam. That equation appears as:
(rï¿½ + (tï¿½ ï¿½ n2ï¿½ ï¿½ cos(theta-t) / n1ï¿½ ï¿½ cos(theta-i))) = 1

It stands to reason that this can be quickly reduced without need to
use transcendentals for an angle of incidence of 0ï¿½ (which results in
a refractive angle of 0ï¿½). All that needs to be known are the
coefficients which for that same angle simplify to
r = 0.667 a value that is the limit of an asymptote;
it is also invested with either a + or - sign depending
upon the polarization (another issue that was discarded
in the original discussion as more unknown than immaterial)
t = 0.667. a value that is the limit of an asymptote;
here, too, there are polarization issues we will discard as
before. All this discarding comes only by virtue of squaring:
rï¿½ = 0.445
tï¿½ = 0.445
I presume that the remainder of the math can be agreed to exhibit:
that part of the energy reflected amounts to 11%
or otherwise expressed as:
110mW
and
that part of the energy transmitted amounts to 89%
or otherwise expressed as:
890mW

It follows that at the second boundary there is less power available
due to the conservation of power observed at the first boundary. They
exhibit these results, by percentages:
that part of the energy reflected amounts to 11%
or otherwise expressed as:
98mW
and
that part of the energy transmitted amounts to 89%

or otherwise expressed as:
792mW

Needless to say, that same first interface is going to conserve energy by the total of refraction and reflection being equal to the energy incident upon it. I will skip that to allow ALL of this second reflection to "try" to totally cancel the first reflection:
110mW - 92mW
or
18mW

But how does this "perfect" result fare in the real world where this 1W laser has an un-cancelled reflection remainder? How does it fare in an application to reduce reflections that the Solar Cell is sensitive to?

A laser of this power will have a beam size on the order of 1mmï¿½. I typically describe the available power from the sun as being 1000W/Mï¿½. This laser then would, in terms of W/Mï¿½, be quite powerful at 1,000,000W/Mï¿½. This is more than 1000 times more power than the sun's exposure to the same target.

However, the sun does not radiate one wavelength of energy. So, if we were to reduce the amount of sunlight confined to that in the Lased BW at its operating wavelength; then let's consider that the sun's power is in a BW of 2000nM and we are talking about (and I will be MOST generous to offer an absurdly wide) Lased BW of 20nM. It follows that the Lased power is thus 100,000 times brighter than the sun in the same BW for the same wavelength. But this still neglects that the sun's power is not evenly distributed throughout this 2000nM BW.

I am not going to pencil whip this further. Let's simply return to that un-cancelled power and look at it instead:
18mW
in that same 1mmï¿½, which if we cast to the same terms of comparison to sunlight it becomes 18000W/Mï¿½ which is 18 TIMES THE POWER OF THE SUN's total BW emission. As you may guess I am going to use the same BW correction to find that the un-cancelled reflection products have 1800 TIMES MORE POWER THAN THE SUN!

73's
Richard Clark, KB7QHC

3393. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 19:15:26 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <mTaFe.64$8_4.1216621@news.sisna.com>
Source record: 72759
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Yeah, usenet predates the internet! Because we invented its' predecessors too, and were forced to use telnet to SMTP and NNTP until we developed decent newsreaders. And, all your bellyaching can end when you adopt and begin using one of those decent newsreaders!

If you are still having problems, have you considered having your mother assist you?

John

"see sea oh ecks at you aitch see dot comm" <spammers@bugger.off.invalid> wrote in message news:dc3c1q$qt7$1@gabriel.uhc.com...
> In uk.radio.amateur Fred W4JLE <w4jle@w4jle.com> wrote:
>> Hey! we invented the internet, why should we listen to some user across the
>> pond. We took care of you guys once before for your oppressive laws. Need we
>> repeat the lesson?
>
> Did you not understand my previous message; USENET PREDATES the Internet.
> Besides, I am on the western side of the Atlantic, and have been for
> nigh on 20 years.
> --
> Chris Cox, N0UK/G4JEC NIC Handle: CC345
> If at first you don't succeed, skydiving is not for you.

3394. Re: Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 19:38:01 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns969E8083381A1spectrumhogstarbandn@207.106.92.175>
Source record: 72760

>
> Just about any inductor will withstand the power level, so your
> tradeoffs are among size, weight, expense, weather resistance, and
> loss. The higher the inductor Q, the lower the loss. But to get the
> maximum Q you need a large, air wound inductor that stays dry -- any
> water between turns of any kind of inductor will spoil the Q. I've
> made an antenna similar to the one you describe (but half the size,
> for 40 meters) with reasonably low loss using two large powdered iron
> cores for loading at the feedpoint. It was conveniently matched by
> link coupling to the cores which of course you won't be able to do if
> the loads are away from the feedpoint. If you can tolerate the size
> and/or weight, the use of multiple conductors -- fanned or parallel
> --, or (not as good) a single large diameter conductor will reduce the
> loss two ways. First, it reduces the conductor's I^2*R loss which can
> become noticeable in a short antenna. Second, it reduces the amount of
> inductance you need and therefore for a given Q reduces the amount of
> inductor loss. I think you'll have trouble getting reasonable Q and
> therefore reasonably low loss from a small, multilayer air wound coil.
> You're best off with a single layer air core solenoid or, not quite as
> good but decent if done with care, a single layer winding on a large
> type 2 or 6 powdered iron core.
>
> Just remember to protect the inductors to keep water from between the
> turns. Also, remember that just beyond the inductors the impedance is
> pretty high, so keep the part of the antenna beyond the inductors, in
> particular, away from leaves, branches, and the like, especially if
> they're wet.
>

Thanks, Roy. Since my antenna will be very portable, with a
collapsable fibreglass mast I can't take much weight, ergo, the need for
small wire, and light weight inductors. However, it appears I would be
better off with feedpoint inductors instead of putting them halfway out
the legs of the dipole. I will plan on doing that, and will look into
using iron core inductors instead of air wound.... if I can keep it light
enough. (the mast sags under any appreciable weight). Thanks again.

Ed K7AAT

3395. Re: Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 19:38:32 UTC
From: richardharrison@webtv.net
Message-ID: <19855-42E53FB8-1003@storefull-3255.bay.webtv.net>
Source record: 72761

Ed, K7AAT wrote:
"I plan on building a short dipole (inverted V) for traveling in my tiny RV. It will be designed for 75M."

A 70 microhenry, or any inductor, is lossy. Why not make the RV part of a small loop which can be tuned with a low-loss capacitor?

My father-in-law was W1DBM, now SK (born 6-6-6) who did the RV thing and ham radio most of his life. He found his Airstream loop was 15 to 32 dB better than a trailer dipole or whip.

W1DBM`s loop appears in a 1978 ARRL "Antenna Anthology"

Best regards, Richard Harrison, KB5WZI

3396. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 19:43:14 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <cqfae199khqkaq79t3ep5vv51m9kaudfu8@4ax.com>
Source record: 72762

On Sun, 24 Jul 2005 17:54:58 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>
>I guess that is what MY REAL QUESTION boils down to...although I like the
>"single resonant" L-type Ten Tec 238 unbalanced tuner (and it would work
>great with my future inverted L), it needs a balun to match it to the open
>wire feed. Will the balun, at HIGH SWRs, just burn up my watts in heat and
>smoke?

My MFJ 989C matches an 80 meter dipole with ladderline on all bands
between 80 and 10. There is no smoke, no heat. With this antenna, I
use the standard balun built into the tuner. Other times, I've used
external chokes, either coiled coax or w2du type baluns. I'd recommend
a standard unbalanced T-circuit type tuner, for as much money as you
can afford. It'll do fine for a whole range of feeds, balanced or
otherwise.

bob
k5qwg

3397. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 20:43:18 UTC
From: richardharrison@webtv.net
Message-ID: <19857-42E54EE6-67@storefull-3255.bay.webtv.net>
Source record: 72764

Phil wrote:
"If not, what other homebrew antenna will be fine for the purpose?"

I believe Walter Maxwell, W2DU, while working with RCA`s satellite program, designed quadrafilar helix antennas to communicate with the birds. Look at their pattern on page 765 of Kraus` 3rd edition of "Antennas", then compare with patterns shown on pages 763 and 764. The advantage is clear.

Best regards, Richard Harrison, KB5WZI

3398. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 20:52:44 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndeak8s.1vpi.ben@saturn.home.ben.com>
Source record: 72763

On 2005-07-25, John Smith <assemblywizard@gmail.com> wrote:
> OK, got the tech and general done, here are the questions AND THE ANSWERS:
> http://blake.prohosting.com/mailguy2/techtest.txt
>
> http://blake.prohosting.com/mailguy2/generaltest.txt

You can download them from the ARRL (questions and answers). When I was
studying I made a perl script that would either quiz you or filter out
the wrong answers.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

3399. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 21:18:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <PGcFe.80$Px6.2752568@news.sisna.com>
Source record: 72767

Uhhh, Ben:

I took the liberty of removing all the false answers.

Take a closer look, my "study guide" ONLY contains the correct answers...

John

"Ben Jackson" <ben@ben.com> wrote in message
news:slrndeak8s.1vpi.ben@saturn.home.ben.com...
> On 2005-07-25, John Smith <assemblywizard@gmail.com> wrote:
>> OK, got the tech and general done, here are the questions AND THE ANSWERS:
>> http://blake.prohosting.com/mailguy2/techtest.txt
>>
>> http://blake.prohosting.com/mailguy2/generaltest.txt
>
> You can download them from the ARRL (questions and answers). When I was
> studying I made a perl script that would either quiz you or filter out
> the wrong answers.
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

3400. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 21:35:36 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <IWcFe.9188$bT4.6209@newsfe1-gui.ntli.net>
Source record: 72765
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Bidness wrote:
>
> Placing your answer in front of the text you are replying to IS
> backwards, ass.
>
and how does that differ from top posting?

> snip
>
>
>>YAWN! Another 12 year old who thinks he pioneered the universe.
>
>
> You act as if you haven't been in Usenet more than two months, and
> then act as if you are a twelve year old adolescent twit when you
> decide that long accepted standards no longer apply, or do not apply
> to you. Get a clue, dumbass.
So you don't dispute my estimate of your age; did I over-estimate?
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3401. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 21:39:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ean0sppmmvs5d@corp.supernews.com>
Source record: 72766

Richard Harrison wrote:
> Phil wrote:
> "If not, what other homebrew antenna will be fine for the purpose?"
>
> I believe Walter Maxwell, W2DU, while working with RCA`s satellite
> program, designed quadrafilar helix antennas to communicate with the
> birds. Look at their pattern on page 765 of Kraus` 3rd edition of
> "Antennas", then compare with patterns shown on pages 763 and 764. The
> advantage is clear.
>
> Best regards, Richard Harrison, KB5WZI

Because one of the very important functions of a TV antenna is to reduce multi-path interference causing fading and ghosting, directionality is essential. The quadrifilar helix I'm familiar with is a normal-mode helix; that is, the maximum radiation or reception is broadside to the helix, and it has an omnidirectional horizontal pattern when the axis is vertical. That would be a poor choice for a TV antenna. You might, though, consider an axial mode helix. That's one which has maximum radiation or reception in the direction of the helix axis. I don't have any direct experience with them, but believe they can be made fairly broadbanded. It might be pretty large and cumbersome, though. You should be able to find design data on the web for an axial mode helix.

Sorry, I don't have the third edition of Kraus yet. Is there really a fairly directional quadrifilar helix in it? In the second edition, the quadrifilar helix is described as a normal mode helix, which is my experience, and the pattern shown in the book of a conventional normal mode helix resembles that of a dipole as it should. Quadrifilar helices are commonly used for GPS receivers, where an omnidirectional pattern is desirable.

By the way, I finally got a copy of Bailey -- I came across a copy the other day at Powell's Technical Bookstore, for $15!

Roy Lewallen, W7EL

3402. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:11:45 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <proae11ri2h0e07sv56jh7m7h4jruo2581@4ax.com>
Source record: 72768
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 09:43:23 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Well, the computer is not limiting you from rearranging the text so it appears bottom posted for you...
>
>The software is not a limitation from formatting the text so it will appear bottom posted for you...
>
>I guess it is your knowledge and skills which prevent you from having the text appear as you would like...
>
>Obviously, YOU are the best one to remedy that situation...
>
>John

Hey, dumbass. There is also ANOTHER standard in Usenet. It is line
length.

How can you claim to have been in these forums for so long, and yet
be so utterly stupid regarding its use?

72 character line length dipshit. Yet another tragic fallacy of
Outhouse Express, and the idiots that use it, and tout it to be a
viable news client.

3403. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:17:07 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <v7pae1dlacg96qdcab4aab4o15ofavdmh6@4ax.com>
Source record: 72769
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 12:15:26 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Yeah, usenet predates the internet! Because we invented its' predecessors too, and were forced to use telnet to SMTP and NNTP until we developed decent newsreaders. And, all your bellyaching can end when you adopt and begin using one of those decent newsreaders!
>
>If you are still having problems, have you considered having your mother assist you?
>
>John

How in the world can some twit that claims to have been here for so
long be so retarded as to not know about line length limiting?

3404. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:19:10 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <7apae1lbrjhvgs1ujhsk13pfo06c7i3j0q@4ax.com>
Source record: 72770
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 21:35:36 GMT, Frank Turner-Smith G3VKI
<g3vki@turner-smith.co.uk> Gave us:

>NunYa Bidness wrote:
>>
>> Placing your answer in front of the text you are replying to IS
>> backwards, ass.
>>
>and how does that differ from top posting?

Exactly. D'oh!

Remember, I am one that against top posting. Sheesh!
>
>> snip
>>
>>
>>>YAWN! Another 12 year old who thinks he pioneered the universe.
>>
>>
>> You act as if you haven't been in Usenet more than two months, and
>> then act as if you are a twelve year old adolescent twit when you
>> decide that long accepted standards no longer apply, or do not apply
>> to you. Get a clue, dumbass.
>So you don't dispute my estimate of your age; did I over-estimate?

You're an idiot, and a troll at this point.

3405. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:23:58 UTC
From: jgboyles@aol.com
Message-ID: <1122330238.454905.75640@z14g2000cwz.googlegroups.com>
Source record: 72771

John, Why did you go to all that trouble? The test is so easy now a "Cave Man" could pass them. Don't insult us like Gieco does Auto insurance.
Gary N45AST

3406. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:31:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2LdFe.92$Ja7.3901597@news.sisna.com>
Source record: 72772

jqboyles:

I am afraid some hams may be correct--the CB'ers are all in mental wards drooling over themselves and won't be able to pass without my assistance...

... they need not fret, old johnny boy will look out for 'em!

John

<jgboyles@aol.com> wrote in message
news:1122330238.454905.75640@z14g2000cwz.googlegroups.com...
> John, Why did you go to all that trouble? The test is so easy now a
> "Cave Man" could pass them. Don't insult us like Gieco does Auto
> insurance.
> Gary N45AST
>

3407. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:35:51 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <hPdFe.94$FC7.4032627@news.sisna.com>
Source record: 72773
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa BumArse:

The decent newsreader (yes, there are good GUI linux versions and linux will run on a macintosh) will cure all your problems...

I'd almost be certain at this point you are running a Macintosh... if so, you will need a whole new IBM/clone and not just a newsreader--well, to have a decent setup anyway...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:proae11ri2h0e07sv56jh7m7h4jruo2581@4ax.com...
> On Mon, 25 Jul 2005 09:43:23 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Well, the computer is not limiting you from rearranging the text so it appears bottom posted for you...
>>
>>The software is not a limitation from formatting the text so it will appear bottom posted for you...
>>
>>I guess it is your knowledge and skills which prevent you from having the text appear as you would like...
>>
>>Obviously, YOU are the best one to remedy that situation...
>>
>>John
>
> Hey, dumbass. There is also ANOTHER standard in Usenet. It is line
> length.
>
> How can you claim to have been in these forums for so long, and yet
> be so utterly stupid regarding its use?
>
> 72 character line length dipshit. Yet another tragic fallacy of
> Outhouse Express, and the idiots that use it, and tout it to be a
> viable news client.

3408. Re: The CFA de-bagged

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:38:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5SdFe.95$a67.3778674@news.sisna.com>
Source record: 72774
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

... as I have suggested, a proper newsreader which knows about "word wrap" and you will see my text just fine (hard coding an expected line length into a newsreader, or any other text app/utility is just bad programming on the part of the coders)...

... you swim against the current when you resist the new developments in technology...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:v7pae1dlacg96qdcab4aab4o15ofavdmh6@4ax.com...
> On Mon, 25 Jul 2005 12:15:26 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Yeah, usenet predates the internet! Because we invented its' predecessors too, and were forced to use telnet to SMTP and NNTP until we developed decent newsreaders. And, all your bellyaching can end when you adopt and begin using one of those decent newsreaders!
>>
>>If you are still having problems, have you considered having your mother assist you?
>>
>>John
>
> How in the world can some twit that claims to have been here for so
> long be so retarded as to not know about line length limiting?

3409. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-25 22:56:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11eargq80o2fe96@corp.supernews.com>
Source record: 72675

Arrgh! I confused this thread with a recent one asking about UHF TV antennas. My response wasn't at all appropriate to this discussion.

I agree completely with Richard Harrison, a quadrifilar helix is probably a good choice for this application.

I sincerely apologize to Richard and other readers for my carelessness and mistake.

Roy Lewallen, W7EL

Roy Lewallen wrote:
>
> Because one of the very important functions of a TV antenna is to reduce
> multi-path interference causing fading and ghosting, directionality is
> essential. The quadrifilar helix I'm familiar with is a normal-mode
> helix; that is, the maximum radiation or reception is broadside to the
> helix, and it has an omnidirectional horizontal pattern when the axis is
> vertical. That would be a poor choice for a TV antenna. . .

3410. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 00:57:16 UTC
From: richardharrison@webtv.net
Message-ID: <11036-42E58A6C-179@storefull-3254.bay.webtv.net>
Source record: 72676

Roy Lewallen, W7EL wrote:
"Because one of the very important functions of TV antennas is to introduce multipath interference causing fading and ghosting, directionality is essential."

Yes indeed! In an urban invironment that is especially important. I`ve fought the battle to suppress ghosting and smearing. But, my signal sources were nearly horizontal and they reflected like billiard balls from every reflective object they encountered. Reflections were often in the horizontal plane same as the incident signal.

I would think that shortly after a satellite makes it above the horizon, the incudent wave`s reflected signals would be headed skyward and be unlikely to cause much trouble at the receiver. The quadrafilar helix pattern appears something like a mushroom.

Roy also wrote:
"Sorry, I don`t have the 3rd edition of Kraus yet."

I only recently got it. Now I think it is unfortunate I didn`t have it on order before it was released. It is crammed with good stuff.

Roy also wrote:
"By the way, I finally got a copy of Bailey ---I came across a copy the other day at Powell`s Technical Bookstore for $15 ! "

Congratulations! Hope you enjoy it as much as I. His catalog pf various antennas is without par. His theory is systematic and concise. He must have been a tremendous asset at Bell Labs.

Best regards, Richard Harrison, KB5WZI

3411. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 01:27:44 UTC
From: richardharrison@webtv.net
Message-ID: <11036-42E59190-180@storefull-3254.bay.webtv.net>
Source record: 72677

Roy Lewallen, W7EL wrote:
"I confused this thread with a recent one asking about UHF TV antennas."

I understand. My strugle with TV reflections involved antennas atop the corporate headquarters. We had to have a perfect color picture in the executive lounge and there was no cable yet. The founder, chairmman and CEO was proud of his luxury and toys. We had a lot of signal, but too many signals due to other skyscrapers around ours. With sharp enough antennas we were able to clean up the mess. Better a hero than a goat!

I think I was very lucky today. I had typed the previous posting and was about to hit the send button when the electric power failed. I was sure it would mean retyping. However, when power was restored, I wert to the archive and found it in storage. Hooray!

Best regards, Richard Harrison, KB5WZI

3412. Re: Warning - N9NLU (Dave Schmidt)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 02:13:53 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <B%gFe.17141$aY6.12431@newsread1.news.atl.earthlink.net>
Source record: 72678

He was on multiple out of town trips. The coax is on the way. He was just
busy...

Doug N4IJ

"Kingfish Stevens" <nospam@nospam.net> wrote in message
news:3htgd1laqd04dgnopn5nebtahe9lkjjsft@4ax.com...
>I have dealt with him before with no problems, so this surprises me.
> But, if you used a Postal money order, then he has committed mail
> fraud, something that can get you snatched back into reality damn
> fast.
> Kingfish
>
> On Sat, 16 Jul 2005 01:17:23 GMT, "DOUGLAS SNOWDEN"
> <SNOWDEN@peoplepc.com> wrote:
>
>>Just a warning to beware of dealing with N9NLU. He promised me 175 ft of
>>RG-11 coax and I sent him a money order for it. He acknowledged receiving
>>the money but has not sent the coax. This all occurred over a month and a
>>half ago. He does not respond to E-mail.
>>
>>I have not given up on him yet, but told him I would put out this warning.
>>
>>Doug, N4IJ
>>
>

3413. Re: formula for UHF element spacing.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 02:21:51 UTC
From: gregB <gbarrell@telstra.com>
Message-ID: <57hFe.64$ki5.1106@nnrp1.ozemail.com.au>
Source record: 72679

Thanks all, appreciate the info.
Greg.

Richard Harrison wrote:
> Greg wrote:
> "Anyone know the formula (if there is one) for working out the spacing
> of the elemrnts on a UHF TV antenna?"
>
> It`s a choice, not a formula, because of many tradeoffs.
>
> There are many types of TV antennas For a particular frequency, Kraus
> shows a Yagi on page 66 of his 3rd edition of "Antennas" which spaces
> the reflector 1/4-wave behind the driven element, and (4) directors are
> used ahead of the driven element. Each director is spaced at a distance
> of WL/pi from its neighbors. This gives 15% bandwidth, plenty for a
> single TV channel, even for Channel 2 at 50 MHz.
>
> The UHF TV channels extend from about 500 to 800 MHz. 633 MHz would
> would be the geometric mean frequency. 95 Mhz would be the antenna
> bandwidth at 633 MHz.
>
> The geometric mean of two numbers is the square root of their product
>
> There are many tradeoffs in TV antenna design. Look at some good book
> concerning the subject such as "TV and Other Receiving Antennas" by
> Arnold B. Bailey. Chapter 12 deals with "Practical Aspects of TV
> Receiving Antennas.
>
> Best regards, Richard Harrison, KB5WZI
>

3414. Re: Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 03:10:13 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns969ECD302F07spectrumhogstarbandn@207.106.93.175>
Source record: 72681

>> "I plan on building a short dipole (inverted V) for traveling in my
tiny
>> RV. It will be designed for 75M."

> A 70 microhenry, or any inductor, is lossy. Why not make the RV part of
> a small loop which can be tuned with a low-loss capacitor?
>
> My father-in-law was W1DBM, now SK (born 6-6-6) who did the RV thing
and
> ham radio most of his life. He found his Airstream loop was 15 to 32 dB
> better than a trailer dipole or whip.
>
> W1DBM`s loop appears in a 1978 ARRL "Antenna Anthology"
>
> Best regards, Richard Harrison, KB5WZI

I'll have to look that up, but I don't think a loop is a viable
option. For one thing, my trailer is only 17' long body. Plus, there is
no way I can get on the roof of this small trailer without dragging
around a ladder. Also, I expect to want to use this antenna when the
trailer is not available, such as possible tent camping.

Thanks for the input, though.

Ed K7AAT

3415. WTB Cushcraft X940 40m Add On or equivalent

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 03:11:42 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <42E5A9F4.A3D21DEE@rickfrazier.com>
Source record: 72680

I've got a Cushcraft X-9 beam that is going back up on the tower in a few months, and am looking for an X940 40 meter dipole add on kit....

Alternately, if nobody has one of these squirreled away, what other options do I have for getting 40 meters on the tower without killing the performance of the X9 beam? I can probably put a 40 meter dipole above the beam if I need to, and would imagine I'd need to run it parallel to the boom of the X-9 to avoid coupling to it... A second coax to feed it wouldn't be out of the question (or a reason to mount a multiport switch I have up there). The rub is that the dipole probably couldn't be much more than 8 feet above the X-9 beam, so I'm not sure what that would do to either the dipole or beam...

Thanks
--Rick AH7H

3416. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 03:29:37 UTC
From: W5DXP <w5dxp@hotmail.com>
Message-ID: <1122348577.686628.222430@g49g2000cwa.googlegroups.com>
Source record: 72682

Richard Clark wrote:

Richard's following example is similar to a Z0-matched lossless
transmission line example.

1/4WL
1w XMTR---50 ohm ---+---100 ohm---+---200 ohm---+-200 ohm load
feedline feedline feedline
Pfor=1w Pfor=1.125w Pfor=1w
Pref=0w Pref=0.125w Pref=0w

Anyone capable of solving transmission line problems can verify the
above values which are the same as the values in Richard's example
although he doesn't realize it yet.

> Now we venture to new materials, and in this case a solar cell,
> described in text as:

Richard, you failed to admit your errors on the previous example
and failed to appologize to me for all your insults. Now you
present yet another example before the first one was resolved.
And this example contains many of the errors that you made in
the earlier one. It's probably time to shut off your output
and engage in a little input before you embarrass yourself
any farther.

> 1w | 1/4WL |
> laser-----air-----|---thin-film---|---Germanium---...
> 1st medium | 2nd medium | 3rd medium
> n = 1.0 n = 2 n = 4.04
>
> where the second medium might be Arsenic trisulfide glass or Lanthanum
> flint glass.
>
> When you take the intensity times the area for both the reflected and
> refracted beams, the total energy flux must equal that in the incident
> beam. That equation appears as:
> $(r^2 + (t^2 \cdot n2^2 \cdot \cos(\text{theta-t}) / n1^2 \cdot \cos(\text{theta-i}))) = 1$
>
> It stands to reason that this can be quickly reduced without need to
> use transcendentals for an angle of incidence of 0° (which results in
> a refractive angle of 0°). All that needs to be known are the
> coefficients which for that same angle simplify to
> r = 0.667 a value that is the limit of an asymptote;
> it is also invested with either a + or - sign depending

> upon the polarization (another issue that was discarded
> in the original discussion as more unknown than immaterial)

Uhhhhh Richard, the amplitude reflection coefficient, r, is:

r = (nt-ni)/(nt+ni) = (2-1)/(2+1) = 0.3333 = (4-2)/(4+2)

You are never going to get it right as long as you cannot even
calculate the reflection coefficient.

> r² = 0.445

Wrong again! r^2 = Reflectance, R = (0.3333)^2 = 0.1111
or 11.11%

> t² = 0.445

t^2 doesn't matter. The Transmittance, T = (1-R) = 0.8889
or 88.89%

> I presume that the remainder of the math can be agreed to exhibit:
> that part of the energy reflected amounts to 11%
> or otherwise expressed as:
> 110mW

That's correct but doesn't agree with your r^2 value. Let's say
11.11% or 111.1mW for four digit accuracy.

> and
> that part of the energy transmitted amounts to 89%
> or otherwise expressed as:
> 890mW

Let's say 88.89% or 888.9mW for four digit accuracy.

> It follows that at the second boundary there is less power available
> due to the conservation of power observed at the first boundary. They
> exhibit these results, by percentages:
> that part of the energy reflected amounts to 11%
> or otherwise expressed as:
> 98mW
> and
> that part of the energy transmitted amounts to 89%
> or otherwise expressed as:
> 792mW

You are ignoring the wave cancellation energy and getting the
wrong answers. You have proved my point better than I ever could
have.

The first internal reflection is 888.9mW*0.1111 = 98.76mW. When
that first internal reflection encounters Medium 1, 87.78mW will
be transmitted through to Medium 1. It is 180 degrees out of phase
with the first internal reflection so the two waves will start to
cancel. Thus 2*87.78 = 175.56mW will join the forward wave in

Medium 2. Even after this first re-reflection event, the forward
power in Medium 2 will be 1064.5mW on its way to 1125mW during
steady-state. It is readily apparent that you simply don't know
how to perform this analysis either during the transient state
or steady-state.

The steady-state values are easily known and yours are wrong. Have
you never solved a problem like this before?

> Needless to say, that same first interface is going to conserve energy
> by the total of refraction and reflection being equal to the energy
> incident upon it. I will skip that to allow ALL of this second
> reflection to "try" to totally cancel the first reflection:
> 110mW - 92mW
> or
> 18mW

You calculations are once again wrong. When you add up all the infinite

number of reflections and re-reflections, you will find that the sum of

all the internal transmissions into Medium 1 indeed does equal 111.1mw
thus totally canceling all of the reflections. Assuming a lossless
system, there will be one watt delivered into medium 3. The incident
power necessary for that event is 1w/0.8889 = 1.125w. All reflections
from the thin-film are canceled. Here are all the steady-state powers
calculated for you:

> 1w | 1/4WL |
> laser-----air-----|---thin-film---|---Germanium---...
> 1st medium | 2nd medium | 3rd medium
> n = 1.0 n = 2.0 n = 4.0
Pfor=1w Pfor=1.125w Pfor=1w
Pref=0w Pref=0.125w Pref=0w

Note that T*Pref2 = 0.8889*0.125 = 111.1mW, exactly the amount of
energy required to cancel the initial external reflection of 111.1mW.

In the 2nd medium, P1=888.9mW, P2=Pref2*R = 125mW*0.1111 = 13.89mW
P1 + P2 + 2*sqrt(P1*P2) = 888.9 + 13.89 + 222.2 = 1125mW

Hecht's equations are correct after all. What you have proven is that
when
you ignore the interference energy, you will get the wrong answer.
--
73, Cecil http://www.qsl.net/w5dxp

3417. Re: Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 03:55:37 UTC
From: nm5k@wt.net
Message-ID: <1122350137.465531.47800@z14g2000cwz.googlegroups.com>
Source record: 72683

However, it appears I would be
better off with feedpoint inductors instead of putting them halfway out
the legs of the dipole.

Myself, I would prefer them out at 1/2 or even 2/3 from the center.
Better current distribution. What will the antenna be made from?
Wire, or metal tubing? Regular solenoid coils can be made from
any light plastic tube, using light wire. I use insulated wire to act
as a spacer. I then cover them with shrink wrap, or tape.
If the antenna is hard to match to coax, you can use a third coil
at the feedpoint, and tap it for the best match.
If the antenna was tubing, I would use wooden dowel that would
fit in between a section of metal tubing, and wind the coils on those.
I'd weatherproof those some way also.
When I make small loaded dipoles, I think exactly the same way as
I would designing a mobile whip. I'd make the most efficient design
of a 24 ft whip, IE: coil placement, etc, and just double it for a
dipole.
Whats best for a short whip, will also be best for a short dipole
of the same size per leg. The very best location is probably at
the 2/3 to 3/4 mark, but it's not that critical. Even 1/2 out is good.
Reg's vertload can model all that, and tell you the best place, coil
info, etc, etc... In comparing to the real world, it's close nuff for
gov
work. If the apex was high, even a center load could be ok, but if
you only have 5 watts, I would go for every last scrap of efficiency
in the design. Actually, I'd also carry a spare 120 ft of wire to use
as
a full size dipole in the off chance the location could support it. :/
Many would, if they have trees to hang wires from, etc.. Even if the
full dipole is perverted, and making turns, a "Z",etc, it will usually
outdo
the loaded antenna for 75m.
MK

3418. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 10:10:48 UTC
From: philnyc <philnyc22@hotmail.com>
Message-ID: <1122372647.984318.318830@f14g2000cwb.googlegroups.com>
Source record: 72684

This is it ! http://members.aol.com/k5oe/ The Eggbeater2 guys, I think ?

. After reading Gerald's information on how to construct this antenna I was left unclear about the dimensions table and all the digits shown there.

1) What do they stand for, and how to apply them in the construcion of the antenna ?

And another thing:

Is there any spacing between the loops when they cross eachother on top and on the bottom ?

How about the reflectors, they must be spaced out if they cross eachother inside the boom ? How much is the space ?

Thank you very much again.

Phil

3419. Re: Balanced vs. Unbalanced Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 11:26:07 UTC
From: Terry O'Neill <rfmscpa@earthlink.net>
Message-ID: <j5pFe.8508$dU3.4575@newsread2.news.pas.earthlink.net>
Source record: 72685

Just a note:

With a link-coupled tuner you can use either a balanced line (ladder line, tv twin-lead) fed antenna or a coax fed antenna. It handles either equally well.

Used Johnson Matchboxes are still fairly common on ebay in the $100 price range. I use mine for all bands 80-10. If you want to roll your own link coupled tuner see:
http://www.amfone.net/ECSound/K1JJ13.htm

3420. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 12:55:16 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e63314_5@newsfeed.slurp.net>
Source record: 72686

"Richard Harrison"
>I understand. My strugle with TV reflections involved antennas atop the
>corporate headquarters. We had to have a perfect color picture in the
>executive lounge and there was no cable yet. The founder, chairmman and
>CEO was proud of his luxury and toys. We had a lot of signal, but too
>many signals due to other skyscrapers around ours. With sharp enough
>antennas we were able to clean up the mess. Better a hero than a goat!

Here's another war story. Many Chicago TV stations moved to the new Hancock Bldg to use one of the RCA antennas that were stacked there on two masts. When one of the big network O&O stations flipped the switch to start using this new site, the on-air picture at their studio turned to absolute garbage, right in front of all the executive staff gathered in a boardroom to celebrate. The studio was located about four blocks from the Hancock Bldg, and close to the null in the elevation pattern of the new 2-bay antenna they had switched to. Most of the RF they could pick up was from reflections. I think they finally installed a very high gain antenna skewed upward up at a large elevation angle focused at the top of the Hancock Bldg, but the best picture they got was never very good.

RF (RCA field supervisor during the installation
and commissioning of the TV antenna systems)

3421. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 13:24:20 UTC
From: W5DXP <w5dxp@hotmail.com>
Message-ID: <1122384260.192220.309430@g44g2000cwa.googlegroups.com>
Source record: 72687

Richard Clark wrote:
> Needless to say, that same first interface is going to conserve energy
> by the total of refraction and reflection being equal to the energy
> incident upon it. I will skip that to allow ALL of this second
> reflection to "try" to totally cancel the first reflection:
> 110mW - 92mW
> or
> 18mW

Richard, if you follow the leads of other gurus on this newsgroup,
you will 'ploink' me, never admit a mistake, and dupe yourself
into believing that you were right all along. Your "Extreme Failures
of Poor Concepts" could have been avoided if you guys had just read and

understood the following two quotes that I have posted multiple times.
What is it about, "... all 'lost' reflected intensity will appear as
enhanced intensity in the transmitted beam.", that you guys don't
understand?

www.mellesgriot.com/products/optics/oc_2_1.htm

"Clearly, if the wavelength of the incident light and the thickness
of the film are such that a phase difference exists between reflections

of p, then reflected wavefronts interfere destructively, and overall
reflected intensity is a minimum. If the two reflections are of equal
amplitude, then this amplitude (and hence intensity) minimum will be
zero."

"In the absence of absorption or scatter, the principle of conservation

of energy indicates all 'lost' reflected intensity will appear as
enhanced intensity in the transmitted beam. The sum of the reflected
and
transmitted beam intensities is always equal to the incident intensity.

This important fact has been confirmed experimentally."

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html

"... when two waves of equal amplitude and wavelength that are 180-
degrees out of phase with each other meet, they are not actually
annihilated. All of the photon energy present in these waves must
somehow be recovered or redistributed in a new direction, according to
the law of energy conservation ... Instead, upon meeting, the photons

are redistributed to regions that permit constructive interference, so
the effect should be considered as a redistribution of light waves and
photon energy rather than the spontaneous construction or destruction
of light."
--
73, Cecil http://www.qsl.net/w5dxp

3422. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 14:47:21 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <52sFe.203$d32.6073449@news.sisna.com>
Source record: 72688
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Well, that is just a different system than I am used to.

Take books for example, when getting a new ones, in a series, I hardly ever re-read the old one just to get a start on the new one. Magazines work the same for me, I never re-read the june issue, when first getting the july issue, just to get a proper start on this new issue.

Or, take emptying the garbage as another example. I hardly ever set the old bag in front of the new one, so that once again I will be forced to deal with the old bag before I can empty the new.

But hey, what do I know?

All I do know is I am NOT responsible for formatting others text, they can do that themselves...

John

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:pprbe1hfahest76lou72eniomui9i4j6do@4ax.com...
> On Mon, 25 Jul 2005 04:59:26 GMT, NunYa Bidness
> <nunyabidness@nunyabidness.org> wrote:
>
>> Placing your answer in front of the text you are replying to IS
>>backwards, ass.
>
> Not only is it backwards ... it is also backward!
>
> --
> Walt Davidson Email: g3nyy @despammed.com

3423. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 14:58:40 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <rujce15il0vvouqh2nm6ajpfjf3rmmvsku@4ax.com>
Source record: 72689
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 07:47:21 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>But hey, what do I know?

Not a damned thing, when it comes to Usenet.

3424. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 15:02:30 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <igsFe.205$fn2.6430792@news.sisna.com>
Source record: 72690
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa NumNuts:

Ohh, I know how IT USED TO BE...

Some just don't realize HOW IT IS NOW.

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:rujce15il0vvouqh2nm6ajpfjf3rmmvsku@4ax.com...
> On Tue, 26 Jul 2005 07:47:21 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>But hey, what do I know?
>
> Not a damned thing, when it comes to Usenet.

3425. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 15:14:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e65470$1_1@spool9-west.superfeed.net>
Source record: 72691
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

John Smith wrote:
> Take books for example, when getting a new ones, in a series, I
> hardly ever re-read the old one just to get a start on the new one.

Yes, but do you read the last chapter of the book first? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3426. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 15:58:31 UTC
From: W5DXP <w5dxp@hotmail.com>
Message-ID: <1122393511.012067.232890@g14g2000cwa.googlegroups.com>
Source record: 72692

Richard Clark wrote:
> Now we venture to new materials, and in this case a solar cell,
> described in text as:
>
> 1w | 1/4WL |
> laser-----air-----|---thin-film---|---Germanium---...
> 1st medium | 2nd medium | 3rd medium
> n = 1.0 A n = 2 B n = 4.04

I have added points 'A' and 'B' to Richard's diagram.

Let's make the math simple by having the index of refraction,
n, of the 3rd medium be equal to 4.0. The power reflection
coefficient is 0.1111 and the power transmission coefficient
is 0.8889. All powers will be stated in mW.

Since n2 = sqrt(n1*n4), the system will be reflectionless
in the 1st medium. Proof of that assertion will be left
to the reader but that is a necessary and sufficient
condition for a lossless system.

Here is the transient state of the system an instant
after the first internal reflection from point B arrives
back at point A.

```
1st medium 2nd medium 3rd medium
A B
1000mW-->--| |
|-->--888.9mW-->--|
111.1mW--<--| |-->--790.1mW
|--<--98.76mW--<--|
87.79mW--<--| |
|-->--10.97mW
```

Since the 2nd medium is 1/4WL, in the 1st medium, the
111.1mW external reflection will be 180 degrees out
of phase with the 87.79mW internal transmission leaving
very little of the external reflection uncanceled. A
quick calculation indicates 1.37mW left uncanceled.

When the second internal reflection from point B
arrives back at point A, more wave cancellation
will occur. After very few iterations of reflections,
the 111.1mW external reflection will be canceled.
As in the earlier example, the result is flat black

for reflections in the 1st medium.

Richard Clark sez:
> As you may guess I am going to use the same BW
> correction to find that the un-cancelled reflection products have
> 1800 TIMES MORE POWER THAN THE SUN!

1800 TIMES MORE POWER THAN THE SUN from flat black????
Quick, Richard, get a patent on that process.

Someone sent me an email wondering if Richard C. has a death
wish. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3427. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 16:42:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc5p55ah1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72693
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Dear Cec, a long time ago I found a copy of "The Hunchback of Notre Dame" in my hands. Translated from the French.

I think I had to catch a train. At any rate I didn't have a lot of time to spare.

So I read the last few sentences in the book. I was immediately fascinated.

I then speed-read the last chapter which was all I had time for.

I made a mental note to read the rest of it should the occasion arise.

Some years later, by chance, in a strange town, with nothing better to do, I called in a cinema. The film was Charles Laughton as the Hunchback on the pillory pleading to the crowd for water. The gipsy girl gave him a flask

I then obtained the book via my local Carneague public library and read the whole thing at a single sitting.

They don't write beautiful books like that anymore. Books which read just as well either forwards of backwards.

The Carneague library, a present to my home town from the generous USA before I was born, still stands and still much used, amidst the old Victorian, soot-darkened houses in the Black Country where it all began.

By the way, I'm on "Vin de Table de France" this evening.

Reg.

3428. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:00:00 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <h0rce1ps1est9bfjrufr9itbd2hc4bt118@4ax.com>
Source record: 72694
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 08:02:30 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>NunYa NumNuts:
>
>Ohh, I know how IT USED TO BE...

I know that you're an idiot.
>
>Some just don't realize HOW IT IS NOW.

That'd be you as well. Nothing has changed.

It is a text based forum. Get used to it.

Look up the word chronology.

3429. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:05:17 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <h3uFe.6180$uy3.526@trnddc05>
Source record: 72695

"philnyc" <philnyc22@hotmail.com> wrote in message
news:1122372647.984318.318830@f14g2000cwb.googlegroups.com...
> This is it ! http://members.aol.com/k5oe/ The Eggbeater2 guys, I
> think ?
>
> . After reading Gerald's information on how to construct this antenna
> I was left unclear about the dimensions table and all the digits shown
> there.
>
> 1) What do they stand for, and how to apply them in the construcion of
> the antenna ?
>
> And another thing:
>
> Is there any spacing between the loops when they cross eachother on
> top and on the bottom ?
>
> How about the reflectors, they must be spaced out if they cross
> eachother inside the boom ? How much is the space ?
>
> Thank you very much again.
>
> Phil

Phil

You might search on "Cebik". He shows very good information on how to
build a Moxon Rectangle Turnstile.

Jerry

3430. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:20:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ghuFe.220$sQ2.6591613@news.sisna.com>
Source record: 72696
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

It is a text forum?

Well, ya, if attachments are NOT allowed, you have to use uuencode and uudecode to send binary data!!! (and include it IN the message text)

Well duh!

If you need a tutorial on how to use uuencode, I can furnish you with one--the only reason you do NOT see it here is that, I suspect, most are ignorant to how it is used.

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:h0rce1ps1est9bfjrufr9itbd2hc4bt118@4ax.com...
> On Tue, 26 Jul 2005 08:02:30 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>NunYa NumNuts:
>>
>>Ohh, I know how IT USED TO BE...
>
> I know that you're an idiot.
>>
>>Some just don't realize HOW IT IS NOW.
>
> That'd be you as well. Nothing has changed.
>
> It is a text based forum. Get used to it.
>
> Look up the word chronology.

3431. Re: UHF antenna for Sat ops

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:21:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc5reqjk1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72697

> > . After reading Gerald's information on how to construct this
antenna
> > I was left unclear about the dimensions table and all the digits
shown
> > there.
> >
> > 1) What do they stand for, and how to apply them in the
construcion of
> > the antenna ?
> >
> > And another thing:
> >
> > Is there any spacing between the loops when they cross eachother
on
> > top and on the bottom ?
> >
> > How about the reflectors, they must be spaced out if they cross
> > eachother inside the boom ? How much is the space ?
> >
> > Thank you very much again.
> >
============================

Would you like him to come along and build it for you?

3432. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:26:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6733f$1_1@spool9-west.superfeed.net>
Source record: 72698
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg Edwards wrote:
> By the way, I'm on "Vin de Table de France" this evening.

Shame on you, Reg, after what Jacques Chirac said about
English food.
--
73, Cecil http://www.qsl.net/w5dxp

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3433. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:32:15 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <iusce1142h88q3q07kndhaplr9t4itud4r@4ax.com>
Source record: 72699
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 10:20:05 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>It is a text forum?
>
>Well, ya, if attachments are NOT allowed, you have to use uuencode and uudecode to send binary data!!! (and include it IN the message text)
>
>Well duh!
>
>If you need a tutorial on how to use uuencode, I can furnish you with one--the only reason you do NOT see it here is that, I suspect, most are ignorant to how it is used.
>

You're an idiot.

3434. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:37:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e67603$1_2@spool9-west.superfeed.net>
Source record: 72700
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

John Smith wrote:
> If you need a tutorial on how to use uuencode, I can furnish
> you with one--

Somehow, I don't think the authors of the usenet guidelines
had a uuencoded file in mind when they said "text only". :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3435. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:42:16 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b524c$42e67634$471c636a$26986@ALLTEL.NET>
Source record: 72701
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

At what point may we be sure the equine has assumed room temperature and the tenderizing process has ceased?

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e67603$1_2@spool9-west.superfeed.net...
> John Smith wrote:
> > If you need a tutorial on how to use uuencode, I can furnish
> > you with one--
>
> Somehow, I don't think the authors of the usenet guidelines
> had a uuencoded file in mind when they said "text only". :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3436. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:46:23 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <XFuFe.228$dh4.6892674@news.sisna.com>
Source record: 72702
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil:

Oh no. The advent of the "Psychic Ham" and the hams now can tell us what EVERYONE has/had in mind!!!
(I hate those damn mind readers!) <grin>

My gawd, I cannot keep up with such technology... I am going to have to turn into Art Bell more often! That is what I get for making fun of wayne greene <frown>

Warmest regards,
John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e67603$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> If you need a tutorial on how to use uuencode, I can furnish
> > you with one--
>
> Somehow, I don't think the authors of the usenet guidelines
> had a uuencoded file in mind when they said "text only". :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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3437. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 17:57:48 UTC
From: andrew@a17
Message-ID: <42e6799b$0$38039$5a6aecb4@news.aaisp.net.uk>
Source record: 72703
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In article <42e6733f$1_1@spool9-west.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> writes:
> Reg Edwards wrote:
>> By the way, I'm on "Vin de Table de France" this evening.
>
> Shame on you, Reg, after what Jacques Chirac said about
> English food.

Was that before or after an English resturant won both
the 2004 best resturant in Europe and best resturant in
the World titles? ;-)

--
Andrew Gabriel

3438. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 18:04:05 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <xWuFe.229$424.6784146@news.sisna.com>
Source record: 72635
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil:

Most joking aside, you seen uuencode/uudecode in heavy use up until 1995 when the sudden flood of cheap computers brought all the "riff-raff-know-it-all-regulators" here, since then it tapered until you only see it in use on "binary mostly" chans...

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e67603$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> If you need a tutorial on how to use uuencode, I can furnish
> > you with one--
>
> Somehow, I don't think the authors of the usenet guidelines
> had a uuencoded file in mind when they said "text only". :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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3439. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 18:08:53 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87wtnd783u.fsf@qmc.ph.msstate.edu>
Source record: 72707

>Here is the transient state of the system an instant
>after the first internal reflection from point B arrives
>back at point A.
>
> 1st medium 2nd medium 3rd medium
> A B
> 1000mW-->--| |
> |-->--888.9mW-->--|
>111.1mW--<--| |-->--790.1mW
> |--<--98.76mW--<--|
>87.79mW--<--| |
> |-->--10.97mW

You are correct that in this system (1/4-wave matching layer), the
total reflectance goes to zero.

However, your understanding of superposition is wrong. You
CANNOT superimpose POWERS, or even talk about the "power" of various
reflections in the same media. You can only add the wave amplitudes
(electric fields). THEN you take the total amplitude and square that
to get the power.

Tor
N4OGW

3440. Re: Warning - N9NLU (Dave Schmidt)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 18:22:49 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dc5v1p$18r0$1@f04n12.cac.psu.edu>
Source record: 72705

DOUGLAS SNOWDEN wrote:

> He was on multiple out of town trips. The coax is on the way. He was just
> busy...
>
> Doug N4IJ

How about that? I wonder how many people are going to want to sell
anything to you now? Something a bit awry, with the deal, and you defame
them on the internet.

You do get points for owning up to your mistake, though....

- Mike -

> "Kingfish Stevens" <nospam@nospam.net> wrote in message
> news:3htgd1laqd04dgnopn5nebtahe9lkjjsft@4ax.com...
>
>>I have dealt with him before with no problems, so this surprises me.
>>But, if you used a Postal money order, then he has committed mail
>>fraud, something that can get you snatched back into reality damn
>>fast.
>>Kingfish
>>
>>On Sat, 16 Jul 2005 01:17:23 GMT, "DOUGLAS SNOWDEN"
>><SNOWDEN@peoplepc.com> wrote:
>>
>>
>>>Just a warning to beware of dealing with N9NLU. He promised me 175 ft of
>>>RG-11 coax and I sent him a money order for it. He acknowledged receiving
>>>the money but has not sent the coax. This all occurred over a month and a
>>>half ago. He does not respond to E-mail.
>>>
>>>I have not given up on him yet, but told him I would put out this warning.
>>>
>>>Doug, N4IJ
>>>
>>
>
>

3441. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 18:25:26 UTC
From: Dave <noone@nowhere.com>
Message-ID: <TpudncIf8qqHHXvfRVn-qg@crocker.com>
Source record: 72706

but of course ground isn't ground. there is no such thing as ground, or a ground potential, or a perfect ground, or anything like that. and yes, currents flowing in the ground can be a bad thing, but only if you don't understand them and design to handle them.

"Zombie Wolf" <zmbwf@gwi.net> wrote in message
news:bIydnSy7DZrN43vfRVn-sw@giganews.com...
> Ah but you must avoid upsetting GOD (oops I mean Richard.). A simple
> answer about grounding given to a guy a while back put him into apoplectic
> fits, necessitating the doubling of his meds. You see, "ground" ISN'T
> "ground". That isn't "clever" enough for Richard. He promptly claimed that
> rf currents flowing in a ground system were a "bad thing' and proceeded to
> "explain" it all to us. I wish my elmer 30 years ago had been as "clever"
> as Richard. All these books on the shelves simply are irrelevant, because
> nothing can be simple, you see... It must be complicated, even if it IS
> wrong........
>
> "W5DXP" <w5dxp@hotmail.com> wrote in message
> news:1122384260.192220.309430@g44g2000cwa.googlegroups.com...
>> Richard Clark wrote:
>>> Needless to say, that same first interface is going to conserve energy
>>> by the total of refraction and reflection being equal to the energy
>>> incident upon it. I will skip that to allow ALL of this second
>>> reflection to "try" to totally cancel the first reflection:
>>> 110mW - 92mW
>>> or
>>> 18mW
>>
>> Richard, if you follow the leads of other gurus on this newsgroup,
>> you will 'ploink' me, never admit a mistake, and dupe yourself
>> into believing that you were right all along. Your "Extreme Failures
>> of Poor Concepts" could have been avoided if you guys had just read and
>>
>> understood the following two quotes that I have posted multiple times.
>> What is it about, "... all 'lost' reflected intensity will appear as
>> enhanced intensity in the transmitted beam.", that you guys don't
>> understand?
>>
>> www.mellesgriot.com/products/optics/oc_2_1.htm
>>
>> "Clearly, if the wavelength of the incident light and the thickness
>> of the film are such that a phase difference exists between reflections
>>

>> of p, then reflected wavefronts interfere destructively, and overall
>> reflected intensity is a minimum. If the two reflections are of equal
>> amplitude, then this amplitude (and hence intensity) minimum will be
>> zero."
>>
>> "In the absence of absorption or scatter, the principle of conservation
>>
>> of energy indicates all 'lost' reflected intensity will appear as
>> enhanced intensity in the transmitted beam. The sum of the reflected
>> and
>> transmitted beam intensities is always equal to the incident intensity.
>>
>> This important fact has been confirmed experimentally."
>>
>> http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/in
dex.html
>>
>> "... when two waves of equal amplitude and wavelength that are 180-
>> degrees out of phase with each other meet, they are not actually
>> annihilated. All of the photon energy present in these waves must
>> somehow be recovered or redistributed in a new direction, according to
>> the law of energy conservation ... Instead, upon meeting, the photons
>> are redistributed to regions that permit constructive interference, so
>> the effect should be considered as a redistribution of light waves and
>> photon energy rather than the spontaneous construction or destruction
>> of light."
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
>
>

3442. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 18:38:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc5vvvlas1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72708
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Cecil Moore" wrote
> Reg Edwards wrote:
> > By the way, I'm on "Vin de Table de France" this evening.
>
> Shame on you, Reg, after what Jacques Chirac said about
> English food.
> --
> 73, Cecil
==========

Cec, I am not aware of what Jacques might have said about English cod and chips. Everybody to his own tastes.

But I do object to the USA tendency to confuse politics with diet, to mix up CIA invented non-existent weapons of mass destruction, and oil wells and pipelines with frogs legs and snails.

French politicians have weighed up the present international situation very accurately and honestly. And acted, not always in accordance with their own interests, but everybody's.

After all, in 1793, they were the first of the true revolutionaries. Vive La France! And, of course, their wine.

Reg.

3443. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 19:00:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ogvce19fnggkjve3l8cg4ku5orqu0l1l39@4ax.com>
Source record: 72723

On 26 Jul 2005 13:08:53 -0500, tclay@qmc.ph.msstate.edu wrote:

>You are correct that in this system (1/4-wave matching layer), the
>total reflectance goes to zero.
>
>However, your understanding of superposition is wrong. You
>CANNOT superimpose POWERS, or even talk about the "power" of various
>reflections in the same media. You can only add the wave amplitudes
>(electric fields). THEN you take the total amplitude and square that
>to get the power.

Hi Tor,

This is all taken care of in the equation for energy conservation that
I posted. The solution is valid barring a simple error of subtraction
that should read:
110mW - 98mW
or
12mW
in that same 1mmï¿½, which if we cast to the same terms of comparison to
sunlight it becomes 18000W/Mï¿½ which is 18 TIMES THE POWER OF THE SUN's
total BW emission. As you may guess I am going to use the same BW
correction to find that the un-cancelled reflection products have
1200 TIMES MORE POWER THAN THE SUN!

All should note that if you have only 98mW (expressed in the correct
terms of course as the area terms have been abandoned) available to
offset 110mW (again with the same proviso) then it stands that Total
Cancellation is always impossible. As the two energy levels are not
equal, there is no other answer.

This is not to confuse the solution with the practical reduction. On
the other hand, when the remaining reflection products contains so
much more power than the sun's exposure, it is doubly amusing to see
it expressed as "0."

73's
Richard Clark, KB7QHC

3444. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 19:08:06 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <zSvFe.253$fs4.7029899@news.sisna.com>
Source record: 72631
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg:

I am well aware that our gov't here it not what it used to be. However, as long as the majority of the people continue to believe in fairy tales and wish to see gov't as a "royal class of rulers" who have the right to decide against the majority, I bide my time...

Those french ain't all bad, they sure helped us out when we were getting our first start here, and that statue of liberty, well, she still looks pretty damn kewl!

I am a sucker for a chick with big melons wearing a bed sheet though.
<infatuated-blank-look>

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dc5vvvlas1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Cecil Moore" wrote
>> Reg Edwards wrote:
>> > By the way, I'm on "Vin de Table de France" this evening.
>>
>> Shame on you, Reg, after what Jacques Chirac said about
>> English food.
>> --
>> 73, Cecil
> ============================
>
> Cec, I am not aware of what Jacques might have said about English cod
> and chips. Everybody to his own tastes.
>
> But I do object to the USA tendency to confuse politics with diet, to
> mix up CIA invented non-existent weapons of mass destruction, and oil
> wells and pipelines with frogs legs and snails.
>
> French politicians have weighed up the present international situation
> very accurately and honestly. And acted, not always in accordance with
> their own interests, but everybody's.
>
> After all, in 1793, they were the first of the true revolutionaries.
> Vive La France! And, of course, their wine.
> ----
> Reg.
>
>

3445. Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 19:40:38 UTC
From: Eric Delongchamp <ricdelon@cyberbeach.net>
Message-ID: <7r3de1dcmq3h30cdn81407he6grcd2ob4j@4ax.com>
Source record: 72724

Hi !

I want to put up a 40m dipole antenna and my question is what a transmission line to use, I have two defferent type of twin lead to choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747 GX and MFJ 949 E for equiment. Thanks

Eric D.

3446. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 19:54:49 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87sly1737a.fsf@qmc.ph.msstate.edu>
Source record: 72716

>Hi Tor,
>
>This is all taken care of in the equation for energy conservation that
>I posted. The solution is valid barring a simple error of subtraction
>that should read:
> 110mW - 98mW

Not sure which indices you are now referring to: n_3=4.0 or 4.04? With 4.0, there is zero reflected light. With 4.04 there is a small amount.

Tor
N4OGW

3447. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:17:39 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrnded6j3.2vm5.ben@saturn.home.ben.com>
Source record: 72711

On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
> John, Why did you go to all that trouble? The test is so easy now a
> "Cave Man" could pass them.

Actually I think they were dumbed down so a cave man could GRADE them.
That dictated multiple choice, and it's hard to make a tough multiple
choice test.

Of course what do I know? I'm just a cave man who passed the tests!

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

3448. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:25:50 UTC
From: Dave <noone@nowhere.com>
Message-ID: <HYOdnW6eH6fPAXvfRVn-jQ@crocker.com>
Source record: 72718

use the one that reaches. don't read any more replies, go do the job, put up the antenna and get on the air. if you come back here and read all the messages that this question will generate you will never get on the air!

"Eric Delongchamp" <ricdelon@cyberbeach.net> wrote in message news:7r3de1dcmq3h30cdn81407he6grcd2ob4j@4ax.com...
>
>
>
>
> Hi !
>
>
>
> I want to put up a 40m dipole antenna and my question is what a
> transmission line to use, I have two defferent type of twin lead to
> choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
> GX and MFJ 949 E for equiment. Thanks
>
>
>
> Eric D.

3449. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:27:11 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <E0xFe.267$cb6.7620711@news.sisna.com>
Source record: 72721

Ben:

Give us a couple of examples of what you think are difficult, relevant and appropriate questions, let us see how difficult you think this "rocket science" is, exactly?

Indeed, if there is something you are having a problem with, there are those here which can help you...

John

"Ben Jackson" <ben@ben.com> wrote in message
news:slrnded6j3.2vm5.ben@saturn.home.ben.com...
> On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
>> John, Why did you go to all that trouble? The test is so easy now a
>> "Cave Man" could pass them.
>
> Actually I think they were dumbed down so a cave man could GRADE them.
> That dictated multiple choice, and it's hard to make a tough multiple
> choice test.
>
> Of course what do I know? I'm just a cave man who passed the tests!
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

3450. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:32:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e69efc$1_1@spool9-west.superfeed.net>
Source record: 72719

tclay@qmc.ph.msstate.edu wrote:
>>Here is the transient state of the system an instant
>>after the first internal reflection from point B arrives
>>back at point A.
>>
>> 1st medium 2nd medium 3rd medium
>> A B
>> 1000mW-->--| |
>> |-->--888.9mW-->--|
>>111.1mW--<--| |-->--790.1mW
>> |--<--98.76mW--<--|
>>87.79mW--<--| |
>> |-->--10.97mW
>
>
> You are correct that in this system (1/4-wave matching layer), the
> total reflectance goes to zero.
>
> However, your understanding of superposition is wrong.

Powers obey the equation P1 + P2 + 2*(P1*P2)cos(theta)
when the fields are superposed. 2*(P1*P2)cos(theta) is
known as the "interference" term. That interference term
automatically adjusts the power equation IN ORDER TO AVOID
SUPERPOSITION OF POWERS. That's what I did.

> You CANNOT superimpose POWERS,

I would not even dream of superposing powers. Perhaps you
don't understand the role of the interference term in the
power equation which is to AVOID the superposition of
powers.

P1 + P2 would be superposing powers. I didn't do that.

P1 + P2 + 2*sqrt(P1*P2)cos(theta) is NOT superposing powers.

> or even talk about the "power" of various
> reflections in the same media. You can only add the wave amplitudes
> (electric fields). THEN you take the total amplitude and square that
> to get the power.

Eugene Hecht would be surprised to hear you say such since he
talked about the powers (irradiance) of various reflections in
the same media.

I did not superpose powers. I used Hecht's equations for powers
(irradiance). When E-field1 is superposed with E-field2, powers
obey the equation:

Ptotal = P1 + P2 + 2*sqrt(P1*P2)cos(theta)

where (theta) is the angle between the E-fields, P1 is the power
associated with E-field1, and P2 is the power associated with
E-field2. Reference: _Optics_, by Hecht, equation 9.14

Since the above is a steady-state matched situation, the forward
power in second medium involves total constructive interference:

So Ptotal = P1 + P2 + 2*sqrt(P1*P2)

where P1 = Pfor1*T and P2 = Pref2*R
T is the Transmittance and R is the reflectance
These are very similar to the S-parameter power equations.

Reference "total constructive interference" in _Optics_, by Hecht
equation 9.15. The only difference in irradiance and power is
the unit-area which, for our example, is arbitrary.
--
73, Cecil http://www.qsl.net/w5dxp

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3451. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:36:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e69fce$1_1@spool9-west.superfeed.net>
Source record: 72630
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Reg Edwards wrote:
> Cec, I am not aware of what Jacques might have said about English cod
> and chips. Everybody to his own tastes.

Well Reg, Jacques said he couldn't believe that London got the
olympic games contract because, compared to French food, English
food is not even fit to eat, or something to that effect.
--
73, Cecil http://www.qsl.net/w5dxp

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3452. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:38:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6a05c$1_1@spool9-west.superfeed.net>
Source record: 72715

Richard Clark wrote:

> tclay@qmc.ph.msstate.edu wrote:
>>However, your understanding of superposition is wrong. You
>>CANNOT superimpose POWERS, or even talk about the "power" of various
>>reflections in the same media. You can only add the wave amplitudes
>>(electric fields). THEN you take the total amplitude and square that
>>to get the power.
>
> This is all taken care of in the equation for energy conservation that
> I posted.

Tor, by misunderstanding my posting, you have just fed the monster. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3453. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:41:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6a0e8$1_1@spool9-west.superfeed.net>
Source record: 72722

Eric Delongchamp wrote:
> I want to put up a 40m dipole antenna and my question is what a
> transmission line to use, I have two defferent type of twin lead to
> choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
> GX and MFJ 949 E for equiment. Thanks

Use the 300 ohm line and make it about 62 ft. long,
i.e. 1/2WL.
--
73, Cecil http://www.qsl.net/w5dxp

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3454. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:41:24 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <UIadnddYccaFPXvfRVn-2A@comcast.com>
Source record: 72625

Dave wrote:
> use the one that reaches. don't read any more replies, go do the job, put
> up the antenna and get on the air. if you come back here and read all the
> messages that this question will generate you will never get on the air!
>
How TRUE !!!!!!!!!!!

3455. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:46:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc67ekomr1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72720

> I want to put up a 40m dipole antenna and my question is what a
> transmission line to use, I have two defferent type of twin lead to
> choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu
747
> GX and MFJ 949 E for equiment. Thanks
>

It depends on how you intend to use your antenna and how long will be the feedline to the shack. You will be concerned mainly with the inevitable loss in the line.

I assume one of your equipments is a tuner.

If you intend to use only the 40 meter band and the length of line is not very long then the best choice is the 75 ohm twin line. It makes a fairly good impedance match with both the antenna and the tuner/transmitter at that frequency. A choke balun can be fitted between the line and the tuner.

But if your line is a long one, then the 300 ohm line will probably be better. It depends on how flimsy it is. Again use a choke balun and a tuner.

If you intend to work on several bands then the 300 ohm line is a must. There will be fairly high standing waves on the line at whatever frequency you are on but losses may not be excessive due to the fairly high line impedance. With 300 ohms it could be higher.

Ideally, for multiband working and a long line you should have a substantial 450 ohm ladderline or, best of all, a 600 ohm open wire line.

But don't neglect the antenna. The best antenna is the highest possible.

Reg, G4FGQ

3456. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:48:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6g7de1dhmud4qhj8ecf9g0edbcaf3qt1rn@4ax.com>
Source record: 72628

On 26 Jul 2005 14:54:49 -0500, tclay@qmc.ph.msstate.edu wrote:

>Not sure which indices you are now referring to: n_3=4.0 or 4.04? With
>4.0, there is zero reflected light. With 4.04 there is a small amount.

Hi Tor,

It doesn't matter one iota. You can attempt to achieve a perfect
1:2:4 correlation, or any similar relationship that satisfies the
square laws so demanded.

The point of the matter is with such design characteristics fulfilled,
then each interface reflects/transmits in the same proportion. With
each reflecting/transmitting in the same proportion, the second
interface, by the actions of the first, must have less incident upon
it. It then follows that the same proportion of less incident is not
enough to "Totally Cancel" the first interface reflection.

Observing the conservation of energy at the first interface:
X = 0.89X + 0.11X
Observing the conservation of energy at the second interface:
0.89X = 0.792X + 0.098X

0.098X <> 0.11X

What is even more obvious is that following the second interface, you
have lost roughly 20% of that incident upon the first interface.

There is not enough energy at the second interface, reflected back, to
"Totally Cancel" the energy in the reflection of the first interface.
There can be no other outcome.

That difference yields first interface reflection products that have:
1200 TIMES MORE POWER THAN THE SUN!

73's
Richard Clark, KB7QHC

3457. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:49:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6a2dc$1_1@spool9-west.superfeed.net>
Source record: 72629
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

John Smith wrote:
> Most joking aside, you seen uuencode/uudecode in heavy use up
> until 1995 when the sudden flood of cheap computers ...

That "sudden flood of cheap computers" had WinZip available
which transparently handles uuencode/uudecode.
--
73, Cecil http://www.qsl.net/w5dxp

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3458. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:51:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <unxFe.272$D96.7572553@news.sisna.com>
Source record: 72709

Dave:

There is a balance between the practical and the theory which must be struck to get "on the air", you are correct.

But having both available is an asset rather than a hindrance.

There is room for both here, and I enjoy the guys splitting hairs, there is real knowledge and wisdom there--even if we tease 'em a bit.
<aggravating-grin>

John

"Dave" <noone@nowhere.com> wrote in message news:HYOdnW6eH6fPAXvfRVn-jQ@crocker.com...
> use the one that reaches. don't read any more replies, go do the job, put
> up the antenna and get on the air. if you come back here and read all the
> messages that this question will generate you will never get on the air!
>
> "Eric Delongchamp" <ricdelon@cyberbeach.net> wrote in message
> news:7r3de1dcmq3h30cdn81407he6grcd2ob4j@4ax.com...
>>
>>
>>
>>
>> Hi !
>>
>>
>>
>> I want to put up a 40m dipole antenna and my question is what a
>> transmission line to use, I have two defferent type of twin lead to
>> choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
>> GX and MFJ 949 E for equiment. Thanks
>>
>>
>>
>> Eric D.
>
>

3459. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 20:57:28 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87d5p5cmkn.fsf@qmc.ph.msstate.edu>
Source record: 72713

```
>> A B
>> 1000mW-->--| |
>> |-->--888.9mW-->--|
>>111.1mW--<--| |-->--790.1mW
>> |--<--98.76mW--<--|
>>87.79mW--<--| |
>> |-->--10.97mW
^^^^^
```

>I would not even dream of superposing powers. Perhaps you
>don't understand the role of the interference term in the

Then don't draw diagrams like above labeled with powers of
multiple reflections bouncing around in the same media :)

>Eugene Hecht would be surprised to hear you say such since he
>talked about the powers (irradiance) of various reflections in
>the same media.

Only when dealing with the interference of TWO waves.
He works with electric field when discussing anti-reflection
layers. See 9.7.1

I'm not saying the power equation you give is wrong, but it
is correct for just two waves. With more than two waves, it
obviously becomes more complicated

Tor
N4OGW

3460. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:00:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <3wxFe.274$ls6.7855235@news.sisna.com>
Source record: 72632
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil:

I am afraid my ignorance of winzip prevents me from even a yea or a neigh... I have always used the commandline versions... but, from my confidence in your knowledge--I am inclined to accept that...

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e6a2dc$1_1@spool9-west.superfeed.net...
> John Smith wrote:
>> Most joking aside, you seen uuencode/uudecode in heavy use up
>> until 1995 when the sudden flood of cheap computers ...
>
> That "sudden flood of cheap computers" had WinZip available
> which transparently handles uuencode/uudecode.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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3461. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:01:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6a5bb$1_1@spool9-west.superfeed.net>
Source record: 72710

Richard Clark wrote:

> On 26 Jul 2005 14:54:49 -0500, tclay@qmc.ph.msstate.edu wrote:
>>Not sure which indices you are now referring to: n_3=4.0 or 4.04? With
>>4.0, there is zero reflected light. With 4.04 there is a small amount.
>
> It doesn't matter one iota.

Of course it matters. The 1,2,4 combination meets the necessary and
sufficient conditions for the elimination of reflections in medium 1
assuming a steady-state lossless system, i.e. perfectly matched.

> The point of the matter is with such design characteristics fulfilled,
> then each interface reflects/transmits in the same proportion. With
> each reflecting/transmitting in the same proportion, the second
> interface, by the actions of the first, must have less incident upon
> it.

That is simply not true, Richard. You obviously have not read my
Melles-Griot web posting and/or simply don't understand it. The
forward power in medium 2 is greater than the forward power in
either medium 1 or medium 3. You keep making that same mistake
over and over and over. Why don't you simply take time to
understand the truth?

> What is even more obvious is that following the second interface, you
> have lost roughly 20% of that incident upon the first interface.

But you have gained the energy involved in the wave cancellation
in medium 1. The forward power in medium 2 is higher than it is
in medium 1. You don't actually believe the BS by some gurus on
this newsgroup that standing waves don't contain any energy, do you?

> There is not enough energy at the second interface, reflected back, to
> "Totally Cancel" the energy in the reflection of the first interface.
> There can be no other outcome.

Only in your mind, Richard, only in your mind. The outcome in reality
is complete cancellation of the reflections in medium 1 assuming
1,2,4 indices of refraction.

> That difference yields first interface reflection products that have:
> 1200 TIMES MORE POWER THAN THE SUN!

Somebody get the net!
--

73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3462. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:03:24 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <878xztcmar.fsf@qmc.ph.msstate.edu>
Source record: 72714

>Tor, by misunderstanding my posting, you have just fed the monster. :-)

I see :O Well, I can't get everyone to understand basic physics.

Tor
N4OGW

3463. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:04:12 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <nzxFe.275$Dg6.7726179@news.sisna.com>
Source record: 72641
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Cecil:

ahh, a man which knows good food!

I've got some cheese, crackers and italian salami here, you still got a bottle of that wine left (napa valley, NOT french, don't bring any fry's either!), we will have lunch! <burp!>

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e69fce$1_1@spool9-west.superfeed.net...
> Reg Edwards wrote:
>> Cec, I am not aware of what Jacques might have said about English cod
>> and chips. Everybody to his own tastes.
>
> Well Reg, Jacques said he couldn't believe that London got the
> olympic games contract because, compared to French food, English
> food is not even fit to eat, or something to that effect.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3464. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:09:47 UTC
From: Trevor Day <Trev@secornwall.removethis.com>
Message-ID: <frwsNJKxZq5CFw6o@secornwall.com>
Source record: 72636
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In message <42e69fce$1_1@spool9-west.superfeed.net>, Cecil Moore
<w5dxp@hotmail.com> writes
>Well Reg, Jacques said he couldn't believe that London got the
>olympic games contract because, compared to French food, English
>food is not even fit to eat, or something to that effect.

I think you will find Cecil that Chirac's comments were made before the
result was announced and probably did little to help his cause.

Trev G3ZYY
--
Trevor Day
UKSMG #217
www.uksmg.org

3465. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:13:35 UTC
From: Brian Reay <see@website.invalid>
Message-ID: <3IxFe.4526$SO4.3205@newsfe4-win.ntli.net>
Source record: 72633
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

"Trevor Day" <Trev@secornwall.removethis.com> wrote in message
news:frwsNJKxZq5CFw6o@secornwall.com...
> In message <42e69fce$1_1@spool9-west.superfeed.net>, Cecil Moore
> <w5dxp@hotmail.com> writes
> >Well Reg, Jacques said he couldn't believe that London got the
> >olympic games contract because, compared to French food, English
> >food is not even fit to eat, or something to that effect.
>
> I think you will find Cecil that Chirac's comments were made before the
> result was announced and probably did little to help his cause.
>

You are assuming the French actually wanted to host the games. I suspect
they have spotted it wasn't going to make money and wanted out.

I suspect our hosting the games is going to cost the UK big time.

--
Brian Reay
www.g8osn.org.uk
www.amateurradiotraining.org.uk
FP#898

3466. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:17:42 UTC
From: Zombie Wolf <zmbwf@gwi.net>
Message-ID: <bIydnSy7DZrN43vfRVn-sw@giganews.com>
Source record: 72704

Ah but you must avoid upsetting GOD (oops I mean Richard.). A simple answer about grounding given to a guy a while back put him into apoplectic fits, necessitating the doubling of his meds. You see, "ground" ISN'T "ground". That isn't "clever" enough for Richard. He promptly claimed that rf currents flowing in a ground system were a "bad thing' and proceeded to "explain" it all to us. I wish my elmer 30 years ago had been as "clever" as Richard. All these books on the shelves simply are irrelevant, because nothing can be simple, you see... It must be complicated, even if it IS wrong........

"W5DXP" <w5dxp@hotmail.com> wrote in message
news:1122384260.192220.309430@g44g2000cwa.googlegroups.com...
> Richard Clark wrote:
>> Needless to say, that same first interface is going to conserve energy
>> by the total of refraction and reflection being equal to the energy
>> incident upon it. I will skip that to allow ALL of this second
>> reflection to "try" to totally cancel the first reflection:
>> 110mW - 92mW
>> or
>> 18mW
>
> Richard, if you follow the leads of other gurus on this newsgroup,
> you will 'ploink' me, never admit a mistake, and dupe yourself
> into believing that you were right all along. Your "Extreme Failures
> of Poor Concepts" could have been avoided if you guys had just read and
>
> understood the following two quotes that I have posted multiple times.
> What is it about, "... all 'lost' reflected intensity will appear as
> enhanced intensity in the transmitted beam.", that you guys don't
> understand?
>
> www.mellesgriot.com/products/optics/oc_2_1.htm
>
> "Clearly, if the wavelength of the incident light and the thickness
> of the film are such that a phase difference exists between reflections
>
> of p, then reflected wavefronts interfere destructively, and overall
> reflected intensity is a minimum. If the two reflections are of equal
> amplitude, then this amplitude (and hence intensity) minimum will be
> zero."
>
> "In the absence of absorption or scatter, the principle of conservation
>
> of energy indicates all 'lost' reflected intensity will appear as

> enhanced intensity in the transmitted beam. The sum of the reflected
> and
> transmitted beam intensities is always equal to the incident intensity.
>
> This important fact has been confirmed experimentally."
>
> http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/ind
ex.html
>
> "... when two waves of equal amplitude and wavelength that are 180-
> degrees out of phase with each other meet, they are not actually
> annihilated. All of the photon energy present in these waves must
> somehow be recovered or redistributed in a new direction, according to
> the law of energy conservation ... Instead, upon meeting, the photons
> are redistributed to regions that permit constructive interference, so
> the effect should be considered as a redistribution of light waves and
> photon energy rather than the spontaneous construction or destruction
> of light."
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

3467. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:20:36 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dc69f4$8pk$1@news.service.uci.edu>
Source record: 72712

Cecil Moore wrote:

> Powers obey the equation P1 + P2 + 2*(P1*P2)cos(theta)

I thought you said nature doesn't obey math models. :-)

> P1 + P2 would be superposing powers. I didn't do that.
>
> P1 + P2 + 2*sqrt(P1*P2)cos(theta) is NOT superposing powers.

You do understand that interference is the result of the superposition of waves traveling in the same direction, right?

> Eugene Hecht would be surprised to hear you say such since he
> talked about the powers (irradiance) of various reflections in
> the same media.

Again Cecil, you're really in no position to speak on his behalf. He might not think that highly of your doing so in fact. Perhaps you should obtain his permission first.

> I did not superpose powers. I used Hecht's equations for powers
> (irradiance).

Actually, the fact that those equations appear in his book (as well as just about any other optics book) does not convey any rights of ownership or invention to the author. They were around a long time before Dr. Hecht.

> The only difference in irradiance and power is
> the unit-area which, for our example, is arbitrary.

You should show him your equation with all the power terms (P1-P4) in it! You had some of the powers going one way, and the others going the other way. You needed them all to add up to some particular number, so you just added them. - or maybe subtracted some of them. I don't recall exactly.

3468. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 21:30:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6ac9f$1_2@spool9-west.superfeed.net>
Source record: 72627

tclay@qmc.ph.msstate.edu wrote:

>W5DXP wrote:
>>Eugene Hecht would be surprised to hear you say such since he
>>talked about the powers (irradiance) of various reflections in
>>the same media.
>
> Only when dealing with the interference of TWO waves.
> He works with electric field when discussing anti-reflection
> layers. See 9.7.1
>
> I'm not saying the power equation you give is wrong, but it
> is correct for just two waves. With more than two waves, it
> obviously becomes more complicated

medium 1 medium 2 medium 3
A B
1000mW-->--| |
|-->--888.9mW-->--|
111.1mW--<--| |-->--790.1mW
|--<--98.76mW--<--|
87.79mW--<--| |
|-->--10.97mW

I appologize if the diagram wasn't clear. It is extremely
difficult to draw graphics in ASCII.

But I only ever deal with TWO waves. Above in medium 1,
the two waves are the 111.1 wave and the 87.79 wave.
There are only TWO rearward-traveling waves there. Hecht's
irradiance equation works for those TWO waves.

The TWO waves in medium 2 are the 888.9 wave and the
10.97 wave. There are only TWO forward-traveling waves
there. Hecht's irradiance equation works for those
TWO waves.

Since I am not trying to calculate the power in the standing
waves, there are only ever TWO values of power to deal with.

Sorry for the confusion.
--
73, Cecil http://www.qsl.net/w5dxp

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3469. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:01:17 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <HoyFe.20129$Eo.505@fed1read04>
Source record: 72626

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message news:...

> My current antenna is a modified Van Gordon "All Bander".
> For reference, the stock antenna is 134' of 14g stranded
> bare copper fed with 100' of 450 ohm ladder line. I cut off
> half of the ladder line and replaced it with a 12 turn, 5-1/4"
> rg58 coil. 20 feet of rg58 goes from the coil into the shack.
> I then trimmed the antenna to 7.175 mhz.
>
> The antenna is a flat dipole up 20'. Seems to work OK but
> I've got the itch to improve it. The feed point is 12" above
> the peak of my roof. I was thinking about installing a 5' tripod
> and 2 ten foot masts to elevate the antenna's feed point and
> convert it into an inverted V. There will be no need to add to
> the feedline.
>

<snip>

Well, it's up guys! The apex is about 40' and the ends are 28'.
Comparing it to my other antennas I'm seeing about a 1-1/2 to
2 S unit improvement on 40m and more on the higher bands.

I did a SWR plot before and after changing it and here's the
sticking point: Before, I had a 2:1 range from 6.900-7.280 and
now I've got 7.000-7.300 but the minimum SWR went from
1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
easily but I'm wondering what would happen if I added 12 feet
to my 50' of 450 ohm ladder line? Would the minimum SWR
get better or just move? Or both? Does it really matter? (I don't
think it matters based on what I've read here).

Ken

--
Just my 2¢... 73 es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

3470. Re: APRS and voice - mobile configuration

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:02:35 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dc6btr$bt1$1@engnntp2.cig.mot.com>
Source record: 72637

Many do this and don't worry about it. I have not heard of anyone hurting a
receiver. I would, however, keep the antennas as far apart as possible.

One thing. The APRS transmitter should be kept as low as possible and still
get the desired results.

You can also sign up to the tapr list and query the Gurus.
https://lists.tapr.org/mailman/listinfo

73, Steve, K9DCI

<pgardella@gmail.com> wrote in message
news:1122054980.698869.195170@o13g2000cwo.googlegroups.com...
> There are times when Google search is great, and others where it fails
> me. This is one of those situations.
>
> I'm trying to find out what people recommend for handling both APRS and
> voice radios in the same vehicle. I want to have two separate rigs,
> one dedicated to APRS, the other for normal voice comms. I'm concerned
> about receiver overload and frying one of the rigs when the other is
> transmitting at high power.
>
> The rigs are modern (Yeasu FT-2800 for APRS and Yeasu FT-8900 for
> voice). Would the intermod rejection of these two rigs protect them?
> I'd rather not set up a cavity or other expensive filters.
>
> How do others have this setup in place?
>
> 73,
> patrick
>

3471. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:04:08 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e6b3b8_3@newsfeed.slurp.net>
Source record: 72634
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I will post this at both the bottom and top, trying to please everybody at once. In the Great Scheme, is this subject really worth these multiple posts? Those who rage on about this subject consistently need to find something more useful to fill their time. Maybe volunteer work?

"NunYa Bidness" wrote
> How was it any easier to post that one line tripe at the top than
> where it belongs? How easy, oh yeah... a couple of clicks. You are
> one lazy bastard.

I will post this at both the bottom and top, trying to please everybody at once. In the Great Scheme, is this subject really worth these multiple posts? Those who rage on about this subject consistently need to find something more useful to fill their time. Maybe volunteer work?

3472. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:07:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6b512$1_2@spool9-west.superfeed.net>
Source record: 72717

Jim Kelley wrote:
> You do understand that interference is the result of the superposition
> of waves traveling in the same direction, right?

Of course, there are two superposition terms in each direction
represented by the two S-parameter equations.

b1 = s11*a1 + s12*a2 toward the source

b2 = s21*a1 + s22*a2 toward the load

The two terms in the first equation interfere with each other
toward the source. The two terms in the second equation interfere
with each other toward the load. When b1=0, the system is matched,
and total destructive interference exists toward the source. In
that case, total constructive interference exists toward the load.

> Actually, the fact that those equations appear in his book (as well as
> just about any other optics book) does not convey any rights of
> ownership or invention to the author. They were around a long time
> before Dr. Hecht.

Didn't mean to imply that he owns them. "Hecht's equations" simply
means they appear in his book. They were around a long time before
anyone on this newsgroup called them "gobblegook". The interference
equations also appear in Chipman's 1968 "Transmission Lines".

> You should show him your equation with all the power terms (P1-P4) in
> it! You had some of the powers going one way, and the others going the
> other way.

Nope, you are confused. All powers are going the same direction for any
individual equation in my article. Destructive interference energy in one
direction equals constructive interference energy in the opposite direction.
If you will wade through the transient buildup to steady-state of the recent
examples, you won't be confused anymore by direction. During the transient
buildup phase, when the first destructive interference occurs toward the source,
an equal amount of constructive interference energy flows toward the load -
same energy, just flowing in the opposite direction. If destructive
interference energy in one direction equals P3+P4, constructive interference
energy in the opposite direction equals P3+P4 to satisfy the conservation
of energy principle.

Perhaps you are remembering the equation (Pload = Pfor - Pref) where Pfor
and Pref are flowing in different directions. But that equation doesn't
appear in my article.

--
73, Cecil http://www.qsl.net/w5dxp

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3473. Re: Dipole in the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:47:31 UTC
From: garigue <garigue@comcast.net>
Message-ID: <MJednZ6t6PnIIHvfRVn-1A@comcast.com>
Source record: 72639

I have used rayon for years .....in fact I put rayon between the posts that held my grape vines ....went by the old QTH yesterday and the grapes were still up after almost 20 years .....

73 all de Tom Popovic KI3R

3474. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:48:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <35zFe.292$kG1.12175514@news.sisna.com>
Source record: 72640
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Richard F.:

Don't complain about that, how about the control freaks which are around and about attempting to get everyone organized, stopped and doing something the control freak wants--now there are some sick puppies! Go tell them to get a life and quit barging in where they are not wanted...

John

"Richard Fry" <rfry@adams.net> wrote in message news:42e6b3b8_3@newsfeed.slurp.net...
>I will post this at both the bottom and top, trying to please everybody at
> once. In the Great Scheme, is this subject really worth these multiple
> posts? Those who rage on about this subject consistently need to find
> something more useful to fill their time. Maybe volunteer work?
>
> "NunYa Bidness" wrote
>> How was it any easier to post that one line tripe at the top than
>> where it belongs? How easy, oh yeah... a couple of clicks. You are
>> one lazy bastard.
>
> I will post this at both the bottom and top, trying to please everybody at
> once. In the Great Scheme, is this subject really worth these multiple
> posts? Those who rage on about this subject consistently need to find
> something more useful to fill their time. Maybe volunteer work?
>

3475. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:57:13 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <2pfde1pgu5mv4jq1qcnk06tia700a5sil9@4ax.com>
Source record: 72644
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 12:26:11 -0500, Cecil Moore <w5dxp@hotmail.com> wrote:

>Reg Edwards wrote:

>> By the way, I'm on "Vin de Table de France" this evening.

I'm sure even you Reg can afford something a bit more up-market!

>Shame on you, Reg, after what Jacques Chirac said about
>English food.

What Chirac said about English food was spot on.

(I'm glad he commented on ENGLISH food and made no comment on
the cuisine of the other British nations!)

73 de Jock.
--

The English are not very spiritual people, so they
invented cricket to give them some idea of eternity.
- George Bernard Shaw

3476. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 22:59:20 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <61gde1dbe7p3amvnafh9547t98bognceen@4ax.com>
Source record: 72642
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 21:13:35 GMT, "Brian Reay" <see@website.invalid> wrote:

>"Trevor Day" <Trev@secornwall.removethis.com> wrote in message
>news:frwsNJKxZq5CFw6o@secornwall.com...
>> In message <42e69fce$1_1@spool9-west.superfeed.net>, Cecil Moore
>> <w5dxp@hotmail.com> writes
>> >Well Reg, Jacques said he couldn't believe that London got the
>> >olympic games contract because, compared to French food, English
>> >food is not even fit to eat, or something to that effect.
>>
>> I think you will find Cecil that Chirac's comments were made before the
>> result was announced and probably did little to help his cause.
>>
>
>You are assuming the French actually wanted to host the games. I suspect
>they have spotted it wasn't going to make money and wanted out.
>
>I suspect our hosting the games is going to cost the UK big time.

And how! It's also a long way to 2012.

73 de Jock.
--

The English are not very spiritual people, so they
invented cricket to give them some idea of eternity.
- George Bernard Shaw

3477. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 23:03:42 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <l9gde1dmoud9jdkeadrerlhreetsk63a8s@4ax.com>
Source record: 72643
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On 26 Jul 2005 17:57:48 GMT, andrew@a17 (Andrew Gabriel) wrote:

>In article <42e6733f$1_1@spool9-west.superfeed.net>,
> Cecil Moore <w5dxp@hotmail.com> writes:
>> Reg Edwards wrote:
>>> By the way, I'm on "Vin de Table de France" this evening.
>>
>> Shame on you, Reg, after what Jacques Chirac said about
>> English food.
>
>Was that before or after an English resturant won both
>the 2004 best resturant in Europe and best resturant in
>the World titles? ;-)

They were probably French or Italian restaurants.

73 de Jock.
--

The English are not very spiritual people, so they
invented cricket to give them some idea of eternity.
- George Bernard Shaw

3478. Re: Warning - N9NLU (Dave Schmidt)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 23:17:58 UTC
From: Dan <starkenburg.remove@this.sio.midco.net>
Message-ID: <DaSdnXzVwbAHWXvfRVn-3g@midco.net>
Source record: 72638

Glad to hear it worked out okay and thanks for the update. Over 1.5 months
is a long time to wait so I probably would've been concerned as well.

FYI - sending a Postal Money order isn't as helpful as one may think. I got
took on a transaction involving a USPS money order sent through US Mail. I
turned it over to the US Postal Inspectors and waited about two months just
to get a letter saying they've referred it to a third-party organization
(Fraud Busters) that did absolutely nothing. The USPS Inspectors are a
joke. You'd be better off relying on eBay / PayPal / MC/VISA for some type
of buyer protection.

73,
Dan / ab0re

"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
news:B%gFe.17141$aY6.12431@newsread1.news.atl.earthlink.net...
> He was on multiple out of town trips. The coax is on the way. He was just
> busy...
>
> Doug N4IJ
>
>
> "Kingfish Stevens" <nospam@nospam.net> wrote in message
> news:3htgd1laqd04dgnopn5nebtahe9lkjjsft@4ax.com...
>>I have dealt with him before with no problems, so this surprises me.
>> But, if you used a Postal money order, then he has committed mail
>> fraud, something that can get you snatched back into reality damn
>> fast.
>> Kingfish
>>
>> On Sat, 16 Jul 2005 01:17:23 GMT, "DOUGLAS SNOWDEN"
>> <SNOWDEN@peoplepc.com> wrote:
>>
>>>Just a warning to beware of dealing with N9NLU. He promised me 175 ft of
>>>RG-11 coax and I sent him a money order for it. He acknowledged receiving
>>>the money but has not sent the coax. This all occurred over a month and
>>>a
>>>half ago. He does not respond to E-mail.
>>>
>>>I have not given up on him yet, but told him I would put out this
>>>warning.
>>>
>>>Doug, N4IJ
>>>
>>

>
>

3479. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 23:48:07 UTC
From: andrew@a17
Message-ID: <42e6cbb7$0$38039$5a6aecb4@news.aaisp.net.uk>
Source record: 72645
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In article <l9gde1dmoud9jdkeadrerlhreetsk63a8s@4ax.com>,
Jock. <real_class_a2003@yahoo.fr> writes:
> On 26 Jul 2005 17:57:48 GMT, andrew@a17 (Andrew Gabriel) wrote:
>
>>In article <42e6733f$1_1@spool9-west.superfeed.net>,
>> Cecil Moore <w5dxp@hotmail.com> writes:
>>> Shame on you, Reg, after what Jacques Chirac said about
>>> English food.
>>
>>Was that before or after an English resturant won both
>>the 2004 best resturant in Europe and best resturant in
>>the World titles? ;-)
>
> They were probably French or Italian restaurants.

No. There are some French and possibily other country's dishes on
the menu, but it's most certainly not even the tinyest bit a French
or Italian Resturant.

http://www.fatduck.co.uk/

The tasting menu is unique to The Fat Duck/Heston Blumenthal AFAIK.

--
Andrew Gabriel

3480. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 23:49:48 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11edj0t1or8jq5a@corp.supernews.com>
Source record: 72647

Draw a Colpitts Oscillator

Dave WD9BDZ

John Smith wrote:
> Ben:
>
> Give us a couple of examples of what you think are difficult, relevant and appropriate questions, let us see how difficult you think this "rocket science" is, exactly?
>
> Indeed, if there is something you are having a problem with, there are those here which can help you...
>
> John
>
> "Ben Jackson" <ben@ben.com> wrote in message news:slrnded6j3.2vm5.ben@saturn.home.ben.com...
>
>>On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
>>
>>>John, Why did you go to all that trouble? The test is so easy now a
>>>"Cave Man" could pass them.
>>
>>Actually I think they were dumbed down so a cave man could GRADE them.
>>That dictated multiple choice, and it's hard to make a tough multiple
>>choice test.
>>
>>Of course what do I know? I'm just a cave man who passed the tests!
>>
>>--
>>Ben Jackson
>><ben@ben.com>
>>http://www.ben.com/

3481. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 23:50:46 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <t%zFe.317$M53.15405128@news.sisna.com>
Source record: 72648
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Jock:

You remind me of a guy I knew in high school and though college...

Johck Strapp...

I guess you are no relation though...

John

"Jock." <real_class_a2003@yahoo.fr> wrote in message
news:2pfde1pgu5mv4jq1qcnk06tia700a5sil9@4ax.com...
> On Tue, 26 Jul 2005 12:26:11 -0500, Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>Reg Edwards wrote:
>
>>> By the way, I'm on "Vin de Table de France" this evening.
>
> I'm sure even you Reg can afford something a bit more up-market!
>
>>Shame on you, Reg, after what Jacques Chirac said about
>>English food.
>
> What Chirac said about English food was spot on.
>
> (I'm glad he commented on ENGLISH food and made no comment on
> the cuisine of the other British nations!)
>
> 73 de Jock.
> --
>
> The English are not very spiritual people, so they
> invented cricket to give them some idea of eternity.
> - George Bernard Shaw

3482. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-26 23:51:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <V_zFe.2277$G71.713@bignews3.bellsouth.net>
Source record: 72646

but - what if the radio is more than 62 ft from the antenna?

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e6a0e8$1_1@spool9-west.superfeed.net...
> Eric Delongchamp wrote:
> > I want to put up a 40m dipole antenna and my question is what a
> > transmission line to use, I have two defferent type of twin lead to
> > choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
> > GX and MFJ 949 E for equiment. Thanks
>
> Use the 300 ohm line and make it about 62 ft. long,
> i.e. 1/2WL.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
=----

3483. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:06:46 UTC
From: "David.Shrader" <W1MCE@comcast.net>
Message-ID: <ZoSdnSK4m_WhTXvfRVn-sA@comcast.com>
Source record: 72649
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In the words of that greatest american philosopher: "De Ja Vous, all
over again" --- Y. Berra

It's time to let this issue die.

Richard Fry wrote:

> I will post this at both the bottom and top, trying to please everybody
> at once. In the Great Scheme, is this subject really worth these
> multiple posts? Those who rage on about this subject consistently need
> to find something more useful to fill their time. Maybe volunteer work?
>
> "NunYa Bidness" wrote
>
>> How was it any easier to post that one line tripe at the top than
>> where it belongs? How easy, oh yeah... a couple of clicks. You are
>> one lazy bastard.
>
>
> I will post this at both the bottom and top, trying to please everybody
> at once. In the Great Scheme, is this subject really worth these
> multiple posts? Those who rage on about this subject consistently need
> to find something more useful to fill their time. Maybe volunteer work?

3484. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:13:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <xkAFe.320$3H3.16554020@news.sisna.com>
Source record: 72661

Hal:

Go to a lower operating frequency, silly!

John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:V_zFe.2277$G71.713@bignews3.bellsouth.net...
> but - what if the radio is more than 62 ft from the antenna?
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42e6a0e8$1_1@spool9-west.superfeed.net...
>> Eric Delongchamp wrote:
>> > I want to put up a 40m dipole antenna and my question is what a
>> > transmission line to use, I have two defferent type of twin lead to
>> > choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
>> > GX and MFJ 949 E for equiment. Thanks
>>
>> Use the 300 ohm line and make it about 62 ft. long,
>> i.e. 1/2WL.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
>> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
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> =----
>
>

3485. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:16:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <znAFe.321$rM3.16778373@news.sisna.com>
Source record: 72658

David:

Even now, I would have to look at a diagram... however, once reviewed I could draw you one for a month or so, before again I would have to look...

That is difficult? Your question is as easy as any on that test!

Now if you asked me to draw you a picture of George Bush and make it realistic--I would fail forever--gawd, get a clue man if all you want to do is make the test difficult and allow artists licenses!

John

"David G. Nagel" <nagel@core.com> wrote in message
news:11edj0t1or8jq5a@corp.supernews.com...
> Draw a Colpitts Oscillator
>
> Dave WD9BDZ
>
> John Smith wrote:
>> Ben:
>>
>> Give us a couple of examples of what you think are difficult, relevant and appropriate questions, let us see how difficult you think this "rocket science" is, exactly?
>>
>> Indeed, if there is something you are having a problem with, there are those here which can help you...
>>
>> John
>>
>> "Ben Jackson" <ben@ben.com> wrote in message
news:slrnded6j3.2vm5.ben@saturn.home.ben.com...
>>
>>>On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
>>>
>>>>John, Why did you go to all that trouble? The test is so easy now a
>>>>"Cave Man" could pass them.
>>>
>>>Actually I think they were dumbed down so a cave man could GRADE them.
>>>That dictated multiple choice, and it's hard to make a tough multiple
>>>choice test.
>>>
>>>Of course what do I know? I'm just a cave man who passed the tests!
>>>
>>>--
>>>Ben Jackson

>>><ben@ben.com>
>>>http://www.ben.com/

3486. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:17:51 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <nfGdnX7mieRIT3vfRVn-3w@comcast.com>
Source record: 72650
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Jock. wrote:

> SNIPPED
>
> (I'm glad he commented on ENGLISH food and made no comment on
> the cuisine of the other British nations!)
>
> 73 de Jock.

"(... cuisine of the other British nations!)"

Now that is a total destruction of the English Language!!

Let's parse that a bit ...

cuisine ... commonly understood as French style cooking.

British nations ... commonly understood as Canada, or Australia, or New Zealand, or Northern Ireland, or ... Britain, or ....

CONCLUSION: French style cooking of world wide english speaking nations.

Thank goodness he did not say Chinese Cuisine! Would that be Chinese style French cooking or French style Chinese cooking? Ah ha! I'll have Mandarin Duck over a French wine sauce flavored pork fried rice.

3487. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:19:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <DqAFe.322$HO3.16854147@news.sisna.com>
Source record: 72659
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

... as long as control freaks live, this subject shall live on, it was before me, it will be here long after me...

John

"David.Shrader" <W1MCE@comcast.net> wrote in message news:ZoSdnSK4m_WhTXvfRVn-sA@comcast.com...
> In the words of that greatest american philosopher: "De Ja Vous, all
> over again" --- Y. Berra
>
> It's time to let this issue die.
>
> Richard Fry wrote:
>
>> I will post this at both the bottom and top, trying to please everybody
>> at once. In the Great Scheme, is this subject really worth these
>> multiple posts? Those who rage on about this subject consistently need
>> to find something more useful to fill their time. Maybe volunteer work?
>>
>> "NunYa Bidness" wrote
>>
>>> How was it any easier to post that one line tripe at the top than
>>> where it belongs? How easy, oh yeah... a couple of clicks. You are
>>> one lazy bastard.
>>
>>
>> I will post this at both the bottom and top, trying to please everybody
>> at once. In the Great Scheme, is this subject really worth these
>> multiple posts? Those who rage on about this subject consistently need
>> to find something more useful to fill their time. Maybe volunteer work?
>

3488. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:22:34 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <hISdnWftrudtTnvfRVn-rA@comcast.com>
Source record: 72651

Copy 60 seconds of Morse Code by hand with no errors, corrections or omissions.

What's the difference between a Colpitts oscillator and a Hartley Oscillator? Draw schematics of both showing the differences.

What is the purpose of a 'swinging choke'?

Ah!! Those were the days ....n :-)

David G. Nagel wrote:

> Draw a Colpitts Oscillator
>
> Dave WD9BDZ
>
> John Smith wrote:
>
>> Ben:
>>
>> Give us a couple of examples of what you think are difficult, relevant
>> and appropriate questions, let us see how difficult you think this
>> "rocket science" is, exactly?
>>
>> Indeed, if there is something you are having a problem with, there are
>> those here which can help you...
>>
>> John
>>
>> "Ben Jackson" <ben@ben.com> wrote in message
>> news:slrnded6j3.2vm5.ben@saturn.home.ben.com...
>>
>>> On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
>>>
>>>> John, Why did you go to all that trouble? The test is so easy now a
>>>> "Cave Man" could pass them.
>>>
>>>
>>> Actually I think they were dumbed down so a cave man could GRADE them.
>>> That dictated multiple choice, and it's hard to make a tough multiple
>>> choice test.
>>>
>>> Of course what do I know? I'm just a cave man who passed the tests!
>>>
>>> --
>>> Ben Jackson

```
>>> <ben@ben.com>
>>> http://www.ben.com/
```

3489. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:24:20 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <hISdnWbtrufHSXvfRVn-rA@comcast.com>
Source record: 72652

Then add another 62 feet of transmission line ... etc.

Hal Rosser wrote:

> but - what if the radio is more than 62 ft from the antenna?
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42e6a0e8$1_1@spool9-west.superfeed.net...
>
>>Eric Delongchamp wrote:
>>
>>>I want to put up a 40m dipole antenna and my question is what a
>>>transmission line to use, I have two defferent type of twin lead to
>>>choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
>>> GX and MFJ 949 E for equiment. Thanks
>>
>>Use the 300 ohm line and make it about 62 ft. long,
>>i.e. 1/2WL.
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>>
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>
>

3490. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 00:41:19 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <f7KdnZMuWf_IRXvfRVn-vw@comcast.com>
Source record: 72653

Ken Bessler wrote:

> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message news:...
>
>
>>My current antenna is a modified Van Gordon "All Bander".
>>For reference, the stock antenna is 134' of 14g stranded
>>bare copper fed with 100' of 450 ohm ladder line. I cut off
>>half of the ladder line and replaced it with a 12 turn, 5-1/4"
>>rg58 coil. 20 feet of rg58 goes from the coil into the shack.
>>I then trimmed the antenna to 7.175 mhz.
>>
>>The antenna is a flat dipole up 20'. Seems to work OK but
>>I've got the itch to improve it. The feed point is 12" above
>>the peak of my roof. I was thinking about installing a 5' tripod
>>and 2 ten foot masts to elevate the antenna's feed point and
>>convert it into an inverted V. There will be no need to add to
>>the feedline.
>>
>
>
> <snip>
>
>
> Well, it's up guys! The apex is about 40' and the ends are 28'.
> Comparing it to my other antennas I'm seeing about a 1-1/2 to
> 2 S unit improvement on 40m and more on the higher bands.
>
> I did a SWR plot before and after changing it and here's the
> sticking point: Before, I had a 2:1 range from 6.900-7.280 and
> now I've got 7.000-7.300 but the minimum SWR went from
> 1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
> easily but I'm wondering what would happen if I added 12 feet
> to my 50' of 450 ohm ladder line? Would the minimum SWR
> get better or just move? Or both? Does it really matter? (I don't
> think it matters based on what I've read here).
>
> Ken

SWR has nothing to do with the length of line [assuming low loss line].
SWR is determined solely by the antenna to transmission line impedance.
[e.g. an antenna input impedance of 70 ohms and a 50 ohm cable has a SWR
of 1.4:1 ALL the time].

SWR changes as a function of antenna height above ground because of ground effects. Don't worry about it! The ground effect has a mutual impedance impact on the antenna. Antennas close to ground, < 1/4 wavelength, tend to have lower feedpoint impedances. Antennas > 1/4 wavelength high will exhibit a higher impedance that will oscillate and converge on Ro as a function of higher height, ultimately achieving Ro in free space.

It doesn't matter in the amateur radio world or the engineering world. Physicists will want to understand all the variables involved in the interest of science. That's great! But, I'm more into amateur radio and not physics.

3491. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:08:14 UTC
From: dplatt@radagast.org
Message-ID: <11ednjuepoh2o18@corp.supernews.com>
Source record: 72654

In article <f7KdnZMuWf_IRXvfRVn-vw@comcast.com>,
Ham op <hamop@comcast.net> wrote:
>> I did a SWR plot before and after changing it and here's the
>> sticking point: Before, I had a 2:1 range from 6.900-7.280 and
>> now I've got 7.000-7.300 but the minimum SWR went from
>> 1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
>> easily but I'm wondering what would happen if I added 12 feet
>> to my 50' of 450 ohm ladder line? Would the minimum SWR
>> get better or just move? Or both? Does it really matter? (I don't
>> think it matters based on what I've read here).
>
>SWR has nothing to do with the length of line [assuming low loss line].

True in one respect, but not necessarily a complete answer in this
case (I think).

>SWR is determined solely by the antenna to transmission line impedance.
>[e.g. an antenna input impedance of 70 ohms and a 50 ohm cable has a SWR
>of 1.4:1 ALL the time].

True, but that's not the whole story here.

If I understand the OP's setup properly, he's trimmed his antenna wire
down to be a half-wave 40-meter dipole. He's then feeding it with a
combination of ladder line, a coaxial balun, and coax to the shack.

If that's a true picture of the situation, then I would expect the SWR
at the shack end of the coax to vary quite a lot as the length of the
ladder line is changed.

Reasoning: the antenna's feedpoint impedance wouldn't be too far from
the 50-to-70 ohm range, give its resonant length and its height above
ground. This impedance will be transformed by the 450-ohm ladder
line, and the impedance at the ladder-line/coax joining point will
depend on the degree of transformation.

If the ladder line is cut to be an integral number of electrical
half-wavelengths, it would mirror the antenna feedpoint impedance to
the coax. There's be a good match, the SWR on the coax would be
somewhere between 1:1 and 1.5:1, and the rig would quite possibly be
happy without even needing its internal ATU. This is Good.

On the other hand, if the ladder line is an odd number of
quarter-wavelengths, it would transform the antenna's feedpoint
impedance up to a much higher value (in excess of 1000 ohms). This
would result in a severe mismatch at the ladder-line/coax joining
point, and a high SWR on the coax. I'd expect both high losses, and a

significant amount of RF appearing on the coax braid (the coiled-coax choke balun wouldn't have enough choking reactance). The rig's ATU might not be able to match this load at all. This would be Bad.

In these two extreme cases, the SWR on the ladder line would be high, and wouldn't change appreciably as the ladder-line length was changed. Losses in the ladder line should be minimal.

The SWR on the coax section, and the impedance presented to the rig, would vary anywhere from "utterly benign" to "nasty and unacceptable" depending on the length of the ladder line.

The same basic reasoning would seem to apply, I think, for any antenna feedpoint impedance other than one which matches that of the ladder line. Although changing the ladder-line length won't affect the SWR on the ladder line, it can affect the SWR on the coax section (possibly by a lot!) due to the varying transformation of the antenna's feedpoint impedance.

This is, in a way, the converse of Cecil's "no tuner" matching arrangment, which uses a tuned ladder-line feeder to transform a dipole's feedpoint impedance down to 50 ohms on multiple bands by adjusting the feeder length.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3492. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:11:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6e058$1_1@spool9-west.superfeed.net>
Source record: 72655

Hal Rosser wrote:
> but - what if the radio is more than 62 ft from the antenna?

Then naturally you use 124 ft.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3493. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:14:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6e0ec$1_1@spool9-west.superfeed.net>
Source record: 72656

Ham op wrote:
> What is the purpose of a 'swinging choke'?

To get it closer to the antenna feedpoint?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3494. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:20:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e6e24d$1_2@spool9-west.superfeed.net>
Source record: 72657
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

John Smith wrote:
> ... you still got a bottle of that wine left (napa valley, NOT french, ...

Franzia Merlot from Ripon, CA. Where is Ripon?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3495. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:25:15 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b9e9c$42e6e27f$471c636a$13836@ALLTEL.NET>
Source record: 72664

and label the frequency determining elements. At least that is how I
remember it...

"David G. Nagel" <nagel@core.com> wrote in message
news:11edj0t1or8jq5a@corp.supernews.com...
> Draw a Colpitts Oscillator
>
> Dave WD9BDZ

3496. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:37:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <FzBFe.335$te5.18978865@news.sisna.com>
Source record: 72660

Cecil:

<stoopid-puzzled-look-on-face>

Some fools try to use the damn things in power supplies!

Macho men which want a real "tarzan" (the original swinger) in their radio! (arnold probably has one in his cordless phones power supply)

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e6e0ec$1_1@spool9-west.superfeed.net...
> Ham op wrote:
>> What is the purpose of a 'swinging choke'?
>
> To get it closer to the antenna feedpoint?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3497. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:40:35 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pCBFe.336$i%4.18951276@news.sisna.com>
Source record: 72662
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I have driven through Ripon, but would have to drag out a map...

Best calif wines are from napa valley here, or, that is what the wine drinkers tell me--really can't stand the stuff myself :(

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e6e24d$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> ... you still got a bottle of that wine left (napa valley, NOT french, ...
>
> Franzia Merlot from Ripon, CA. Where is Ripon?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3498. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:43:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42e6e6df$0$22206$39cecf19@news.twtelecom.net>
Source record: 72663

Richard Harrison wrote:
> Richard Fry wrote:
> "Richard Clark might have allowed for systems operating above 30 MHz.,
> which include several ham bands, I believe."
>
> I believe so too.
>
> From page 810 of Terman`s 1955 edition:
> "Space-wave Propagation. At frequencies above about 30 MHz, the
> ionosphere is not able to refract energy to earth,

It is comforting to note that the ancient ones were wrong about some
things. It may not happen daily, but it happens a lot at 6 meters,
often at 2 meters, and sometimes even higher.

tom
K0TAR

3499. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 01:53:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <vOBFe.339$nY4.18923666@news.sisna.com>
Source record: 72665

label the frequency determining elements?

Why the xtal and any associated coil or cap used to "pull" the freq in the cmos oscillator... or the pin you take the signal out of on of the decade/hex/octal freq divider...

errr, oh wait, you are speaking of the ancient stuff from museums!
That is simple, the crystal (if present) and/or coil and cap...

hey, you didn't sneak a freq doubler in behind that osc, did ya?

geesh... any cber would know that, well, after he read it...

and you ain't sneaky and tryin' to run off a harmonic of that osc, are ya?

ROFLOL!!!!

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:b9e9c$42e6e27f$471c636a$13836@ALLTEL.NET...
> and label the frequency determining elements. At least that is how I
> remember it...
>
>
> "David G. Nagel" <nagel@core.com> wrote in message
> news:11edj0t1or8jq5a@corp.supernews.com...
>> Draw a Colpitts Oscillator
>>
>> Dave WD9BDZ
>
>

3500. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 02:40:12 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <mjsde1pfdg6vbjm31bm992tmcvdnf8oub7@4ax.com>
Source record: 72666

On Tue, 26 Jul 2005 20:25:50 -0000, "Dave" <noone@nowhere.com> wrote:

>use the one that reaches. don't read any more replies, go do the job, put
>up the antenna and get on the air. if you come back here and read all the
>messages that this question will generate you will never get on the air!

Yes, remember ignorance is bliss. Follow Dave's advice; even better
though, never ask a question here at all. That way, you can spend more
time on the air and that is more important than possibly learning
something about antennas and transmission lines.

3501. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 03:09:20 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11edun23e7qg087@corp.supernews.com>
Source record: 72667

John;

Just what in the hell does your asinine comment on the President of the
United States have to do with questions on an Amateur Radio Test?

For what it's worth I would make the above statement if you were to
reference Bill Clinton or Jimmy Carter.

Dave Nagel WD9BD

John Smith wrote:
> David:
>
> Even now, I would have to look at a diagram... however, once reviewed I could draw you
one for a month or so, before again I would have to look...
>
> That is difficult? Your question is as easy as any on that test!
>
> Now if you asked me to draw you a picture of George Bush and make it realistic--I would
fail forever--gawd, get a clue man if all you want to do is make the test difficult and
allow artists licenses!
>
> John
>
> "David G. Nagel" <nagel@core.com> wrote in message
news:11edj0t1or8jq5a@corp.supernews.com...
>
>>Draw a Colpitts Oscillator
>>
>>Dave WD9BDZ
>>
>>John Smith wrote:
>>
>>>Ben:
>>>
>>>Give us a couple of examples of what you think are difficult, relevant and appropriate
questions, let us see how difficult you think this "rocket science" is, exactly?
>>>
>>>Indeed, if there is something you are having a problem with, there are those here which
can help you...
>>>
>>>John
>>>
>>>"Ben Jackson" <ben@ben.com> wrote in message
news:slrnded6j3.2vm5.ben@saturn.home.ben.com...

>>>
>>>
>>>>On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
>>>>
>>>>
>>>>>John, Why did you go to all that trouble? The test is so easy now a
>>>>>"Cave Man" could pass them.
>>>>
>>>>Actually I think they were dumbed down so a cave man could GRADE them.
>>>>That dictated multiple choice, and it's hard to make a tough multiple
>>>>choice test.
>>>>
>>>>Of course what do I know? I'm just a cave man who passed the tests!
>>>>
>>>>--
>>>>Ben Jackson
>>>><ben@ben.com>
>>>>http://www.ben.com/

3502. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 03:11:04 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11eduq9mig8cr02@corp.supernews.com>
Source record: 72668

John;

The Colpitts and Hartley Oscillators are still current technology.

Dave WD9BDZ

John Smith wrote:

> Ohhh, ask historical questions...
>
> Well, this is the digital age, fat chance of those questions ever getting there again...
>
> However, when the DMV starts asking questions on how to properly groom a horse--and what to do if the horse ever farts in public--you will know that world is ripe for such...
>
> John
>
> "Ham op" <hamop@comcast.net> wrote in message news:hISdnWftrudtTnvfRVn-rA@comcast.com...
>
>>Copy 60 seconds of Morse Code by hand with no errors, corrections or
>>omissions.
>>
>>What's the difference between a Colpitts oscillator and a Hartley
>>Oscillator? Draw schematics of both showing the differences.
>>
>>What is the purpose of a 'swinging choke'?
>>
>>Ah!! Those were the days ....n :-)
>>
>>David G. Nagel wrote:
>>
>>
>>>Draw a Colpitts Oscillator
>>>
>>>Dave WD9BDZ
>>>
>>>John Smith wrote:
>>>
>>>
>>>>Ben:
>>>>
>>>>Give us a couple of examples of what you think are difficult, relevant
>>>>and appropriate questions, let us see how difficult you think this
>>>>"rocket science" is, exactly?
>>>>

>>>>Indeed, if there is something you are having a problem with, there are
>>>>those here which can help you...
>>>>
>>>>John
>>>>
>>>>"Ben Jackson" <ben@ben.com> wrote in message
>>>>news:slrnded6j3.2vm5.ben@saturn.home.ben.com...
>>>>
>>>>
>>>>>On 2005-07-25, jgboyles@aol.com <jgboyles@aol.com> wrote:
>>>>>
>>>>>
>>>>>>John, Why did you go to all that trouble? The test is so easy now a
>>>>>>"Cave Man" could pass them.
>>>>>
>>>>>
>>>>>Actually I think they were dumbed down so a cave man could GRADE them.
>>>>>That dictated multiple choice, and it's hard to make a tough multiple
>>>>>choice test.
>>>>>
>>>>>Of course what do I know? I'm just a cave man who passed the tests!
>>>>>
>>>>>--
>>>>>Ben Jackson
>>>>><ben@ben.com>
>>>>>http://www.ben.com/
>
>>

3503. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 03:12:04 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11edus4st4lgq4c@corp.supernews.com>
Source record: 72669

John;

I'm starting to see a trend in your replies.

Dave WD9BDZ

John Smith wrote:

> Cecil:
>
> <stoopid-puzzled-look-on-face>
>
> Some fools try to use the damn things in power supplies!
>
> Macho men which want a real "tarzan" (the original swinger) in their radio! (arnold probably has one in his cordless phones power supply)
>
> John
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e6e0ec$1_1@spool9-west.superfeed.net...
>
>>Ham op wrote:
>>
>>>What is the purpose of a 'swinging choke'?
>>
>>To get it closer to the antenna feedpoint?
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>>
>>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
>>http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
>>----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3504. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 03:12:49 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11eduths99mgv85@corp.supernews.com>
Source record: 72670

Fred;

Worked for me....

Dave WD9BDZ

Fred W4JLE wrote:

> and label the frequency determining elements. At least that is how I
> remember it...
>
>
> "David G. Nagel" <nagel@core.com> wrote in message
> news:11edj0t1or8jq5a@corp.supernews.com...
>
>>Draw a Colpitts Oscillator
>>
>>Dave WD9BDZ
>
>
>

3505. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 03:14:04 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11eduvt1o56p8e3@corp.supernews.com>
Source record: 72671

John;

No more comments from me.

Dave WD9BDZ

John Smith wrote:

> label the frequency determining elements?
>
> Why the xtal and any associated coil or cap used to "pull" the freq in the cmos oscillator... or the pin you take the signal out of on of the decade/hex/octal freq divider...
>
> errr, oh wait, you are speaking of the ancient stuff from museums!
> That is simple, the crystal (if present) and/or coil and cap...
>
> hey, you didn't sneak a freq doubler in behind that osc, did ya?
>
> geesh... any cber would know that, well, after he read it...
>
> and you ain't sneaky and tryin' to run off a harmonic of that osc, are ya?
>
> ROFLOL!!!!
>
> John
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message news:b9e9c$42e6e27f$471c636a$13836@ALLTEL.NET...
>
>>and label the frequency determining elements. At least that is how I
>>remember it...
>>
>>
>>"David G. Nagel" <nagel@core.com> wrote in message
>>news:11edj0t1or8jq5a@corp.supernews.com...
>>
>>>Draw a Colpitts Oscillator
>>>
>>>Dave WD9BDZ
>>
>>

3506. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 03:46:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <OsDFe.367$d97.19360829@news.sisna.com>
Source record: 72672

David:

Interesting, do you read tea leaves too?

John

"David G. Nagel" <nagel@core.com> wrote in message
news:11edus4st4lgq4c@corp.supernews.com...
> John;
>
> I'm starting to see a trend in your replies.
>
>
> Dave WD9BDZ
>
>
> John Smith wrote:
>
>> Cecil:
>>
>> <stoopid-puzzled-look-on-face>
>>
>> Some fools try to use the damn things in power supplies!
>>
>> Macho men which want a real "tarzan" (the original swinger) in their radio! (arnold
probably has one in his cordless phones power supply)
>>
>> John
>>
>> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e6e0ec$1_1@spool9-west.superfeed.net...
>>
>>>Ham op wrote:
>>>
>>>>What is the purpose of a 'swinging choke'?
>>>
>>>To get it closer to the antenna feedpoint?
>>>--
>>>73, Cecil http://www.qsl.net/w5dxp
>>>
>>>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
>>>http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
>>>----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3507. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:31:16 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <l9aee1djfckjogokmtph31svft8p1dq2lc@4ax.com>
Source record: 72673
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 11:04:05 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Cecil:
>
>Most joking aside, you seen uuencode/uudecode in heavy use up until 1995 when the sudden flood of cheap computers brought all the "riff-raff-know-it-all-regulators" here, since then it tapered until you only see it in use on "binary mostly" chans...
>

Even with uuencode, Usenet had line length limits, and was and is
all text. Any encoded post shows it and proves it. If you want your
file to pass correctly, you limit line length, plain and simple.
Otherwise your uuencode shit is just as lame as your poorly formatted
shit is. Catching up yet? It was the same back then, and hasn't
changed. That makes YOU the one that is talking out of your ass.

There are other reasons as well, but this "Smiff" dolt doesn't even
understand the order of things, he doesn't play well with others. He
thinks everyone else should do as he does, when he is the dolt that is
outside the box. I don't care how fucking long you claim to have been
reading and using NNTP networks. You're an abject idiot.

3508. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:34:14 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <hnaee1lahsbhk4b2n3nud33mn7ti1n1ecq@4ax.com>
Source record: 72674
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 14:04:12 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>Cecil:
>
>ahh, a man which knows good food!
>
>I've got some cheese, crackers and italian salami here, you still got a bottle of that
wine left (napa valley, NOT french, don't bring any fry's either!), we will have lunch!
<burp!>
>

Even a frenchman knows more about Usenet than a twit like you does.

Sorry to all you frenchys out there, I just happen to know what my
lines are.

3509. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:35:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <aXFFe.388$Fy1.20451440@news.sisna.com>
Source record: 72575
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa NumNuts:

Because our incoming post scanner has detected that you have filed a previous post contain much of the same material, opinions, critique or suggestions, we have choose to respond with an automatic response.

Please have a nice day.

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:l9aee1djfckjogokmtph31svft8p1dq2lc@4ax.com...
> On Tue, 26 Jul 2005 11:04:05 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Cecil:
>>
>>Most joking aside, you seen uuencode/uudecode in heavy use up until 1995 when the sudden flood of cheap computers brought all the "riff-raff-know-it-all-regulators" here, since then it tapered until you only see it in use on "binary mostly" chans...
>>
>
> Even with uuencode, Usenet had line length limits, and was and is
> all text. Any encoded post shows it and proves it. If you want your
> file to pass correctly, you limit line length, plain and simple.
> Otherwise your uuencode shit is just as lame as your poorly formatted
> shit is. Catching up yet? It was the same back then, and hasn't
> changed. That makes YOU the one that is talking out of your ass.
>
> There are other reasons as well, but this "Smiff" dolt doesn't even
> understand the order of things, he doesn't play well with others. He
> thinks everyone else should do as he does, when he is the dolt that is
> outside the box. I don't care how fucking long you claim to have been
> reading and using NNTP networks. You're an abject idiot.

3510. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:37:02 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <3uaee1ppc02vjeljq8ldk2qd2uil63l6ps@4ax.com>
Source record: 72576
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 20:06:46 -0400, "David.Shrader"
<W1MCE@comcast.net> Gave us:

>In the words of that greatest american philosopher: "De Ja Vous, all
>over again" --- Y. Berra
>
>It's time to let this issue die.
>

Top posting idiots BOTH of you!

3511. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:41:33 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <11bee1lfce2qapkedhb95bnhdrd2dbpp90@4ax.com>
Source record: 72577
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 20:20:01 -0500, Cecil Moore <w5dxp@hotmail.com>
Gave us:

>John Smith wrote:
>> ... you still got a bottle of that wine left (napa valley, NOT french, ...
>
>Franzia Merlot from Ripon, CA. Where is Ripon?

Beringer (napa) has a nice winery. Looks like a big castle and is
one door down from a superior culinary school.

3512. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:45:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <k4GFe.389$Pu1.20442264@news.sisna.com>
Source record: 72578
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa NimWit:

You don't really mean that, do you?

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:3uaee1ppc02vjeljq8ldk2qd2uil63l6ps@4ax.com...
> On Tue, 26 Jul 2005 20:06:46 -0400, "David.Shrader"
> <W1MCE@comcast.net> Gave us:
>
>>In the words of that greatest american philosopher: "De Ja Vous, all
>>over again" --- Y. Berra
>>
>>It's time to let this issue die.
>>
>
> Top posting idiots BOTH of you!

3513. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 06:58:19 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <fgGFe.390$FB.20054162@news.sisna.com>
Source record: 72579
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Redundant:

You repeated requests are rewarded... this post has been wrapped at 79 chars per line, is that in line with the specs you have presented in your request?

79 is the max which usenet claims to accept, is this appearing upon your screen correctly, after processing by your ancient newsreader?

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:hnaee1lahsbhk4b2n3nud33mn7ti1n1ecq@4ax.com...
> On Tue, 26 Jul 2005 14:04:12 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Cecil:
>>
>>ahh, a man which knows good food!
>>
>>I've got some cheese, crackers and italian salami here, you still got a
>>bottle of that wine left (napa valley, NOT french, don't bring any fry's
>>either!), we will have lunch! <burp!>
>>
>
> Even a frenchman knows more about Usenet than a twit like you does.
>
> Sorry to all you frenchys out there, I just happen to know what my
> lines are.

3514. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 11:01:47 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Fr-dndt-260C9HrfRVn-1g@crocker.com>
Source record: 72580

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:mjsde1pfdg6vbjm31bm992tmcvdnf8oub7@4ax.com...
> On Tue, 26 Jul 2005 20:25:50 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>use the one that reaches. don't read any more replies, go do the job, put
>>up the antenna and get on the air. if you come back here and read all the
>>messages that this question will generate you will never get on the air!
>
> Yes, remember ignorance is bliss. Follow Dave's advice; even better
> though, never ask a question here at all. That way, you can spend more
> time on the air and that is more important than possibly learning
> something about antennas and transmission lines.
>
that of course was not my point... in his case either wire would be fine and
there is no point in discussing which one to use and how to cut it to the
n-th degree as some people do on here.

3515. Re: The Failure of Poor Concepts in Discussing Glare Reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 11:26:01 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e76fad_4@newsfeed.slurp.net>
Source record: 72581

"Tom Ring" wrote
> From page 810 of Terman`s 1955 edition:
> "Space-wave Propagation. At frequencies above about 30 MHz, the
> ionosphere is not able to refract energy to earth, "
> It is comforting to note that the ancient ones were wrong about some
> things. It may not happen daily, but it happens a lot at 6 meters, often
> at 2 meters, and sometimes even higher.

The term "space wave propagation" does not necessarily mean that the wave has to be reflected from the ionosphere (or anything else) to be useful. Microwave systems, FM and TV broadcasting, aeronautical communications, satellites, and many other point-to-point systems at VHF and above all use a space wave. Reflection/refraction of it whether from the ground, structures, or (occasionally) the ionosphere are not always beneficial to those systems.

RF

3516. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 11:34:26 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <ZqydnaQqxu7x7HrfRVn-og@comcast.com>
Source record: 72582
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Bidness wrote:
> On Tue, 26 Jul 2005 20:06:46 -0400, "David.Shrader"
> <W1MCE@comcast.net> Gave us:
>
>
>>In the words of that greatest american philosopher: "De Ja Vous, all
>>over again" --- Y. Berra
>>
>>It's time to let this issue die.
>>
>
>
> Top posting idiots BOTH of you!
NUNYA!! The topic has died of nausium

3517. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 11:42:32 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <z9mdnb6czaHO7nrfRVn-gw@comcast.com>
Source record: 72583

Cecil Moore wrote:

> Ham op wrote:
>
>> What is the purpose of a 'swinging choke'?
>
>
> To get it closer to the antenna feedpoint?

C'mon Cecil, you've been licensed long enough, at least as long as I have, to know that a 'swinging choke' changes the center of percussion on a baseball bat. It allows for a quicker swing. :-)

Now, if your antenna has a large capacitive component as part of it's input ... then quite possibly a swinging choke might help.

But, if your HV power supply needs to limit inrush currents then ...

3518. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 12:15:24 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zvydnbLk_4ya5nrfRVn-ug@comcast.com>
Source record: 72584

Ham op wrote:

> Cecil Moore wrote:
>
>> Ham op wrote:
>>
>>> What is the purpose of a 'swinging choke'?
>>
>>
>>
>> To get it closer to the antenna feedpoint?
>
>
> C'mon Cecil, you've been licensed long enough, at least as long as I
> have, to know that a 'swinging choke' changes the center of percussion
> on a baseball bat. It allows for a quicker swing. :-)
>
> Now, if your antenna has a large capacitive component as part of it's
> input ... then quite possibly a swinging choke might help.
>
> But, if your HV power supply needs to limit inrush currents then ...

Back to my comment. I was interrupted as my XYL was leaving for work.

Seriously, for the younger ham reader. The older AM transmitters, vacuum tube type, required continuous plate current at rated power. It was necessary to keep full plate current even in the absence of audio. A swinging choke, one with an critical inductance value that changed as a function of 'DC' current [variable reluctance] , as the first component of a HV supply, simplified the requirements on the other components of the HV filter circuit. Namely, the first input capacitor. High power HV supplies were typically designed using a double 'L' filter, choke input. The first choke provided better performance if it had a variable reactance as a function of rectified current. The minimum value of reactance [critical inductance] was a feature of the 'swinging choke'.

Ah!! The good old days. Radios were radios that worked all tv sets, stereos systems, and am broadcast receivers. I ran a 6AG7/6L6 at 10 watts on 15 meters CW and worked ALL tv sets [ALL] within 1/2 mile. I used a good quality DRAKE LP filter, a Pi network tuner, and had very low harmonic output and still worked all TV sets.

Question to the younger crowd ... Why did I have TVI?

Cecil, you should not answer. But, I suspect you had the same experience. Note: Cecil and I both have formal technical training.

3519. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 13:21:20 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <hh2fe1ptee1p64otnp5isdtqibpjctb17b@4ax.com>
Source record: 72585
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On 26 Jul 2005 23:48:07 GMT, andrew@a17 (Andrew Gabriel) wrote:

>In article <l9gde1dmoud9jdkeadrerlhreetsk63a8s@4ax.com>,
> Jock. <real_class_a2003@yahoo.fr> writes:
>> On 26 Jul 2005 17:57:48 GMT, andrew@a17 (Andrew Gabriel) wrote:
>>
>>>In article <42e6733f$1_1@spool9-west.superfeed.net>,
>>> Cecil Moore <w5dxp@hotmail.com> writes:
>>>> Shame on you, Reg, after what Jacques Chirac said about
>>>> English food.
>>>
>>>Was that before or after an English resturant won both
>>>the 2004 best resturant in Europe and best resturant in
>>>the World titles? ;-)
>>
>> They were probably French or Italian restaurants.
>
>No. There are some French and possibily other country's dishes on
>the menu, but it's most certainly not even the tinyest bit a French
>or Italian Resturant.
>
>http://www.fatduck.co.uk/
>
>The tasting menu is unique to The Fat Duck/Heston Blumenthal AFAIK.

What an awful website!

Strange that most of their fare is French.

73 de Jock.
--

The English are not very spiritual people, so they
invented cricket to give them some idea of eternity.
- George Bernard Shaw

3520. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 13:50:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e7921a$1_2@spool9-west.superfeed.net>
Source record: 72586

Ham op wrote:
> Question to the younger crowd ... Why did I have TVI?
>
> Cecil, you should not answer. But, I suspect you had the same
> experience. Note: Cecil and I both have formal technical training.

Back around 1954, I put 600 feet of copperweld in the air,
fed by a modified ART-13 running 500 watts. The lights
in my room would dim during key down.

The closest TV transmitter was 90 miles away in Houston.
Madisonville, TX had no TV cable system at the time. When
I fired up, I wiped out TV reception for a good 100 square
miles. My parents took the ART-13 away from me, made me take
down the 600 ft. random wire, and go back to my 40w Globe
Scout and 40m dipole. :-(

I also came through rather distorted on a local church's
sound system. Some of the congregation thought that God
was speaking to them in an unknown tongue. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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3521. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 14:44:35 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <r96fe1llu4sgie5cal2cpm55nqvg1gngvm@4ax.com>
Source record: 72587

I like the 75 ohm because it is a good match to the dipole. If you do the 300 ohm line and make the driven element a folded dipole out of the same twin lead, it will also be a good match.

Usually I have found it works well even without a good match on a dipole because the twin lead is generally a low loss line and the radiation from the feed line does not really reduce the usability of the antenna.

A poor match will be inclined to generate TVI and sometime get RF back into the shack. Also, some of the newer radios will not drive anything other than 50 ohms.

Most likely you have a tuner or you would not be considering a balanced line anyway.

If you go with the 75 ohm scheme and feed it directly from a "modern" transceiver it will probably still work pretty well but it will be likely to generate TVI.

If luck is on your side, the 300 ohm feed MIGHT work too, but not as you intended.

Whatever you choose, start at low power & work your way up.

I cannot figure out what you said that generated so many juvenile responses. It sounds like a reasonable question to me.

On Tue, 26 Jul 2005 15:40:38 -0400, Eric Delongchamp <ricdelon@cyberbeach.net> wrote:

>
>
>
>
>Hi !
>
>
>
>I want to put up a 40m dipole antenna and my question is what a
>transmission line to use, I have two defferent type of twin lead to
>choose from, one is 75 ohm and a TV 300 ohm line. I'm using Yeasu 747
> GX and MFJ 949 E for equiment. Thanks
>
>
>
>Eric D.

3522. Re: MAKE LOADS OF MONEY FOR FREE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 15:22:18 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7f878$42e7a6dc$471c636a$25277@ALLTEL.NET>
Source record: 72588

I have forwarded your income claims to the IRS so you may be properly taxed
on your windfall.

"Thomas Hendric" <hendric@aol.com> wrote in message
news:GgIFe.231386$Vo6.14430@fe3.news.blueyonder.co.uk...
> MAKE THOUSANDS!!!
>
> I found this on a bulletin board and decided to try it: I don't care

3523. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 15:33:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e7aa65$1_1@spool9-west.superfeed.net>
Source record: 72589

John Ferrell wrote:
> If luck is on your side, the 300 ohm feed MIGHT work too, but not as
> you intended.

Ever noticed that luck favors the knowledgeable?

Multiples of 1/2WL length will work for any characteristic
impedance. The 300 ohm twinlead is less lossy than 72 ohm
twinlead. If 64 ft. is a convenient length for his feedline,
300 ohm twinlead is a good choice for a 1/2WL dipole probably
not requiring a tuner. An added advantage is that it may also
work well with a tuner on some of the higher frequencies.
--
73, Cecil http://www.qsl.net/w5dxp

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3524. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 15:52:58 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e7ae39_5@newsfeed.slurp.net>
Source record: 72590

"John Ferrell" wrote:
> A poor match will be inclined to generate TVI...

Could somebody please explain why feedline SWR should produce any more general TVI in the neighborhood than if the match is perfect?

If the match is perfect, the antenna radiates all the power from the tx (less line loss). If anything else radiates part of that tx power (the feedline, you say), the total radiated power still can be no more than when the antenna radiates all of it. So if tx harmonic levels are the same in both cases, why should "feedline radiation" have much affect on TV receivers in the neighborhood?

Are you talking about some very localized effects (tx feedline running next to your own TV set or TV antenna, etc)?

RF

3525. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 15:59:59 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <YbOFe.20689$Eo.5675@fed1read04>
Source record: 72591

----- Original Message -----
From: "Dave Platt" <dplatt@radagast.org>
Newsgroups: rec.radio.amateur.antenna
Sent: Tuesday, July 26, 2005 8:08 PM
Subject: Re: Raising a 40m dipole.....It's up! Now what?
>
<snip>
>
> If the ladder line is cut to be an integral number of electrical
> half-wavelengths, it would mirror the antenna feedpoint impedance to
> the coax. There's be a good match, the SWR on the coax would be
> somewhere between 1:1 and 1.5:1, and the rig would quite possibly be
> happy without even needing its internal ATU. This is Good.
>
> On the other hand, if the ladder line is an odd number of
> quarter-wavelengths, it would transform the antenna's feedpoint
> impedance up to a much higher value (in excess of 1000 ohms). This
> would result in a severe mismatch at the ladder-line/coax joining
> point, and a high SWR on the coax. I'd expect both high losses, and a
> significant amount of RF appearing on the coax braid (the coiled-coax
> choke balun wouldn't have enough choking reactance). The rig's ATU
> might not be able to match this load at all. This would be Bad.
>
<snip>

Would that explain why my tuner can only get a 2.6:1 match on 12m
with a 50 foot section of ladder line? Here's my (probably wrong) math:

((246/24.940)(0.92)5)= 45'4.5"

That's 246 / Freq x Velocity Factor x 5 (odd quarter wavelength)

On a related issue, my lowest SWR went from a broad 1.6:1 to a
narrow 1.1:1 after it stopped raining. Was that the wet asphault shingles
effecting the ladder line or just the wet ladder line? If it's the shingles,
I could elevate the line but either way, my tuner handles it. Should I care?

I've now plotted the SWR and (dry), the curve is nearly the same
as it was before I raised the antenna - it's just centered about 45 khz
higher and a bit narrower. This is with the tuner in bypass mode.

Thanks for all the help, guys!

Ken
--
Just my 2... 73 es gd dx de Ken KG WX

Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

3526. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 16:53:25 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <i_OFe.47$xG1.444551@news.sisna.com>
Source record: 72595

Cecil:

Ahhh, the "control freak" parents, I remember that generation of parents well--I had a fully functional set of them myself (frown.)

With me it was tesla coils. But same result, constant complaining from citizens I share this ether with--about interference with tv, radios, guitar amps, etc... Made me wonder how Nicola Tesla got his start?

It was when I started winding them of heavy gauge wire on carpet tubes (massive varnished cardboard tubes used to roll up large rugs) and using banks of 15KV neon sign transformers with humongous caps wound from yards of aluminum foil and visqueen plastic sheet with spark gaps constructed from tungsten alloy to withstand the punishment--that the real trouble began, fuses began blowing and corona discharges yards long... that kind of "light show" and "booming/snapping" of the sparkgap was difficult to cloak from sight.

I became addicted to the smell of ozone, more addictive than heroin to a "rf nut!"

You and I are kindred spirits in our natural gift to be annoying without trying... :(

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e7921a$1_2@spool9-west.superfeed.net...
> Ham op wrote:
>> Question to the younger crowd ... Why did I have TVI?
>>
>> Cecil, you should not answer. But, I suspect you had the same experience.
>> Note: Cecil and I both have formal technical training.
>
> Back around 1954, I put 600 feet of copperweld in the air,
> fed by a modified ART-13 running 500 watts. The lights
> in my room would dim during key down.
>
> The closest TV transmitter was 90 miles away in Houston.
> Madisonville, TX had no TV cable system at the time. When
> I fired up, I wiped out TV reception for a good 100 square
> miles. My parents took the ART-13 away from me, made me take
> down the 600 ft. random wire, and go back to my 40w Globe
> Scout and 40m dipole. :-(
>
> I also came through rather distorted on a local church's
> sound system. Some of the congregation thought that God

> was speaking to them in an unknown tongue. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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3527. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 17:18:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e7c2de$1_2@spool9-west.superfeed.net>
Source record: 72592

Ken Bessler wrote:
> ((246/24.940)(0.92)5)= 45'4.5"
>
> That's 246 / Freq x Velocity Factor x 5 (odd quarter wavelength)

Calculated values rarely ever take all the variables into account.
Virtually all calculated values have to be adjusted, i.e. cut
and tried, to achieve the desired results. What SWR do you get
when you increase the length by one foot? What SWR do you get
when you decrease the length by one foot?

> On a related issue, my lowest SWR went from a broad 1.6:1 to a
> narrow 1.1:1 after it stopped raining. Was that the wet asphault shingles
> effecting the ladder line or just the wet ladder line? If it's the shingles,
> I could elevate the line but either way, my tuner handles it. Should I care?

Do you care? :-) It is a good idea to keep ladder-line a few
inches away from anything that might adversely affect it. That
includes wet asphalt shingles.
--
73, Cecil http://www.qsl.net/w5dxp

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3528. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 17:39:20 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <lKWdnXfIG5xqW3rfRVn-vg@comcast.com>
Source record: 72593

Cecil Moore wrote:

SNIPPED
>
> Back around 1954, I put 600 feet of copperweld in the air,
> fed by a modified ART-13 running 500 watts. The lights
> in my room would dim during key down.
>
> The closest TV transmitter was 90 miles away in Houston.
> Madisonville, TX had no TV cable system at the time. When
> I fired up, I wiped out TV reception for a good 100 square
> miles. My parents took the ART-13 away from me, made me take
> down the 600 ft. random wire, and go back to my 40w Globe
> Scout and 40m dipole. :-(
>
> I also came through rather distorted on a local church's
> sound system. Some of the congregation thought that God
> was speaking to them in an unknown tongue. :-)

Today's newer breed of hams will never have such marvelous experiences.

Funny thing though, even though I earned the WATV interference award on
my first weekend it took almost two weeks to work my 'Elmer' across town!!

3529. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 18:24:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11efka9qbrmu0fb@corp.supernews.com>
Source record: 72594

Richard Fry wrote:
> "John Ferrell" wrote:
>
>> A poor match will be inclined to generate TVI...
>
> _________________
>
> Could somebody please explain why feedline SWR should produce any more
> general TVI in the neighborhood than if the match is perfect?
>
> If the match is perfect, the antenna radiates all the power from the tx
> (less line loss). If anything else radiates part of that tx power (the
> feedline, you say), the total radiated power still can be no more than
> when the antenna radiates all of it. So if tx harmonic levels are the
> same in both cases, why should "feedline radiation" have much affect on
> TV receivers in the neighborhood?
>
> Are you talking about some very localized effects (tx feedline running
> next to your own TV set or TV antenna, etc)?
>
> RF

It sounds like you've confused feedline SWR with feedline radiation. Those are two different effects. A line can have 1:1 SWR and radiate, or 10:1 and not radiate. SWR is determined solely by the differential load impedance and the line Z0. Feedline radiation is determined only by the amount and distribution of common mode current on the transmission line and of course its length.

The line SWR can be altered only by impedance matching at the load or changing the line's Z0. Feedline radiation is reduced by using one or more current baluns (common mode chokes) or a tuner with an inherently balanced output such as link coupling. While changing the feedline radiation can change the SWR (by changing the radiating part of the antenna), changing the SWR by altering the differential load impedance has no effect on the common mode current and hence the line radiation. (Anything which alters the common mode impedance of the antenna, which depending on its design a differential matching circuit might do, can change the line radiation. But it's not because of the change in SWR; it's because of how the matching circuit alters the common mode impedance.)

Only feedline radiation is associated with TVI; SWR isn't.

Feedline radiation can cause increased TVI and other RFI if the transmission line is routed in a way that it can couple to power lines,

telephone lines, TV cable, and other conductors which take RF into homes and close to TV sets and other electronic devices. (I've had more trouble with modern telephones than anything else.) Radiating antennas can, of course, do the same thing and to an even greater degree -- an attic transmitting antenna can often cause problems, for example. But feedline radiation can increase the RFI potential of an antenna that's otherwise far away from other conductors. The problem is simply one of effectively bringing part of the antenna into the house. It is, as you say, a localized effect, although it can affect a neighborhood by conduction and radiation from the conductors into which the feedline radiation is coupling.

Roy Lewallen, W7EL

3530. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 18:30:55 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JpQFe.59$K53.547963@news.sisna.com>
Source record: 72596

Roy:

Even if you have me bit-bucketed, thanks for that info.

I am one who was ignorant to what you present in your text--I always expected increased line radiation with a mismatch. Now that you have stated it in text, it is plain a balun would prevent most if not all of this...

I will re-evaluate and brush up on what I have certainly missed before.

Warmest regards,
John

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11efka9qbrmu0fb@corp.supernews.com...
> Richard Fry wrote:
>> "John Ferrell" wrote:
>>
>>> A poor match will be inclined to generate TVI...
>>
>> _________________
>>
>> Could somebody please explain why feedline SWR should produce any more
>> general TVI in the neighborhood than if the match is perfect?
>>
>> If the match is perfect, the antenna radiates all the power from the tx
>> (less line loss). If anything else radiates part of that tx power (the
>> feedline, you say), the total radiated power still can be no more than when
>> the antenna radiates all of it. So if tx harmonic levels are the same in
>> both cases, why should "feedline radiation" have much affect on TV receivers
>> in the neighborhood?
>>
>> Are you talking about some very localized effects (tx feedline running next
>> to your own TV set or TV antenna, etc)?
>>
>> RF
>
> It sounds like you've confused feedline SWR with feedline radiation. Those
> are two different effects. A line can have 1:1 SWR and radiate, or 10:1 and
> not radiate. SWR is determined solely by the differential load impedance and
> the line Z0. Feedline radiation is determined only by the amount and
> distribution of common mode current on the transmission line and of course
> its length.
>
> The line SWR can be altered only by impedance matching at the load or
> changing the line's Z0. Feedline radiation is reduced by using one or more

> current baluns (common mode chokes) or a tuner with an inherently balanced
> output such as link coupling. While changing the feedline radiation can
> change the SWR (by changing the radiating part of the antenna), changing the
> SWR by altering the differential load impedance has no effect on the common
> mode current and hence the line radiation. (Anything which alters the common
> mode impedance of the antenna, which depending on its design a differential
> matching circuit might do, can change the line radiation. But it's not
> because of the change in SWR; it's because of how the matching circuit alters
> the common mode impedance.)
>
> Only feedline radiation is associated with TVI; SWR isn't.
>
> Feedline radiation can cause increased TVI and other RFI if the transmission
> line is routed in a way that it can couple to power lines, telephone lines,
> TV cable, and other conductors which take RF into homes and close to TV sets
> and other electronic devices. (I've had more trouble with modern telephones
> than anything else.) Radiating antennas can, of course, do the same thing and
> to an even greater degree -- an attic transmitting antenna can often cause
> problems, for example. But feedline radiation can increase the RFI potential
> of an antenna that's otherwise far away from other conductors. The problem is
> simply one of effectively bringing part of the antenna into the house. It is,
> as you say, a localized effect, although it can affect a neighborhood by
> conduction and radiation from the conductors into which the feedline
> radiation is coupling.
>
> Roy Lewallen, W7EL

3531. Vertical (Butternut, Titan) vs Carolina Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 19:00:25 UTC
From: Joe Guthart <jguthart@comcast.net>
Message-ID: <iuGdneiScZRXRHrfRVn-3A@comcast.com>
Source record: 72597

I'm starting to explore getting a new antenna for HF ... thus far the options that I've looked at are a vertical ground mount with a counterpoise kit (can't really do radials in my yard). The models that have come up often are the Butternut HF9V and the Gap Titan. Both seem similar. The Butternut's are more expensive and the Gap Titan seems to have good reviews and then has a few folks who say it's worthless. Alternatively, I've looked at a horizontal such as a Carolina Windom. The problem I have with this is that I only have one large tree to tie off to. To do a horizontal right, I would have to have to use a mast for the other end. I've also heard and seen several people that have used some of the break apart masts to do this and they have ended up with a broken mast.

Any advice is greatly appreciated. Thanks.

3532. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 19:34:31 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <blRFe.16404$Hd4.14395@newsfe2-gui.ntli.net>
Source record: 72598
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Bidness wrote:
> On Tue, 26 Jul 2005 20:06:46 -0400, "David.Shrader"
> <W1MCE@comcast.net> Gave us:
>
>
>>In the words of that greatest american philosopher: "De Ja Vous, all
>>over again" --- Y. Berra
>>
>>It's time to let this issue die.
>>
>
>
> Top posting idiots BOTH of you!
One, and possibly the only good thing about top posting is that it
pisses you off.
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3533. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 19:36:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <423a6$42e7e31a$471c636a$12707@ALLTEL.NET>
Source record: 72599

John, the digital age can come to an end in a heartbeat. An EMP pulse may well wipe out the computers.

CW which requires nothing but the human mind to get data through will be with us to the end of humanity.

As hams we need to be able to provide communications under the worst imaginable scenario. I, and many of the hams on here could in short order build a simple transmitter and receiver capable of CW operation and get a message through. What if no one on the other end is capable of receiving the message?

I guess you can ride like Paul Revere as your car will no longer run unless you drive an old pre-computer model. The DMV may indeed be asking questions as to what to do when your horse takes a dump in public.

I don't care if the FCC and the rest of the world makes stupid decisions, I have no problems with anyone who enters amateur radio via slow/no code. My objection is with sacrificing a skill that may be required to save lives and property for the sake of increasing numbers.

Too bad a neat skill set was viewed as a determent...

"John Smith" <assemblywizard@gmail.com> wrote in message news:1YAFe.330$hW4.18857004@news.sisna.com...
> Ohhh, ask historical questions...
>
> Well, this is the digital age, fat chance of those questions ever getting there again...
>
> However, when the DMV starts asking questions on how to properly groom a horse--and what to do if the horse ever farts in public--you will know that world is ripe for such...
>
> John

3534. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 19:39:06 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <68379$42e7e31c$471c636a$12707@ALLTEL.NET>
Source record: 72600

In a colpitts oscillator? It works the same if you use solid state or hollow state.

"John Smith" <assemblywizard@gmail.com> wrote in message news:vOBFe.339$nY4.18923666@news.sisna.com...
> label the frequency determining elements?
>
> Why the xtal and any associated coil or cap used to "pull" the freq in the cmos oscillator... or the pin you take the signal out of on of the decade/hex/octal freq divider...
>
> errr, oh wait, you are speaking of the ancient stuff from museums!
> That is simple, the crystal (if present) and/or coil and cap...
>
> hey, you didn't sneak a freq doubler in behind that osc, did ya?
>
> geesh... any cber would know that, well, after he read it...
>
> and you ain't sneaky and tryin' to run off a harmonic of that osc, are ya?
>
> ROFLOL!!!!
>
> John
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message news:b9e9c$42e6e27f$471c636a$13836@ALLTEL.NET...
> > and label the frequency determining elements. At least that is how I
> > remember it...
> >
> >
> > "David G. Nagel" <nagel@core.com> wrote in message
> > news:11edj0t1or8jq5a@corp.supernews.com...
> >> Draw a Colpitts Oscillator
> >>
> >> Dave WD9BDZ
> >
> >

3535. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 19:52:49 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <963d0$42e7e61f$471c636a$3244@ALLTEL.NET>
Source record: 72601

A buddy of mine and I had some buzzers that were used as signaling devices on the city busses. We discovered that when we activated them they played hell with an AM radio. We decided that if we hooked a bunch of wire to each terminal of the buzzer contacts we might be able to send messages between our houses. He lived four doors down. Armed with the buzzers and a couple of Philco radios we were in business.

Seems we had rediscovered spark gap transmitters much to the consternation of the neighbors. All went well until our neighbor six doors down, John Cummings W8DSL, took umbrage to our mode of transmission. Seems he could read code even better then we could and soon ferreted us out.

For a couple of ten year olds it was a lot of fun messing up Stella Dallas et al that our moms listened to.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42e7921a$1_2@spool9-west.superfeed.net...
> Ham op wrote:
> > Question to the younger crowd ... Why did I have TVI?
> >
> > Cecil, you should not answer. But, I suspect you had the same
> > experience. Note: Cecil and I both have formal technical training.
>
> Back around 1954, I put 600 feet of copperweld in the air,
> fed by a modified ART-13 running 500 watts. The lights
> in my room would dim during key down.
>
> The closest TV transmitter was 90 miles away in Houston.
> Madisonville, TX had no TV cable system at the time. When
> I fired up, I wiped out TV reception for a good 100 square
> miles. My parents took the ART-13 away from me, made me take
> down the 600 ft. random wire, and go back to my 40w Globe
> Scout and 40m dipole. :-(
>
> I also came through rather distorted on a local church's
> sound system. Some of the congregation thought that God
> was speaking to them in an unknown tongue. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups

> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3536. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 19:59:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2JRFe.75$dP4.692355@news.sisna.com>
Source record: 72605

Fred:

I have nothing against those who wish to maintain ancient technology for when the "madmax age" (I think I even look a bit like Mel Gibson--too bad the women can't see the similarity!) arrives we will be prepared, I am just against FORCING people to do this.

I am against requiring them in being proficient in sending smoke signals, shoot arrows with messages attached, using carrier pidgeon or being able to pass messages between villages by "african message drum" also, if we get there, we will pick it up fast enough...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:423a6$42e7e31a$471c636a$12707@ALLTEL.NET...
> John, the digital age can come to an end in a heartbeat. An EMP pulse may
> well wipe out the computers.
>
> CW which requires nothing but the human mind to get data through will be
> with us to the end of humanity.
>
> As hams we need to be able to provide communications under the worst
> imaginable scenario. I, and many of the hams on here could in short order
> build a simple transmitter and receiver capable of CW operation and get a
> message through. What if no one on the other end is capable of receiving the
> message?
>
> I guess you can ride like Paul Revere as your car will no longer run unless
> you drive an old pre-computer model. The DMV may indeed be asking questions
> as to what to do when your horse takes a dump in public.
>
> I don't care if the FCC and the rest of the world makes stupid decisions, I
> have no problems with anyone who enters amateur radio via slow/no code. My
> objection is with sacrificing a skill that may be required to save lives and
> property for the sake of increasing numbers.
>
> Too bad a neat skill set was viewed as a determent...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:1YAFe.330$hW4.18857004@news.sisna.com...
>> Ohhh, ask historical questions...
>>
>> Well, this is the digital age, fat chance of those questions ever getting
> there again...

>>
>> However, when the DMV starts asking questions on how to properly groom a
> horse--and what to do if the horse ever farts in public--you will know that
> world is ripe for such...
>>
>> John
>
>

3537. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 20:01:23 UTC
From: dplatt@radagast.org
Message-ID: <11efq0jlporii87@corp.supernews.com>
Source record: 72602

In article <42e7ae39_5@newsfeed.slurp.net>, Richard Fry <rfry@adams.net> wrote:

>Could somebody please explain why feedline SWR should produce any more
>general TVI in the neighborhood than if the match is perfect?

My guess is that this belief is true in some cases... specifically the
following:

- You have a dipole, or other balanced antenna
- You're feeding it with coax
- The dipole has a feedpoint impedance which is high (resistive
and/or reactive) at the frequency of interest
- You don't have a balun at the feedpoint, or your balun has only a
modest amount of choking reactance
- Your coax is somewhere near a half-wavelength long (or a multiple
thereof) from the antenna to the point at which its first ground
occurs.

In this situation, you're likely to have a lot of RF on the outside of
the coax, as its braid will present a path for the ground-side current
which is significantly less than that of the antenna. You could end
up with "RF in the shack" problems, or the various other problems
which can result from having high levels of RF flowing near other
consumer-electronics devices.

If your feedline happens to be parallel to a cable-TV line, its
radiation may tend to induce a significant RF current on the outside
of the cable-TV coax, and might bleed to the inside. This could
result in fundamental-overload problems in the TV or distribution
amplifier.

If your feedline runs near a metal gutter or downspout, or near a
stucco wall with chicken-wire mesh in it, it might induce strong
enough RF currents to cause rectification noise in the joints, and the
generation of undesired harmonics of your transmit frequency which
might fall into the TV frequency band. Similar generation of
harmonics can occur, I gather, if you push a ferrite-core balun too
hard, and saturate the ferrite.

If I recall correctly, 6-meter operation is notorious for causing RFI
due to both fundamental overload (Channel 2 is often affected due to
its proximity to the 6-meter band) and to second-harmonic spurs
falling in the FM band.

If you've got RF coming back down into the shack, you might have some
of the RF-ground current getting into your household AC power ground,
and bleeding into the TV sets via their line cords.

All of these are things which can occur with any antenna, of course... they're just exaggerated (to whatever extent) by RF-on-the-coax due to the RF's greater proximity to the affected TVs.

In all of these cases, I'd expect problems to be more apparent for nearby TV sets (same building) than those far away. In urban areas, with people living in apartments or condos, the "neighborhood" can consist of quite a few people living in individual households within 100 feet of the transmitter and antenna.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3538. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 20:03:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HMRFe.76$yT7.345221@news.sisna.com>
Source record: 72604

actually, it takes a bit of wave shaping to get that square, saw tooth or ramp
into a decent sinewave out of most of the digital signal sources osc's...

you don't need to start with a perfect sine being produced at the osc level...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:68379$42e7e31c$471c636a$12707@ALLTEL.NET...
> In a colpitts oscillator? It works the same if you use solid state or hollow
> state.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:vOBFe.339$nY4.18923666@news.sisna.com...
>> label the frequency determining elements?
>>
>> Why the xtal and any associated coil or cap used to "pull" the freq in the
> cmos oscillator... or the pin you take the signal out of on of the
> decade/hex/octal freq divider...
>>
>> errr, oh wait, you are speaking of the ancient stuff from museums!
>> That is simple, the crystal (if present) and/or coil and cap...
>>
>> hey, you didn't sneak a freq doubler in behind that osc, did ya?
>>
>> geesh... any cber would know that, well, after he read it...
>>
>> and you ain't sneaky and tryin' to run off a harmonic of that osc, are ya?
>>
>> ROFLOL!!!!
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>> John
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>>
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:b9e9c$42e6e27f$471c636a$13836@ALLTEL.NET...
>> > and label the frequency determining elements. At least that is how I
>> > remember it...
>> >
>> >
>> > "David G. Nagel" <nagel@core.com> wrote in message
>> > news:11edj0t1or8jq5a@corp.supernews.com...
>> >> Draw a Colpitts Oscillator
>> >>

>> >> Dave WD9BDZ
>> >
>> >
>
>

3539. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 20:15:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dc8q12$o9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72603

John, this business about problems caused by radiation from feedlines is very much exaggerated. It occurs far less frequently than it is mentioned on this newsgroups. It's just something to waffle about.

It's perfectly obvious far more near-field interference occurs due to radiation from the ANTENNA. Especially when the beam is pointing towards the house.

The antenna is designed and intended to radiate. Whereas the feedline only does it because of occasional imperfections and by accident. Most of the time it is not detectable as interference from either antenna or the line.

{Actually, it is nonsense to discuss things in terms of separate radiation from line and antenna. I am obliged to do so here to make myself understood and avoid accusations of trolling.}

Reg

3540. Re: Transmission Line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 20:27:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <d7SFe.80$dz4.673856@news.sisna.com>
Source record: 72606

Reg:

I think I got you on this point, my observations have indicated that some times the antenna is REALLY the antenna, however there are other times when the "antenna" can consist of BOTH the feedline and the antenna...

Long time ago I did some experiments with a fsm which could only "see" the coax and not the antenna--I introduced mismatches at the point between antenna and coax--perhaps by accident there was a correlation noted?, each time a mismatch was seen to introduce increased line radiation on the fsm, I just thought this would always be the case, now I am placed back in doubt...

... thanks reg, but don't let them give you that "TROLL LICENSE" though, you don't deserve it!

Besides, there is element 1 which has to passed first, the ability to send "TROLL MORSE" at "twenty-troll-words-a-minute." You'd never succeed reg :(

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dc8q12$o9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> John, this business about problems caused by radiation from feedlines
> is very much exaggerated. It occurs far less frequently than it is
> mentioned on this newsgroups. It's just something to waffle about.
>
> It's perfectly obvious far more near-field interference occurs due to
> radiation from the ANTENNA. Especially when the beam is pointing
> towards the house.
>
> The antenna is designed and intended to radiate. Whereas the feedline
> only does it because of occasional imperfections and by accident.
> Most of the time it is not detectable as interference from either
> antenna or the line.
>
> {Actually, it is nonsense to discuss things in terms of separate
> radiation from line and antenna. I am obliged to do so here to make
> myself understood and avoid accusations of trolling.}
> ----
> Reg
>
>

3541. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 21:50:11 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11eg0cm98q0qt89@corp.supernews.com>
Source record: 72607

If you think back to the first Star Trek movie it took good old
fashioned Morse Code to communicate with "V'ger" (Voyager)

Dave N

Fred W4JLE wrote:
> John, the digital age can come to an end in a heartbeat. An EMP pulse may
> well wipe out the computers.
>
> CW which requires nothing but the human mind to get data through will be
> with us to the end of humanity.
>
> As hams we need to be able to provide communications under the worst
> imaginable scenario. I, and many of the hams on here could in short order
> build a simple transmitter and receiver capable of CW operation and get a
> message through. What if no one on the other end is capable of receiving the
> message?
>
> I guess you can ride like Paul Revere as your car will no longer run unless
> you drive an old pre-computer model. The DMV may indeed be asking questions
> as to what to do when your horse takes a dump in public.
>
> I don't care if the FCC and the rest of the world makes stupid decisions, I
> have no problems with anyone who enters amateur radio via slow/no code. My
> objection is with sacrificing a skill that may be required to save lives and
> property for the sake of increasing numbers.
>
> Too bad a neat skill set was viewed as a determent...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:1YAFe.330$hW4.18857004@news.sisna.com...
>
>>Ohhh, ask historical questions...
>>
>>Well, this is the digital age, fat chance of those questions ever getting
>
> there again...
>
>>However, when the DMV starts asking questions on how to properly groom a
>
> horse--and what to do if the horse ever farts in public--you will know that
> world is ripe for such...
>
>>John
>

>
>

3542. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 21:58:34 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a4131$42e8039d$471c636a$6788@ALLTEL.NET>
Source record: 72608

John, no one has ever been "forced" to learn CW to become a ham. Everything in life has a price of admission. You may choose to pay the price or not.

I have never heard of "press gangs" capturing people and forcing them to learn CW.

Neither have I seen a movie titled "Two Years Before The Key"

Like I say, I don't have a dog in the code/nocode fight. I personally feel that it is a necessary tool. YMMV

"John Smith" <assemblywizard@gmail.com> wrote in message news:2JRFe.75$dP4.692355@news.sisna.com...
> Fred:
>
> I have nothing against those who wish to maintain ancient technology for when
> the "madmax age" (I think I even look a bit like Mel Gibson--too bad the women
> can't see the similarity!) arrives we will be prepared, I am just against
> FORCING people to do this.
>
> I am against requiring them in being proficient in sending smoke signals, shoot
> arrows with messages attached, using carrier pidgeon or being able to pass
> messages between villages by "african message drum" also, if we get there, we
> will pick it up fast enough...
>
> John
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:423a6$42e7e31a$471c636a$12707@ALLTEL.NET...
> > John, the digital age can come to an end in a heartbeat. An EMP pulse may
> > well wipe out the computers.
> >
> > CW which requires nothing but the human mind to get data through will be
> > with us to the end of humanity.
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> > As hams we need to be able to provide communications under the worst
> > imaginable scenario. I, and many of the hams on here could in short order
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> > message through. What if no one on the other end is capable of receiving
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> > you drive an old pre-computer model. The DMV may indeed be asking
questions
> > as to what to do when your horse takes a dump in public.
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> > I don't care if the FCC and the rest of the world makes stupid
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My
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> > "John Smith" <assemblywizard@gmail.com> wrote in message
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> >> However, when the DMV starts asking questions on how to properly groom
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> > horse--and what to do if the horse ever farts in public--you will know
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> > world is ripe for such...
> >>
> >> John
> >
> >
>
>

3543. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 22:08:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <8CTFe.90$y96.882728@news.sisna.com>
Source record: 72611

Fred:

There is no "price of admission" which needs be paid, the tests should reflect a logical, necessary "instruction" for what a guy/gal will need to get a radio and enter the hobby on level which is inline with his/her interests...

Morse has no place in this age, few will ever be interested in a key... if they are, no one will stop them from picking one up.

Long live amateur radio, and long stay dead the key...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:a4131$42e8039d$471c636a$6788@ALLTEL.NET...
> John, no one has ever been "forced" to learn CW to become a ham. Everything
> in life has a price of admission. You may choose to pay the price or not.
>
> I have never heard of "press gangs" capturing people and forcing them to
> learn CW.
>
> Neither have I seen a movie titled "Two Years Before The Key"
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> Like I say, I don't have a dog in the code/nocode fight. I personally feel
> that it is a necessary tool. YMMV
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> "John Smith" <assemblywizard@gmail.com> wrote in message
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>> Fred:
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>> I have nothing against those who wish to maintain ancient technology for
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>> the "madmax age" (I think I even look a bit like Mel Gibson--too bad the
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>> can't see the similarity!) arrives we will be prepared, I am just against
>> FORCING people to do this.
>>
>> I am against requiring them in being proficient in sending smoke signals,
> shoot
>> arrows with messages attached, using carrier pidgeon or being able to pass
>> messages between villages by "african message drum" also, if we get there,
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>> John

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>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:423a6$42e7e31a$471c636a$12707@ALLTEL.NET...
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>> > "John Smith" <assemblywizard@gmail.com> wrote in message
>> > news:1YAFe.330$hW4.18857004@news.sisna.com...
>> >> Ohhh, ask historical questions...
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>> >> Well, this is the digital age, fat chance of those questions ever
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>> > there again...
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>> >> However, when the DMV starts asking questions on how to properly groom
> a
>> > horse--and what to do if the horse ever farts in public--you will know
> that
>> > world is ripe for such...
>> >>
>> >> John

>> >
>> >
>>
>>
>
>

3544. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 22:43:34 UTC
From: Owen <owen@no.where>
Message-ID: <1f2ge1pgrveelvgbslnrc4fu7ldkvp9qbj@4ax.com>
Source record: 72609

On Tue, 26 Jul 2005 17:01:17 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message news:...
>
>> My current antenna is a modified Van Gordon "All Bander".
>> For reference, the stock antenna is 134' of 14g stranded
>> bare copper fed with 100' of 450 ohm ladder line. I cut off
>> half of the ladder line and replaced it with a 12 turn, 5-1/4"
>> rg58 coil. 20 feet of rg58 goes from the coil into the shack.
>> I then trimmed the antenna to 7.175 mhz.
>>
>> The antenna is a flat dipole up 20'. Seems to work OK but
>> I've got the itch to improve it. The feed point is 12" above
>> the peak of my roof. I was thinking about installing a 5' tripod
>> and 2 ten foot masts to elevate the antenna's feed point and
>> convert it into an inverted V. There will be no need to add to
>> the feedline.
>>
>
><snip>
>
>
>Well, it's up guys! The apex is about 40' and the ends are 28'.
>Comparing it to my other antennas I'm seeing about a 1-1/2 to
>2 S unit improvement on 40m and more on the higher bands.
>
>I did a SWR plot before and after changing it and here's the
>sticking point: Before, I had a 2:1 range from 6.900-7.280 and
>now I've got 7.000-7.300 but the minimum SWR went from
>1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
>easily but I'm wondering what would happen if I added 12 feet
>to my 50' of 450 ohm ladder line? Would the minimum SWR
>get better or just move? Or both? Does it really matter? (I don't
>think it matters based on what I've read here).

Ken, this is all a bit scant on detail, and can't be interpreted with
certainty, so i am probably wasting my time running the numbers.

All the following in premised on my interpretation of your rather
loose description, and is only applicable to your situation if what
you have done is *very* close to my interpretation.

I think you have said you have cut a 135' dipole down to 7Mhz, so if
that means it is a half wave long at 7MHz, the feedpoint impedance at

resonance mounted low as you have described is probably somewhere about 60+j0 ohms.

If you transform that with 50' of ladder line (I have modelled Wireman 554), the Zin to the ladder is around 110-j310 and the ladder line has about 0.25dB of loss. You describe a coil of RG58 that seems to be 15' in length and a further 20' of the same. That will transform 110-j310 ohms to 5+j14 at the ATU end with about 2.5dB of loss. The RG58 operates at high VSWR (~12), and although relatively short, the loss is IMHO unacceptable.

There will be a little tuner loss, but it will be insignificant relative to the 2.7dB of feedline loss.

If you want to improve the configuration, the RG58 has to be a prime target of your attention. Most of the real power you deliver to the feedpoint will be radiated (ie conductor losses in the dipole are relatively insignificant), the challenge is to get the power to the feedpoint. In your case you are probably getting around 50% of the transmitter power to the feedpoint.

The closer the dipole is to ground, the more radiation is concentrated upwards, so if you want low angle radiation, raising the dipole height helps.

Owen
--

3545. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 22:50:25 UTC
From: Owen <owen@no.where>
Message-ID: <jp3ge1p1prf0l7l803stcun8nhmvu9k4u9@4ax.com>
Source record: 72610

On Wed, 27 Jul 2005 22:43:34 GMT, Owen <owen@no.where> wrote:

>ohms to 5+j14 at the ATU end with about 2.5dB of loss. The RG58
>operates at high VSWR (~12), and although relatively short, the loss
>is IMHO unacceptable.

I should have added that the VSWR at the ATU end is as low as around
12, and is closer to 20 at the far end. (Knowing VSWR doesn't provide
the solution to this problem.)

Owen
--

3546. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 23:24:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <n9WdnV77uJV1inXfRVn-3w@comcast.com>
Source record: 72612

John Smith wrote:

SNIPPED
>
> Long live amateur radio, and long stay dead the key...
>
> John
>

John, I don't know if you do serious DX. But, I will witness that DX on CW is a heck of a lot easier and faster than on SSB.

As long as there is 'exotic DX' CW will live.

3547. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 23:35:06 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <QSUFe.100$4c.1091687@news.sisna.com>
Source record: 72613

Ham op:

I don't even enjoy chat with male ops! I like a nice female voice, either
am/ssb/fm with an aussie or british accent...

Contacts for the sake of contacts?
List of countries I "want" to chat with?
Number of contacts?

Naaa, none of the above interest me, they did when I first got my license--but
soon (over a year or two) tired of that...

Hey, what can I say....

Perhaps I am not your "normal" ham... ya think? <grin>

John

"Ham op" <hamop@comcast.net> wrote in message
news:n9WdnV77uJV1inXfRVn-3w@comcast.com...
> John Smith wrote:
>
> SNIPPED
>>
>> Long live amateur radio, and long stay dead the key...
>>
>> John
>>
>
> John, I don't know if you do serious DX. But, I will witness that DX on CW is
> a heck of a lot easier and faster than on SSB.
>
> As long as there is 'exotic DX' CW will live.
>

3548. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-27 23:36:40 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dc95q9$l8q$1@news.service.uci.edu>
Source record: 72614

Ham op wrote:

> John Smith wrote:
>
> SNIPPED
>
>>
>> Long live amateur radio, and long stay dead the key...
>>
>> John
>>
>
> John, I don't know if you do serious DX.

I suspect that "John" is not supposed to use his station to transmit
more than 150 miles.

ac6xg

3549. How does your Butternut Vertical work ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 00:21:14 UTC
From: solidgoldZZZ@optonline.net
Message-ID: <42e8249e.4254591@news.optonline.net>
Source record: 72615

I posted this in the wrong group--Let's try it here.
==========
Hi again all,

It looks like I'm going to get a Butternut HF9VX vertical to replace my 25 year old Hustler 5BTV. I looked at Gap verticals, but in all the pictures I've seen, they seem to have some kind of horizontal array at the bottom. I plan on ground mounting this thing, and I'm afraid someone will trip on the array and destroy it or themself. My old Hustler had no horizontal elements at ground level, and in all the pics I've seen of the Butternut verticals, it looks like there is nothing sticking out at the bottom either. Is there anything at the bottom of the Butternuts, and what's your experience with them ???

RON KA2IIA
==========
Remove the ZZZ from my E-mail address to send me E-mail.

3550. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 00:25:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <hCVFe.109$Mq6.927898@news.sisna.com>
Source record: 72616

Jim:

Interesting.

Do you do psychic consultations also?

If so, life must be tough trying to be an accurate psychic!

A twelve year old could mount a better attempt on my anonymity. Even sharpened insults are thwarted by this old elephants hide...

ROFLOL...

John

"Jim Kelley" <jwkelley@nospam.edu> wrote in message news:dc95q9$l8q$1@news.service.uci.edu...
>
>
> Ham op wrote:
>
>> John Smith wrote:
>>
>> SNIPPED
>>
>>>
>>> Long live amateur radio, and long stay dead the key...
>>>
>>> John
>>>
>>
>> John, I don't know if you do serious DX.
>
> I suspect that "John" is not supposed to use his station to transmit more
> than 150 miles.
>
> ac6xg
>
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>
>

3551. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 00:33:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <IJVFe.110$zA1.1138737@news.sisna.com>
Source record: 72617

... I maintain dual citizenship (cb/amateur)

If you ask who are the most fun? CB'ers!

If you ask who is the most helpful on the highway? Truckers!

If you ask the most interesting evening chat? Local CB'ers!

If you ask, who there are the most of in my city? CB'ers!

Now, if you ask what is the best method of communications?
THE INTERNET and MSN chat, yahoo chat, IRC chat, webcam chat, newsgroups, etc, etc....

Hey, you know all of this, look where you are!

... some of this is a real no-brainer yanno...
<grin>

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:hCVFe.109$Mq6.927898@news.sisna.com...
> Jim:
>
> Interesting.
>
> Do you do psychic consultations also?
>
> If so, life must be tough trying to be an accurate psychic!
>
> A twelve year old could mount a better attempt on my anonymity. Even
> sharpened insults are thwarted by this old elephants hide...
>
> ROFLOL...
>
> John
>
> "Jim Kelley" <jwkelley@nospam.edu> wrote in message
> news:dc95q9$l8q$1@news.service.uci.edu...
>>
>>
>> Ham op wrote:
>>
>>> John Smith wrote:
>>>
>>> SNIPPED

>>>
>>>>
>>>> Long live amateur radio, and long stay dead the key...
>>>>
>>>> John
>>>>
>>>
>>> John, I don't know if you do serious DX.
>>
>> I suspect that "John" is not supposed to use his station to transmit more
>> than 150 miles.
>>
>> ac6xg
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>
>

3552. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 01:26:08 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4e187$42e8343f$471c636a$8867@ALLTEL.NET>
Source record: 72618

I don't remember ever seeing anyone acuse you of being normal.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:QSUFe.100$4c.1091687@news.sisna.com...

********** Snipped **********
=> Hey, what can I say....
>
> Perhaps I am not your "normal" ham... ya think? <grin>
>
> John
>

3553. FA: Bencher YA-1 Low Pass Filter 1.5 kw - Like New NR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 01:27:44 UTC
From: Dave <dave@somehere.net>
Message-ID: <d3dge1538kgujfrvldsb8qch6gnt09rm4g@4ax.com>
Source record: 72619

have this Bencher filter up on ebay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5792879976&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

Thanks

Dave

3554. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 01:39:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <oHWFe.131$eI1.1490064@news.sisna.com>
Source record: 72621

Fred:

Thanks. Well, I am just paranoid, in constant fear of being accused... :|

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:4e187$42e8343f$471c636a$8867@ALLTEL.NET...
>I don't remember ever seeing anyone acuse you of being normal.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:QSUFe.100$4c.1091687@news.sisna.com...
>
> ********** Snipped **********
> => Hey, what can I say....
>>
>> Perhaps I am not your "normal" ham... ya think? <grin>
>>
>> John
>>
>
>

3555. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 01:46:34 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <0OWFe.132$n62.1858597@news.sisna.com>
Source record: 72622

David:

Actually, I miss ya bud...

... come back!

John

"David G. Nagel" <nagel@core.com> wrote in message
news:11eduvt1o56p8e3@corp.supernews.com...
> John;
>
> No more comments from me.
>
> Dave WD9BDZ
>
>
> John Smith wrote:
>
>> label the frequency determining elements?
>>
>> Why the xtal and any associated coil or cap used to "pull" the freq in the
>> cmos oscillator... or the pin you take the signal out of on of the
>> decade/hex/octal freq divider...
>>
>> errr, oh wait, you are speaking of the ancient stuff from museums!
>> That is simple, the crystal (if present) and/or coil and cap...
>>
>> hey, you didn't sneak a freq doubler in behind that osc, did ya?
>>
>> geesh... any cber would know that, well, after he read it...
>>
>> and you ain't sneaky and tryin' to run off a harmonic of that osc, are ya?
>>
>> ROFLOL!!!!
>>
>> John
>>
>>
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:b9e9c$42e6e27f$471c636a$13836@ALLTEL.NET...
>>
>>>and label the frequency determining elements. At least that is how I
>>>remember it...

>>>
>>>
>>>"David G. Nagel" <nagel@core.com> wrote in message
>>>news:11edj0t1or8jq5a@corp.supernews.com...
>>>
>>>>Draw a Colpitts Oscillator
>>>>
>>>>Dave WD9BDZ
>>>
>>>

3556. Re: Vertical (Butternut, Titan) vs Carolina Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 01:49:51 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <pan.2005.07.28.01.49.48.490333@removethis.oz.net>
Source record: 72620
Body handling: HTML body converted to readable text

On Wed, 27 Jul 2005 15:00:25 -0400, Joe Guthart wrote:

> I'm starting to explore getting a new antenna for HF ... thus far the options that I've looked at are a vertical ground mount with a counterpoise kit (can't really do radials in my yard). The models that have come up often are the Butternut HF9V and the Gap Titan. Both seem similar. The Butternut's are more expensive and the Gap Titan seems to have good reviews and then has a few folks who say it's worthless. Alternatively, I've looked at a horizontal such as a Carolina Windom. The problem I have with this is that I only have one large tree to tie off to. To do a horizontal right, I would have to have to use a mast for the other end. I've also heard and seen several people that have used some of the break apart masts to do this and they have ended up with a broken mast.
>
> Any advice is greatly appreciated. Thanks.
>
>
>
>
>
I'm starting to explore getting a new antenna for
> HF ... thus far the options that I've looked at are a vertical ground mount with
> a counterpoise kit (can't really do radials in my yard). The models that
> have come up often are the Butternut HF9V and the Gap Titan. Both seem
> similar. The Butternut's are more expensive and the Gap Titan seems to
> have good reviews and then has a few folks who say it's worthless.
> Alternatively, I've looked at a horizontal such as a Carolina Windom. The
> problem I have with this is that I only have one large tree to tie off to.
> To do a horizontal right, I would have to have to use a mast for the other
> end. I've also heard and seen several people that have used some of the
> break apart masts to do this and they have ended up with a broken
> mast.

>

>
Any advice is greatly appreciated.
> Thanks.

>

>

>
> ------=_NextPart_000_014E_01C592BB.EB6A0260--

Two points of advice:

1. Don't post in HTML!

2. Take a look at the Cushcraft R8 and the Hy-Gain AV-640 (which is similar, but has no traps). You also might want to study the K7LXC/N0AX report on verticals at . This report
compares measurements of several popular verticals.

73, Bob N7XY

3557. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 05:39:55 UTC
From: "Big Mac." <clansman@nospam.here.com>
Message-ID: <mhqge11kppom2q420oa7nv0leiingc95k7@4ax.com>
Source record: 72623

On Fri, 22 Jul 2005 20:48:25 , "Tom Donaly" <dtdonaly@sbcglobal.net>
wrote:

>> We "funded" the IRA?
>
>The British have always been under the impression that
>we Americans saved our pennies for the sole purpose of
>sending them to the IRA to finance the IRA's terrorist practices.
>This is news to those of us who lived through the whole
>era without giving anyone anything, or even taking sides
>on the issue. There may have been a few Irish expatriots on
>the East Coast who contributed to the IRA during that time,
>but, for most Americans, it was a struggle that just didn't
>register.
>73,
>Tom Donaly, KA6RUH

"Irish expatriots" ?
That'd be another euphemism for "financers of terrorism" as Dubbya
refers to those backing Bin Laden & Co. Huh?
Do I detect the first nauseating whiff of history being rewritten, to
expunge all traces of Stateside involvement with funding Irish
terrorism?

It's just a shame that Martin McGuinness is (according to US news
networks) in the US telling American financial backers, before
announcing to everybody else, that the "armed struggle" aka
terrorism, is being called off.
This is how it works. First you tell your bank, then you tell the
rest. That way it keeps your bank sweet for the next time you want
more bucks.

Big Mac.

3558. ARRL 20 july, FCC Proposes to Drop Morse Code Requirement for All License Classes

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 07:37:24 UTC
From: Thierry <->
Message-ID: <42e88b37$1@news.vo.lu>
Source record: 72624
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

FYI - FCC Proposes to Drop Morse Code Requirement for All License Classes

Thierry, ON4SKY
http://www.astrosurf.org/lombry

Text found on ARRL at http://www.arrl.org/news/stories/2005/07/20/100/?nc=1

NEWINGTON, CT, July 20, 2005--The FCC has proposed dropping the 5 WPM Morse code element as a requirement to obtain an Amateur Radio license of any class. The Commission recommended the change to its Part 97 Amateur Service rules in a Notice of Proposed Rule Making (NPRM) in WT Docket 05-235. Any rule changes proposed in the NPRM would not become final until the FCC gathers additional public comments, formally adopts any changes to its rules and concludes the proceeding by issuing a Report and Order (R&O) spelling out the changes and specifying an effective date. That's not likely to happen for several months. The FCC declined in its NPRM to go forward with any other suggested changes to Amateur Service licensing rules or operating privileges beyond elimination of the Morse requirement.
"Based upon the petitions and comments, we propose to amend our amateur service rules to eliminate the requirement that individuals pass a telegraphy examination in order to qualify for any amateur radio operator license," the FCC said in its NPRM, released July 19. This week's NPRM consolidated 18 petitions for rule making from the amateur community--including one from the ARRL--that proposed a wide range of additional changes to the amateur rules. The FCC said the various petitions had attracted 6200 comments from the amateur community, which soon will have the opportunity to comment again--this time on the FCC's proposals in response to those petitions.

The Commission said it believes dropping Element 1--the 5 WPM Morse examination--would "encourage individuals who are interested in communications technology, or who are able to contribute to the advancement of the radio art, to become amateur radio operators." The FCC said it also would eliminate a requirement it believes "is now unnecessary and that may discourage" current licensees from advancing their skills, and that it would "promote more efficient use" of current Amateur Radio spectrum.

The FCC cited changes in Article 25 of the international Radio Regulations adopted at World Radiocommunication Conference 2003 as the primary reason to go forward with eliminating Morse code as an Amateur Radio licensing requirement in the future. Among other changes, WRC-03 deleted the Morse testing requirement for amateur applicants seeking HF privileges, leaving it up to individual countries to determine whether or not they want to mandate

Morse testing. Several countries already have dropped their Morse requirements.

ARRL CEO David Sumner, K1ZZ, said he was not surprised that the FCC proposed altogether scrapping the Morse code requirement. The League and others had called for retaining the 5 WPM requirement only for Amateur Extra class applicants. Sumner expressed dismay, however, that the FCC turned away proposals from the League and other petitioners to create a new entry-level Amateur Radio license class.

"We're disappointed that the Commission prefers to deny an opportunity to give Amateur Radio the restructuring it needs for the 21st century," he said. "It appears that the Commission is taking the easy road, but the easy road is seldom the right road."

Sumner said ARRL officials and the Board of Directors would closely study the 30-page NPRM and plan to comment further after they've had the opportunity to consider the Commission's stated rationales for its proposals.

In 2004, the ARRL filed a Petition for Rule Making asking the FCC to amend Part 97 to complete the Amateur Service restructuring begun in 1999 but "left unfinished." The League called on the FCC to create a new entry-level license, reduce the number of actual license classes to three and drop the Morse code testing requirement for all classes except for Amateur Extra. Among other recommendations, the League asked the FCC to automatically upgrade Technician licensees to General and Advanced licensees to Amateur Extra. In this week's NPRM, the FCC said it was not persuaded such automatic upgrades were in the public interest.

The FCC said it did not believe a new entry-level license class was warranted because current Novice and Tech Plus licensees already can easily upgrade to General. "We also note that, if our proposal to eliminate telegraphy testing in the amateur service is adopted," the FCC continued, "a person who is not a licensee will be able to qualify for a General Class operator license by passing two written examinations, and that a person who is a Technician Class licensee will be able to qualify for a General Class operator license by passing one written examination." The FCC said it does not believe either path to be unreasonable.

The FCC also said that it's already addressed some of the other issues petitioners raised in its "Phone Band Expansion" (or "Omnibus") NPRM in WT Docket 04-140. In that proceeding, the Commission proposed to go along with the ARRL's Novice refarming proposal aimed at reallocating the current Novice/Tech Plus subbands to provide additional phone spectrum. Under the plan, Novice/Tech Plus licensees would be granted CW privileges in the current General CW subbands.

A 60-day period for members of the public to comment on the FCC's NPRM in WT 05-235 will begin once the NPRM appears in the Federal Register. Reply comments will be due within 75 days of the NPRM's publication in the Federal Register.

3559. Re: Vertical (Butternut, Titan) vs Carolina Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 11:10:35 UTC
From: Thierry <->
Message-ID: <42e8bd2e$1@news.vo.lu>
Source record: 72525

"Joe Guthart" <jguthart@comcast.net> wrote in message
news:iuGdneiScZRXRHrfRVn-3A@comcast.com...
I'm starting to explore getting a new antenna for HF ... thus far the
options that I've looked at are a vertical ground mount with a counterpoise
kit (can't really do radials in my yard). The models that have come up
often are the Butternut HF9V and the Gap Titan. Both seem similar. The
Butternut's are more expensive and the Gap Titan seems to have good reviews
and then has a few folks who say it's worthless. Alternatively, I've looked
at a horizontal such as a Carolina Windom. The problem I have with this is
that I only have one large tree to tie off to. To do a horizontal right, I
would have to have to use a mast for the other end. I've also heard and
seen several people that have used some of the break apart masts to do this
and they have ended up with a broken mast.

Any advice is greatly appreciated. Thanks.

Hi Joe,

I worked with a Hi-Gain vertical placed 10m high for Dxing and a G5RV and
carolina windom (30-40m long) at 100W SSB.
Based on my exprience, as it, the advantage goes definetly to the vertical
due to its omnidirectional pattern (even placed at ground level with
radials).

Dipoles display a leaf radiation pattern which is a plus vs. the vertical
but there are set in specific directions and elevations which is not always
interesting if you want to reach a specific DX zone.
In my case for example the windom was tied NE-SW in ON so I had difficulties
to work USA over the eastern coast, even canada, middle east, africa and
farer.
Of course, from time to time I reached XE, PY, YB at eve and even VK on
mornings but it was sometimes hard
(mainly due to kW-users !!).
The vertical segment of the OCF is a plus vs. e.g. a G5RV as it emits at
360°, adding some lobes in troughs of the OCF radiation pattern. Thus
gobally, I have found the OCF offering almost an omnidirectional pattern
http://www.astrosurf.org/lombry/Radio/ant-carolina-windom-radiation-pattern.
gif
and working better than my multiband dipole but not as good as the 1/4L
vertical.
Now if you can rotate your dipole or OCF, I would use it instead of the
vertical.

73
Thierry, ON4SKY
http://www.astrosurf.org/lombry/menu-qsl.htm

3560. Re: How does your Butternut Vertical work ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 14:41:38 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dcaqr2fnm1@f04n12.cac.psu.edu>
Source record: 72526

Ron in NY wrote:

> It looks like I'm going to get a Butternut HF9VX vertical to replace my 25
> year old Hustler 5BTV. I looked at Gap verticals, but in all the pictures I've
> seen, they seem to have some kind of horizontal array at the bottom. I plan on
> ground mounting this thing, and I'm afraid someone will trip on the array and
> destroy it or themself. My old Hustler had no horizontal elements at ground
> level, and in all the pics I've seen of the Butternut verticals, it looks like
> there is nothing sticking out at the bottom either. Is there anything at the
> bottom of the Butternuts, and what's your experience with them ???

Lets work our way backwards. The Butternuts work well. Since you are
used to vertical performance, you should be happy with one of them.

As to things sticking out at ground level, the Butternut wants some
radials around it. You'll want to place some on or in the ground. Some
staple the radials to the ground surface. A lot of us bury them a bit
underground. So there are no trip hazards.

- mike KB3EIA -

3561. Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 14:49:33 UTC
From: Mark Veldhuis <me@privacy.net>
Message-ID: <dcar9t$259$1@news5.zwoll1.ov.home.nl>
Source record: 72527

Hello,

I got my Icom IC-R75 rx. connected to a Wellbrook ALA1530 loop antenna.
On this antenna, I have an enormous amount of 'buzzz' on much MW and SW
frequencies. It is much less noticeable on a portable receiver with a
whip antenna.
When I have just the center pin of the PL259 plug connected to the
receiver, much of the buzz disappears. As soon as I connect the other
part of the plug too (the shield of the coax, so to say), it becomes
audible again.
I am not very techinal, and don't know where to start troubleshooting.
Should I look for damage on the coax cable? Could it be badly
soldered/connected BNC plugs? Anything else that's worth investigating?

Many thanks for any tips!
--

73',

Mark Veldhuis.

3562. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 15:18:49 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <nH6Ge.22103$HV1.10801@fed1read07>
Source record: 72528

Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
a swinging choke ??

Then why ask these questions on a 2005 Ham test ??

Maybe ask about a VCO or a crowbar circuit ??

--
CL -- I doubt, therefore I might be !

Someone wrote

> Draw a Colpitts Oscillator
> What is a swinging choke

3563. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 15:46:07 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <657Ge.194$ns.4758631@news.sisna.com>
Source record: 72529

How about PLL?

John

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:nH6Ge.22103$HV1.10801@fed1read07...
> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or a
> swinging choke ??
>
> Then why ask these questions on a 2005 Ham test ??
>
> Maybe ask about a VCO or a crowbar circuit ??
>
> --
> CL -- I doubt, therefore I might be !
>
> Someone wrote
>
>> Draw a Colpitts Oscillator
>> What is a swinging choke
>
>

3564. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 15:46:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4avhe1duludfoedb8nu7g480man5miej6v@4ax.com>
Source record: 72530

On Thu, 28 Jul 2005 16:49:33 +0200, Mark Veldhuis <me@privacy.net>
wrote:

>When I have just the center pin of the PL259 plug connected to the
>receiver, much of the buzz disappears. As soon as I connect the other
>part of the plug too (the shield of the coax, so to say), it becomes
>audible again.

Hi Mark,

Sounds like a ground loop. If you are using the Antenna Interface,
make all connections that give you this interference. Now, disconnect
the power lead to the Antenna Interface. If the noise goes away, you
have a ground loop that is associated with where your power to this
unit comes from, and what you are using as the ground for your
IC-R75.

73's
Richard Clark, KB7QHC

3565. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 16:15:52 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <Sw7Ge.22116$HV1.13942@fed1read07>
Source record: 72531

A PLL question is on the extra exam See question
E7D07

--
CL -- I doubt, therefore I might be !

"John Smith" <assemblywizard@gmail.com> wrote in message
news:657Ge.194$ns.4758631@news.sisna.com...
> How about PLL?
>
> John
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:nH6Ge.22103$HV1.10801@fed1read07...
>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator
>> or a swinging choke ??
>>
>> Then why ask these questions on a 2005 Ham test ??
>>
>> Maybe ask about a VCO or a crowbar circuit ??
>>
>> --
>> CL -- I doubt, therefore I might be !
>>
>> Someone wrote
>>
>>> Draw a Colpitts Oscillator
>>> What is a swinging choke
>>
>>
>
>

3566. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 16:23:37 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <gE7Ge.210$tX.4805736@news.sisna.com>
Source record: 72532

... to think it possible!

Now all the CB'ers are doomed to failure! Surely the concept and workings of a
phase locked loop are beyond their comprehension!
<evil-protectionist-chuckle>
<Heee-he-he-he-he!>

John

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:Sw7Ge.22116$HV1.13942@fed1read07...
>A PLL question is on the extra exam See question
> E7D07
>
> --
> CL -- I doubt, therefore I might be !
>
>
>
>
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:657Ge.194$ns.4758631@news.sisna.com...
>> How about PLL?
>>
>> John
>>
>> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
>> news:nH6Ge.22103$HV1.10801@fed1read07...
>>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>> a swinging choke ??
>>>
>>> Then why ask these questions on a 2005 Ham test ??
>>>
>>> Maybe ask about a VCO or a crowbar circuit ??
>>>
>>> --
>>> CL -- I doubt, therefore I might be !
>>>
>>> Someone wrote
>>>
>>>> Draw a Colpitts Oscillator
>>>> What is a swinging choke
>>>

>>>
>>
>>
>
>

3567. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 16:29:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <_J7Ge.216$L61.4872325@news.sisna.com>
Source record: 72533

```
CL:

If you run into any cb'ers having a problem with that question, it is included
on this URL, containing the questions, and the CORRECT answers:
http://www.craigr.com/subelement7.htm

John

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:Sw7Ge.22116$HV1.13942@fed1read07...
>A PLL question is on the extra exam See question
> E7D07
>
> --
> CL -- I doubt, therefore I might be !
>
>
>
>
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:657Ge.194$ns.4758631@news.sisna.com...
>> How about PLL?
>>
>> John
>>
>> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
>> news:nH6Ge.22103$HV1.10801@fed1read07...
>>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>> a swinging choke ??
>>>
>>> Then why ask these questions on a 2005 Ham test ??
>>>
>>> Maybe ask about a VCO or a crowbar circuit ??
>>>
>>> --
>>> CL -- I doubt, therefore I might be !
>>>
>>> Someone wrote
>>>
>>>> Draw a Colpitts Oscillator
>>>> What is a swinging choke
>>>
>>>
```

>>
>>
>
>

3568. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 17:35:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e9187d$1_2@spool9-west.superfeed.net>
Source record: 72534

Caveat Lector wrote:
> A PLL question is on the extra exam See question
> E7D07

How about "Twiddle factor"?
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3569. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 17:46:44 UTC
From: dplatt@radagast.org
Message-ID: <11ei6g4ctkkpc42@corp.supernews.com>
Source record: 72535

In article <nH6Ge.22103$HV1.10801@fed1read07>,
Caveat Lector <UALLBeware@9984reader.com> wrote:

>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>a swinging choke ??

I believe that a goodly percentage of fixed-frequency quartz crystal
oscillators use a Colpitts configuration in their feedback circuitry.
Pierce topologies are likely used, as well.

The L in such oscillators is the motional inductance of the crystal,
rather than the inductance of a wire-wound inductor, but the principle
is still the same.

>Then why ask these questions on a 2005 Ham test ??

Because the circuits are still relevant, to either modern ham gear, or
to the older gear that many hams refurbish and use, or to both.

>Maybe ask about a VCO or a crowbar circuit ??

VCOs require some form of positive feedback in order to oscillate.
This can be in a Colpitts configuration just as well as in any other.

Questions about a crowbar would certainly be relevant as well.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3570. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 17:51:01 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <cW8Ge.247$RS1.5053575@news.sisna.com>
Source record: 72536

Dave:

I have seen designs used which use a "white noise generator" at their osc.

Simply filter the freq you want from it and off you go...

John

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11ei6g4ctkkpc42@corp.supernews.com...
> In article <nH6Ge.22103$HV1.10801@fed1read07>,
> Caveat Lector <UALLBeware@9984reader.com> wrote:
>
>>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>a swinging choke ??
>
> I believe that a goodly percentage of fixed-frequency quartz crystal
> oscillators use a Colpitts configuration in their feedback circuitry.
> Pierce topologies are likely used, as well.
>
> The L in such oscillators is the motional inductance of the crystal,
> rather than the inductance of a wire-wound inductor, but the principle
> is still the same.
>
>>Then why ask these questions on a 2005 Ham test ??
>
> Because the circuits are still relevant, to either modern ham gear, or
> to the older gear that many hams refurbish and use, or to both.
>
>>Maybe ask about a VCO or a crowbar circuit ??
>
> VCOs require some form of positive feedback in order to oscillate.
> This can be in a Colpitts configuration just as well as in any other.
>
> Questions about a crowbar would certainly be relevant as well.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

3571. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:18:35 UTC
From: jgboyles@aol.com
Message-ID: <1122585515.591940.325740@g43g2000cwa.googlegroups.com>
Source record: 72537

Caveat Lector wrote:
> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
> a swinging choke ??
>
> Then why ask these questions on a 2005 Ham test ??
>
> Maybe ask about a VCO or a crowbar circuit ??
>
> --
> CL -- I doubt, therefore I might be !
>
> Someone wrote
>
> > Draw a Colpitts Oscillator
> > What is a swinging choke

The Ameritron ALS-600 solid state amplifier uses a swinging choke in its 50 volt 20 amp power supply. The choke is essentially the regulating element because it swings in and out of core saturation. I understand they now have a SMPS that they will offer with the ALS-600. Maybe they should have some questions about SMPS on the exam.
Gary N4AST

3572. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:27:52 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <a5KdnQxiPO-303TfRVn-qA@comcast.com>
Source record: 72538

Caveat Lector wrote:

> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
> a swinging choke ??
>
> Then why ask these questions on a 2005 Ham test ??
>
> Maybe ask about a VCO or a crowbar circuit ??

You miss the point! Totally missed the point!!

In the 'olden days', the exams were not multiple guess questions; and,
they were answered in front of an FCC Engineer. In the olden days one
had to commit to some real effort to get a license. In human nature we
VALUE that which we work for or invest for.

The crime in ham radio today is the 5 hour Saturday morning cram session
followed by a VE session; followed by a license; followed by loss of
interest in a year or so.

I live in a small town with 14 licensed 'hams' with only one active [me]
and only one HF station [mine].

IMO there is a significant difference between number of licenses issued
or valid and how many hams are on the air.

3573. Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:30:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcbipg$c94$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72539

Some years back I buried a 30 metre (60-feet) auminium wire one spade depth in my back garden. Wire was 1.5 mm in diameter. Soil resistivity about 100 ohm-metres. To scientists that's 10 milli-Siemens. The near end of the wire came up in the shack. That's under my kitchen sink. It's still there. Open-circuit at the far end.

As a counterpoise, something essential to tune it against, I erected a wire in the form of an inverted-L. This was about 30 feet high and overall length about 140 feet. I chose this length because it fitted nicely into my back garden. The front garden is too short even for an underground antenna.

On the 160m band I fed into it about 30 watts from a home-brew transceiver so I can't provide for the record a manufacturer's type and serial number. However I still have the transceiver which can be inspected.

Despite a high local noise level of S-6 I was able to communicate up to 60 miles with mobile stations in broad daylight on SSB. After sunset I could easily communicate with most of Europe on CW.

I think a record of these buried antenna experiments should be kept for posterity, alongside the famous biblical work of B,L & E.

By the way, as you see, I did remember to measure soil resistivity. It was the first thing I did. What buried wire do you think I used to measure it?

Reg, G4FGQ

3574. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:32:01 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <n9cGe.289$G%2.5303384@news.sisna.com>
Source record: 72540

... in the "olden days" it was expected you would be building that equipment
you were being tested on ...

... of course logic and reason now demands the removal of those questions ...

John

"Ham op" <hamop@comcast.net> wrote in message
news:a5KdnQxiPO-303TfRVn-qA@comcast.com...
> Caveat Lector wrote:
>
>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>> a swinging choke ??
>>
>> Then why ask these questions on a 2005 Ham test ??
>>
>> Maybe ask about a VCO or a crowbar circuit ??
>
> You miss the point! Totally missed the point!!
>
> In the 'olden days', the exams were not multiple guess questions; and, they
> were answered in front of an FCC Engineer. In the olden days one had to
> commit to some real effort to get a license. In human nature we VALUE that
> which we work for or invest for.
>
> The crime in ham radio today is the 5 hour Saturday morning cram session
> followed by a VE session; followed by a license; followed by loss of interest
> in a year or so.
>
> I live in a small town with 14 licensed 'hams' with only one active [me] and
> only one HF station [mine].
>
> IMO there is a significant difference between number of licenses issued or
> valid and how many hams are on the air.
>

3575. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:33:26 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6P-dnUfC7r3l0nTfRVn-3w@comcast.com>
Source record: 72541

Caveat Lector wrote:

> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
> a swinging choke ??
>
> Then why ask these questions on a 2005 Ham test ??
>
> Maybe ask about a VCO or a crowbar circuit ??

All of them!!! The reference oscillator in every phase locked loop is
generally a Colpitt's oscillator. I suspect that every oscillator in
the VCO circuit is also Colpitt's.

By simply asking the question you make the point!!!

The required level of knowledge for a license today is significantly
poorer than 40 or 50 years ago.

3576. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:36:03 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6P-dnUbC7r2JzXTfRVn-3w@comcast.com>
Source record: 72542

White noise is a critical requirement of the Colpitts/Hartley oscillator
design.

Nothing new here!

You say you don't know why White noise is required. Better go read
Terman or other credible designers.

John Smith wrote:

> Dave:
>
> I have seen designs used which use a "white noise generator" at their osc.
>
> Simply filter the freq you want from it and off you go...
>
> John
>
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:11ei6g4ctkkpc42@corp.supernews.com...
>
>>In article <nH6Ge.22103$HV1.10801@fed1read07>,
>>Caveat Lector <UALLBeware@9984reader.com> wrote:
>>
>>
>>>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>>a swinging choke ??
>>
>>I believe that a goodly percentage of fixed-frequency quartz crystal
>>oscillators use a Colpitts configuration in their feedback circuitry.
>>Pierce topologies are likely used, as well.
>>
>>The L in such oscillators is the motional inductance of the crystal,
>>rather than the inductance of a wire-wound inductor, but the principle
>>is still the same.
>>
>>
>>>Then why ask these questions on a 2005 Ham test ??
>>
>>Because the circuits are still relevant, to either modern ham gear, or
>>to the older gear that many hams refurbish and use, or to both.
>>
>>
>>>Maybe ask about a VCO or a crowbar circuit ??
>>

>>VCOs require some form of positive feedback in order to oscillate.
>>This can be in a Colpitts configuration just as well as in any other.
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>>Questions about a crowbar would certainly be relevant as well.
>>
>>--
>>Dave Platt <dplatt@radagast.org> AE6EO
>>Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
>> I do _not_ wish to receive unsolicited commercial email, and I will
>> boycott any company which has the gall to send me such ads!
>
>
>

3577. Re: FA: Bencher YA-1 Low Pass Filter 1.5 kw - Like New NR

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 21:38:03 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6P-dnUHC7r0QzXTfRVn-3w@comcast.com>
Source record: 72543

Dave wrote:

> have this Bencher filter up on ebay:
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5792879976&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1
>
> Thanks
>
> Dave

I use an old DRAKE. But QST rated the YA-1 as among the best. I have
no, none, zero, zippo, nil, interest in Bencher or this listing.

3578. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 22:00:27 UTC
From: jgboyles@aol.com
Message-ID: <1122588027.272858.271030@g49g2000cwa.googlegroups.com>
Source record: 72544

Reg Edwards wrote:
> Some years back I buried a 30 metre (60-feet) auminium wire one spade
> depth in my back garden. Wire was 1.5 mm in diameter. Soil
> resistivity about 100 ohm-metres. To scientists that's 10
> milli-Siemens. The near end of the wire came up in the shack. That's
> under my kitchen sink. It's still there. Open-circuit at the far end.
>
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet. I chose this length because it fitted
> nicely into my back garden. The front garden is too short even for an
> underground antenna.
>
> On the 160m band I fed into it about 30 watts from a home-brew
> transceiver so I can't provide for the record a manufacturer's type
> and serial number. However I still have the transceiver which can be
> inspected.
>
> Despite a high local noise level of S-6 I was able to communicate up
> to 60 miles with mobile stations in broad daylight on SSB. After
> sunset I could easily communicate with most of Europe on CW.
>
> I think a record of these buried antenna experiments should be kept
> for posterity, alongside the famous biblical work of B,L & E.
>
> By the way, as you see, I did remember to measure soil resistivity. It
> was the first thing I did. What buried wire do you think I used to
> measure it?
> ----
> Reg, G4FGQ

Hi Reg, Interesting, but isn't a 30 metre wire more like 100 feet
instead of 60 feet? According to the conversions on your programs it
is. Did you ever try burying your counterpoise and elevating the
buried aluminum wire to see how the results compare?
Gary N4AST

3579. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 22:38:23 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42e95ec4_1@newsfeed.slurp.net>
Source record: 72546

"Reg Edwards">
>Some years back I buried a 30 metre (60-feet) auminium wire
>one spade depth in my back garden.
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet.

>I think a record of these buried antenna experiments should be kept
>for posterity, alongside the famous biblical work of B,L & E.

So you loaded your tx into an antenna system consisting of a 140 foot inverted L, 30 feet above ground with a buried ground radial 99 feet long. What is so unusual about that? Certainly not a venture of biblical proportions, IMO.

Perhaps you haven't flipped enough of your calendar pages?

RF

3580. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 22:39:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcbmq4$4c7$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72545

<jgboyles wrote
> Hi Reg, Interesting, but isn't a 30 metre wire more like 100 feet
> instead of 60 feet? According to the conversions on your programs
it
> is.
==========
It's in the right ball park.

I'm pleased you make use of the measurements conversions in some of my programs. Its just a small thing I can do to help paying back for what you Americans did by helping us poor Brits to win the war. ;o) ;o) ;o) ;o) ;o) ;o)

Reg.

3581. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 22:56:25 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <AodGe.305$as4.5622883@news.sisna.com>
Source record: 72547

Reg:

Indeed, my grandfather fought with "you brits" during the war, he had many german lugars, swords, coins and memorabilia he brought back...

He seen enough to hold a high respect for the british empires' citizens--for the rest of his life... indeed, his words inspired such in others...

Unless he greatly exaggerated the acts of glory, valor, bravery and loyalty demonstrated by the british troops, (which I never found existed in my grandfather--exaggeration), which he shared foxholes with, you brits have nothing to repay... we are even--perhaps we even got the better of the deal, as our forefathers had the company of decent men to share those bad times with... he was there and liberated the Nazi camps, in the end... he would cry when he would describe what his eyes could never forget...

... he spoke highly of the aussies also, indeed, he commented, "some of those men were above mere human beings" (his EXACT words), when referring to both brits and aussies.

I have told my son of this man (his great-grandfather) and the men he (my grandfather) was fortunate enough to have had at his side...

If the future demands, let us hope we shall be such allies again...

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dcbmq4$4c7$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> <jgboyles wrote
> > Hi Reg, Interesting, but isn't a 30 metre wire more like 100 feet
>> instead of 60 feet? According to the conversions on your programs
> it
>> is.
> ============================
> It's in the right ball park.
>
> I'm pleased you make use of the measurements conversions in some of my
> programs. Its just a small thing I can do to help paying back for what
> you Americans did by helping us poor Brits to win the war. ;o) ;o)
> ;o) ;o) ;o) ;o)
> ----
> Reg.
>
>

3582. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:08:03 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11eipaog7rkfa0@corp.supernews.com>
Source record: 72549

> Well, it's up guys! The apex is about 40' and the ends are 28'.
> Comparing it to my other antennas I'm seeing about a 1-1/2 to
> 2 S unit improvement on 40m and more on the higher bands.
>
> I did a SWR plot before and after changing it and here's the
> sticking point: Before, I had a 2:1 range from 6.900-7.280 and
> now I've got 7.000-7.300 but the minimum SWR went from
> 1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
> easily but I'm wondering what would happen if I added 12 feet
> to my 50' of 450 ohm ladder line? Would the minimum SWR
> get better or just move? Or both? Does it really matter? (I don't
> think it matters based on what I've read here).
>
> Ken
>
> --
> Just my 2ï¿½... 73 es gd dx de Ken KGï¿½WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>
>
If it ain't broke Ben, and it's not, do not fix it!!

Butch KF5DE

3583. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:08:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <JzdGe.308$Pc3.5415014@news.sisna.com>
Source record: 72548

Hmmm...

No, I don't believe I will have to read anything...

But, if you can't tell the difference between a white noise generator and an
osc giving a clean fundamental signal with greatly suppressed/filtered
harmonics (or even, non-existent harmonics), you may wish to read-up before
taking that project to the air...

John

"Ham op" <hamop@comcast.net> wrote in message
news:6P-dnUbC7r2JzXTfRVn-3w@comcast.com...
> White noise is a critical requirement of the Colpitts/Hartley oscillator
> design.
>
> Nothing new here!
>
> You say you don't know why White noise is required. Better go read Terman or
> other credible designers.
>
> John Smith wrote:
>
>> Dave:
>>
>> I have seen designs used which use a "white noise generator" at their osc.
>>
>> Simply filter the freq you want from it and off you go...
>>
>> John
>>
>> "Dave Platt" <dplatt@radagast.org> wrote in message
>> news:11ei6g4ctkkpc42@corp.supernews.com...
>>
>>>In article <nH6Ge.22103$HV1.10801@fed1read07>,
>>>Caveat Lector <UALLBeware@9984reader.com> wrote:
>>>
>>>
>>>>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>>>a swinging choke ??
>>>
>>>I believe that a goodly percentage of fixed-frequency quartz crystal
>>>oscillators use a Colpitts configuration in their feedback circuitry.
>>>Pierce topologies are likely used, as well.
>>>

>>>The L in such oscillators is the motional inductance of the crystal,
>>>rather than the inductance of a wire-wound inductor, but the principle
>>>is still the same.
>>>
>>>
>>>>Then why ask these questions on a 2005 Ham test ??
>>>
>>>Because the circuits are still relevant, to either modern ham gear, or
>>>to the older gear that many hams refurbish and use, or to both.
>>>
>>>
>>>>Maybe ask about a VCO or a crowbar circuit ??
>>>
>>>VCOs require some form of positive feedback in order to oscillate.
>>>This can be in a Colpitts configuration just as well as in any other.
>>>
>>>Questions about a crowbar would certainly be relevant as well.
>>>
>>>--
>>>Dave Platt <dplatt@radagast.org> AE6EO
>>>Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
>>> I do _not_ wish to receive unsolicited commercial email, and I will
>>> boycott any company which has the gall to send me such ads!
>>
>>
>>
>

3584. Re: Vertical (Butternut, Titan) vs Carolina Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:14:08 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11eipm4rfkj0ca3@corp.supernews.com>
Source record: 72550

Joe Guthart wrote:
> I'm starting to explore getting a new antenna for HF ... thus far the
> options that I've looked at are a vertical ground mount with a
> counterpoise kit (can't really do radials in my yard). The models that
> have come up often are the Butternut HF9V and the Gap Titan. Both seem
> similar. The Butternut's are more expensive and the Gap Titan seems to
> have good reviews and then has a few folks who say it's worthless.
> Alternatively, I've looked at a horizontal such as a Carolina Windom.
> The problem I have with this is that I only have one large tree to tie
> off to. To do a horizontal right, I would have to have to use a mast
> for the other end. I've also heard and seen several people that have
> used some of the break apart masts to do this and they have ended up
> with a broken mast.
>
> Any advice is greatly appreciated. Thanks.
>
>
You can't go wrong with either antenna. Do know that the Titan comes in
two versions one for 80 and one for 75. Do not use your tuner with the
Titan, It's all in the directions You will love either one of 'em.

Butch KF5DE

3585. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:18:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5JdGe.309$IU3.5535863@news.sisna.com>
Source record: 72558

... not at all...

... some are cmos/mosfet nand/nor gates, xtal controlled feedback--used as osc's and only tuned by "pulling" the xtal with a cap, and the signal passed to multipliers (multishot monostable vibrators) or freq dividers (dec/hex/oct) and used with other signals (mixed) to produce still other/unique freqs.

Special purpose ic's are around which contain all this (except the xtal) on a single chip.

There is probably much newer technology than this at this point, as all my knowledge of this hardware is a decade or more old...

The cheapest/easiest equip uses a coil and cap (old vfo's) and/or xtal (vxo's.)

John

"Ham op" <hamop@comcast.net> wrote in message
news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
> Caveat Lector wrote:
>
>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>> a swinging choke ??
>>
>> Then why ask these questions on a 2005 Ham test ??
>>
>> Maybe ask about a VCO or a crowbar circuit ??
>
>
> All of them!!! The reference oscillator in every phase locked loop is
> generally a Colpitt's oscillator. I suspect that every oscillator in the VCO
> circuit is also Colpitt's.
>
> By simply asking the question you make the point!!!
>
> The required level of knowledge for a license today is significantly poorer
> than 40 or 50 years ago.
>
>

3586. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:24:52 UTC
From: Dave <noone@nowhere.com>
Message-ID: <M6CdnYrpt9LW9HTfRVn-hQ@crocker.com>
Source record: 72551

"Butch Magee" <lynyrd@cableone.net> wrote in message
news:11eipaog7rkfa0@corp.supernews.com...
>> Well, it's up guys! The apex is about 40' and the ends are 28'.
>> Comparing it to my other antennas I'm seeing about a 1-1/2 to
>> 2 S unit improvement on 40m and more on the higher bands.
>>
>> I did a SWR plot before and after changing it and here's the
>> sticking point: Before, I had a 2:1 range from 6.900-7.280 and
>> now I've got 7.000-7.300 but the minimum SWR went from
>> 1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
>> easily but I'm wondering what would happen if I added 12 feet
>> to my 50' of 450 ohm ladder line? Would the minimum SWR
>> get better or just move? Or both? Does it really matter? (I don't
>> think it matters based on what I've read here).

it doesn't matter! get on the air!

3587. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:55:49 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <15sie19i74stkcrnn82q2hebi00knro9a3@4ax.com>
Source record: 72553
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Wed, 27 Jul 2005 19:34:31 GMT, Frank Turner-Smith G3VKI
<g3vki@turner-smith.co.uk> Gave us:

>NunYa Bidness wrote:
>> On Tue, 26 Jul 2005 20:06:46 -0400, "David.Shrader"
>> <W1MCE@comcast.net> Gave us:
>>
>>
>>>In the words of that greatest american philosopher: "De Ja Vous, all
>>>over again" --- Y. Berra
>>>
>>>It's time to let this issue die.
>>>
>>
>>
>> Top posting idiots BOTH of you!
>One, and possibly the only good thing about top posting is that it
>pisses you off.

Who said that I was pissed? I am merely declaring those retards
that do top post what exactly they are... fucking abject idiots.
Try again.

3588. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-28 23:56:36 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ca5de$42e970bc$97d55a77$2074@ALLTEL.NET>
Source record: 72552

The same day I took the test for General, I also took and passed all requirements for a first class Phone with RADAR endorsement. The engineer administering the test told me if I wanted to take a really tough test, the amateur extra was the most difficult given by the FCC.

Unfortunately at that time one had to wait a year to take advanced and two years to take the Extra. I would sure like to see them reinstate the time requirements so some of these young bucks could get a little seasoning before advancing. Today you can get it all in one day. Then armed with your brand new Extra; proceed to E-Ham and ask questions in the Elmer conference that could be answered by an old time novice.

"Ham op" <hamop@comcast.net> wrote in message news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...

> The required level of knowledge for a license today is significantly
> poorer than 40 or 50 years ago.
>
>

3589. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 00:08:16 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <RreGe.315$CX4.5834912@news.sisna.com>
Source record: 72561

Fred:

Yes. But those were simple times when much of what we take for granted today loomed before us as dark mysteries...

Things are much more complex these days, BS, MS, PHD's are much more common per capita and the general knowledge of the common person on the street is magnitudes greater than the times you are speaking of.

No longer are people with a bit of knowledge in such demand.

Our colleges turn out highly educated individuals in vast numbers which stagger the imagination. Indeed, seats in colleges are filled far too quickly, leaving no room for those not fortunate to gain entrance.

It is quite possible the person you see before you in a lowly public service position has a degree.

Across the board, +25% of all college grads are working at or near minimum wage in a field outside their course of study--five years after they graduate; I suspect this figure, which the colleges themselves claim, is rather low...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:ca5de$42e970bc$97d55a77$2074@ALLTEL.NET...
> The same day I took the test for General, I also took and passed all
> requirements for a first class Phone with RADAR endorsement. The engineer
> administering the test told me if I wanted to take a really tough test, the
> amateur extra was the most difficult given by the FCC.
>
> Unfortunately at that time one had to wait a year to take advanced and two
> years to take the Extra. I would sure like to see them reinstate the time
> requirements so some of these young bucks could get a little seasoning
> before advancing. Today you can get it all in one day. Then armed with your
> brand new Extra; proceed to E-Ham and ask questions in the Elmer conference
> that could be answered by an old time novice.
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
>
>> The required level of knowledge for a license today is significantly
>> poorer than 40 or 50 years ago.
>>
>>
>
>

3590. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 00:16:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11eitaaov49tnbc@corp.supernews.com>
Source record: 72554
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

My, that's just too good to pass up. An opportunity to have a title bestowed by the esteemed and widely respected authority on etiquette and gee, who knows what else, NunYa Bidness.

Roy Lewallen, W7EL
-- now with yet another title, FAI

NunYa Bidness wrote:
>
> Who said that I was pissed? I am merely declaring those retards
> that do top post what exactly they are... fucking abject idiots.
> Try again.

3591. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 00:52:19 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <Dc2dnQhSbNaF43TfRVn-uQ@comcast.com>
Source record: 72555

John, I'm very serious when I say that 'white noise' is critical to Colpitts/Hartley oscillator operation.

The feedback equation for oscillation requires a voltagecurrent gain greater than 1 and a phase shift of 180 degrees [in simplified terms].

Starting conditions, in the absence of white noise, has zero input voltage and hence zero output voltage and therefore no oscillation! The presence of white noise provides the starting conditions, the Vin to be amplified, and the tuned circuit, L and C, provides the frequency discrimination, and the fundamental frequency of the oscillator. The Capacitive voltage divider [Colpitts] or the Inductive voltage divider [Hartley] provides the feedback factor. The active device, tube, transistor, FET, etc. provides the gain and contributes to the phase shift.

White noise, frequency selectivity, gain greater than 1, and 180 degrees phase shift are absolute requirements for an oscillator. In the absence of any one there is NO oscillator. The white noise provides the starting conditions for oscillation!!!

John Smith wrote:
> Hmmm...
>
> No, I don't believe I will have to read anything...
>
> But, if you can't tell the difference between a white noise generator and an
> osc giving a clean fundamental signal with greatly suppressed/filtered
> harmonics (or even, non-existent harmonics), you may wish to read-up before
> taking that project to the air...
>
> John

3592. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 00:57:42 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <huedncRMFcfG4nTfRVn-sA@comcast.com>
Source record: 72556

Does that mean you don't maintain your equipment or know what to look
for when you open the cover?

Amateur Radio is supposed to encourage self learning in some [SOME]
phase of the electronic disciplines associated with the generation,
transmission, and reception of electromagnetic signals.

I consider that self learning requires more than finding and using the
ON/OFF button.

John Smith wrote:

> ... in the "olden days" it was expected you would be building that equipment
> you were being tested on ...
>
> ... of course logic and reason now demands the removal of those questions ...
>
> John
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:a5KdnQxiPO-303TfRVn-qA@comcast.com...
>
>>Caveat Lector wrote:
>>
>>
>>>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>>a swinging choke ??
>>>
>>>Then why ask these questions on a 2005 Ham test ??
>>>
>>>Maybe ask about a VCO or a crowbar circuit ??
>>
>>You miss the point! Totally missed the point!!
>>
>>In the 'olden days', the exams were not multiple guess questions; and, they
>>were answered in front of an FCC Engineer. In the olden days one had to
>>commit to some real effort to get a license. In human nature we VALUE that
>>which we work for or invest for.
>>
>>The crime in ham radio today is the 5 hour Saturday morning cram session
>>followed by a VE session; followed by a license; followed by loss of interest
>>in a year or so.
>>
>>I live in a small town with 14 licensed 'hams' with only one active [me] and
>>only one HF station [mine].

>>
>>IMO there is a significant difference between number of licenses issued or
>>valid and how many hams are on the air.
>>
>
>
>

3593. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 00:58:58 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <huedncdMFcc74nTfRVn-sA@comcast.com>
Source record: 72557

Point well made!! AMEN !!

Fred W4JLE wrote:

> The same day I took the test for General, I also took and passed all
> requirements for a first class Phone with RADAR endorsement. The engineer
> administering the test told me if I wanted to take a really tough test, the
> amateur extra was the most difficult given by the FCC.
>
> Unfortunately at that time one had to wait a year to take advanced and two
> years to take the Extra. I would sure like to see them reinstate the time
> requirements so some of these young bucks could get a little seasoning
> before advancing. Today you can get it all in one day. Then armed with your
> brand new Extra; proceed to E-Ham and ask questions in the Elmer conference
> that could be answered by an old time novice.
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
>
>
>>The required level of knowledge for a license today is significantly
>>poorer than 40 or 50 years ago.
>>
>>
>
>
>

3594. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 01:14:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HpfGe.332$Qd5.5958717@news.sisna.com>
Source record: 72559

Ham op:

Absolutely! Any amp is an oscillator, any oscillator is an amp... just depends on how ya use it (mainly feedback.)

There is also the subjects of "thermal noise" and "quantum noise", both contribute to the ease which with a circuit begins and sustains oscillations...

Well, unless the laws of physics have changed!

John

"Ham op" <hamop@comcast.net> wrote in message news:Dc2dnQhSbNaF43TfRVn-uQ@comcast.com...
> John, I'm very serious when I say that 'white noise' is critical to
> Colpitts/Hartley oscillator operation.
>
> The feedback equation for oscillation requires a voltagecurrent gain greater
> than 1 and a phase shift of 180 degrees [in simplified terms].
>
> Starting conditions, in the absence of white noise, has zero input voltage
> and hence zero output voltage and therefore no oscillation! The presence of
> white noise provides the starting conditions, the Vin to be amplified, and
> the tuned circuit, L and C, provides the frequency discrimination, and the
> fundamental frequency of the oscillator. The Capacitive voltage divider
> [Colpitts] or the Inductive voltage divider [Hartley] provides the feedback
> factor. The active device, tube, transistor, FET, etc. provides the gain and
> contributes to the phase shift.
>
> White noise, frequency selectivity, gain greater than 1, and 180 degrees
> phase shift are absolute requirements for an oscillator. In the absence of
> any one there is NO oscillator. The white noise provides the starting
> conditions for oscillation!!!
>
> John Smith wrote:
>> Hmmm...
>>
>> No, I don't believe I will have to read anything...
>>
>> But, if you can't tell the difference between a white noise generator and an
>> osc giving a clean fundamental signal with greatly suppressed/filtered
>> harmonics (or even, non-existent harmonics), you may wish to read-up before
>> taking that project to the air...
>>
>> John
>

3595. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 01:42:37 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <kQfGe.344$CB5.6182112@news.sisna.com>
Source record: 72560

Ham op:

Just where do you get a soldering iron which is small enough to deal with smc components, these boards are done by machine. The world has gone surface mount technology yanno...

I only work on the mikes, low pass/high pass/bandpass filters, linears and feedlines, antennas, parts which are still big enough to handle...

My receiver is a PCI card for my computer (100khz-180Mhz, there are a couple of birdies on the 2.8Ghz it is mounted in, these were not apparent when it was in a 900Mhz motherboard) and the xmitter is a continuous full coverage 3-5 watt transmitter PCI card 100khz-250mhz... computer sound card doubles as the output audio for the receiver and dsp mike input for the transmitter... driver/linear is external... different faces(skins) for the receiver (on the monitor) are software selectable, any mode is possible, with the proper software--even those NOT invented yet...

My "equip" is pretty much my computer these days, but I do have some ancient gonset, johnson, hallicrafters, drake which I have not used in over a year.

Got some heavy duty chicken band equip too, but the computer is highly capable of 11 meters, but not type accepted for CB...

John

John

"Ham op" <hamop@comcast.net> wrote in message
news:huedncRMFcfG4nTfRVn-sA@comcast.com...
> Does that mean you don't maintain your equipment or know what to look for
> when you open the cover?
>
> Amateur Radio is supposed to encourage self learning in some [SOME] phase of
> the electronic disciplines associated with the generation, transmission, and
> reception of electromagnetic signals.
>
> I consider that self learning requires more than finding and using the ON/OFF
> button.
>
> John Smith wrote:
>
>> ... in the "olden days" it was expected you would be building that equipment
>> you were being tested on ...
>>
>> ... of course logic and reason now demands the removal of those questions
>> ...

>>
>> John
>>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:a5KdnQxiPO-303TfRVn-qA@comcast.com...
>>
>>>Caveat Lector wrote:
>>>
>>>
>>>>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>>>a swinging choke ??
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>>>>Then why ask these questions on a 2005 Ham test ??
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>>>>Maybe ask about a VCO or a crowbar circuit ??
>>>
>>>You miss the point! Totally missed the point!!
>>>
>>>In the 'olden days', the exams were not multiple guess questions; and, they
>>>were answered in front of an FCC Engineer. In the olden days one had to
>>>commit to some real effort to get a license. In human nature we VALUE that
>>>which we work for or invest for.
>>>
>>>The crime in ham radio today is the 5 hour Saturday morning cram session
>>>followed by a VE session; followed by a license; followed by loss of
>>>interest in a year or so.
>>>
>>>I live in a small town with 14 licensed 'hams' with only one active [me] and
>>>only one HF station [mine].
>>>
>>>IMO there is a significant difference between number of licenses issued or
>>>valid and how many hams are on the air.
>>>
>>
>>
>>
>

3596. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:02:09 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <445ea$42e98e2d$97d55a77$6733@ALLTEL.NET>
Source record: 72562

Nonsense John, today's college graduate is more in line with the high school graduates of the fifties. I hired enough of your "highly educated" graduates to be more than a casual observer.

They knew every thing there was to know about political correctness, liberal thinking, and how to bitch if they were not given everything on a platter the day they hired in.

I assigned an engineer the task of designing a simple serial interface to a piece of equipment. He told me "we didn't cover that in school". Today A's are passed out to everyone, in some schools, so as not to make the others feel bad.

Give me an old time ham or a Navy trained technician, at least they had the basics. Many of today's graduates are over paid at minimum wage.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:RreGe.315$CX4.5834912@news.sisna.com...
> Fred:
>
> Yes. But those were simple times when much of what we take for granted
today
> loomed before us as dark mysteries...
>
> Things are much more complex these days, BS, MS, PHD's are much more
common per
> capita and the general knowledge of the common person on the street is
> magnitudes greater than the times you are speaking of.
>
> No longer are people with a bit of knowledge in such demand.
>
> Our colleges turn out highly educated individuals in vast numbers which
stagger
> the imagination. Indeed, seats in colleges are filled far too quickly,
leaving
> no room for those not fortunate to gain entrance.
>
> It is quite possible the person you see before you in a lowly public
service
> position has a degree.
>
> Across the board, +25% of all college grads are working at or near minimum
wage
> in a field outside their course of study--five years after they graduate;
I

> suspect this figure, which the colleges themselves claim, is rather low...
>
> John
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:ca5de$42e970bc$97d55a77$2074@ALLTEL.NET...
> > The same day I took the test for General, I also took and passed all
> > requirements for a first class Phone with RADAR endorsement. The
engineer
> > administering the test told me if I wanted to take a really tough test,
the
> > amateur extra was the most difficult given by the FCC.
> >
> > Unfortunately at that time one had to wait a year to take advanced and
two
> > years to take the Extra. I would sure like to see them reinstate the
time
> > requirements so some of these young bucks could get a little seasoning
> > before advancing. Today you can get it all in one day. Then armed with
your
> > brand new Extra; proceed to E-Ham and ask questions in the Elmer
conference
> > that could be answered by an old time novice.
> >
> > "Ham op" <hamop@comcast.net> wrote in message
> > news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
> >
> >> The required level of knowledge for a license today is significantly
> >> poorer than 40 or 50 years ago.
> >>
> >>
> >
> >
>
>

3597. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:07:28 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <io3je191qigkmnom2uo6ctbodqrc2ulicr@4ax.com>
Source record: 72563
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Thu, 28 Jul 2005 17:16:06 -0700, Roy Lewallen <w7el@eznec.com> Gave
us:

>My, that's just too good to pass up. An opportunity to have a title
>bestowed by the esteemed and widely respected authority on etiquette and
>gee, who knows what else, NunYa Bidness.
>
>Roy Lewallen, W7EL
> -- now with yet another title, FAI

Like I said before... You seem all too willing to conform to the
standards and practices of the HAM world. What is so different about
this forum, and doing things the way they have always been done here?
Why do you have to blatantly display your unwillingness to conform to
what has long been the accepted practice?

Screw you, and your hypocrisy.
Yet another idiot, you are.
The word for today is CONFORM

3598. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:15:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <mjgGe.348$606.6559862@news.sisna.com>
Source record: 72572

Fred:

I disagree. Most of the problems we see in academia is that the mindset has changed. Older personalities have quite some difficulty in coping with the new generations, it has always been like that though, just more intense in this age (but what isn't?)

The oldsters have a "control freak" attitude which the youngsters are not properly trained to deal with, I think the parents used to take care of this, and we in academia have failed the youngsters in not picking up as part of their training and education, when the mothers left home for work.

And these new grads are a real and present danger to the oldsters, and we know it. The corps know it to, they can have a handful of these new grads for what one of us old farts demand for our "experience." (ancient historical knowledge)

I felt them a threat to, and the young guys with those new minds can come up with new ideas with blazing speed. R&D ends up being a roomful of these guys and one old guy keeping heard over their "enthusiasm."

The "generation gap" is wider than ever, and you need the "right guys" in senior positions which can interact with the new minds. Truth is, if you are 55 these days, you'd better think about retiring--before you embarrass your self or others about you...

The world is changing as much as when the cotton gin was invented--most of the people back then died off without never being able to adapt to the "industrial age." We are just seeing it happen all again, but many are unaware of this history--and so end up repeating the same mistakes.

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:445ea$42e98e2d$97d55a77$6733@ALLTEL.NET...
> Nonsense John, today's college graduate is more in line with the high school
> graduates of the fifties. I hired enough of your "highly educated"
> graduates to be more than a casual observer.
>
> They knew every thing there was to know about political correctness, liberal
> thinking, and how to bitch if they were not given everything on a platter
> the day they hired in.
>
> I assigned an engineer the task of designing a simple serial interface to a
> piece of equipment. He told me "we didn't cover that in school". Today A's
> are passed out to everyone, in some schools, so as not to make the others
> feel bad.
>

> Give me an old time ham or a Navy trained technician, at least they had the
> basics. Many of today's graduates are over paid at minimum wage.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:RreGe.315$CX4.5834912@news.sisna.com...
>> Fred:
>>
>> Yes. But those were simple times when much of what we take for granted
> today
>> loomed before us as dark mysteries...
>>
>> Things are much more complex these days, BS, MS, PHD's are much more
> common per
>> capita and the general knowledge of the common person on the street is
>> magnitudes greater than the times you are speaking of.
>>
>> No longer are people with a bit of knowledge in such demand.
>>
>> Our colleges turn out highly educated individuals in vast numbers which
> stagger
>> the imagination. Indeed, seats in colleges are filled far too quickly,
> leaving
>> no room for those not fortunate to gain entrance.
>>
>> It is quite possible the person you see before you in a lowly public
> service
>> position has a degree.
>>
>> Across the board, +25% of all college grads are working at or near minimum
> wage
>> in a field outside their course of study--five years after they graduate;
> I
>> suspect this figure, which the colleges themselves claim, is rather low...
>>
>> John
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:ca5de$42e970bc$97d55a77$2074@ALLTEL.NET...
>> > The same day I took the test for General, I also took and passed all
>> > requirements for a first class Phone with RADAR endorsement. The
> engineer
>> > administering the test told me if I wanted to take a really tough test,
> the
>> > amateur extra was the most difficult given by the FCC.
>> >
>> > Unfortunately at that time one had to wait a year to take advanced and
> two
>> > years to take the Extra. I would sure like to see them reinstate the
> time
>> > requirements so some of these young bucks could get a little seasoning

>> > before advancing. Today you can get it all in one day. Then armed with
> your
>> > brand new Extra; proceed to E-Ham and ask questions in the Elmer
> conference
>> > that could be answered by an old time novice.
>> >
>> > "Ham op" <hamop@comcast.net> wrote in message
>> > news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
>> >
>> >> The required level of knowledge for a license today is significantly
>> >> poorer than 40 or 50 years ago.
>> >>
>> >>
>> >
>> >
>>
>>
>
>

3599. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:28:13 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2vgGe.352$226.6590609@news.sisna.com>
Source record: 72564
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa:

Do you even know about that man you just insulted?

I grew up reading articles of his in publications. You picked the wrong personality there... you just DO NOT realize EXACTLY how much you have telegraphed your stupidity--but trust me, you could NOT have done it better...

You would be hard pressed to ever prove yourself his equal...

John

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message news:io3je191qigkmnom2uo6ctbodqrc2ulicr@4ax.com...
> On Thu, 28 Jul 2005 17:16:06 -0700, Roy Lewallen <w7el@eznec.com> Gave
> us:
>
>>My, that's just too good to pass up. An opportunity to have a title
>>bestowed by the esteemed and widely respected authority on etiquette and
>>gee, who knows what else, NunYa Bidness.
>>
>>Roy Lewallen, W7EL
>> -- now with yet another title, FAI
>
>
> Like I said before... You seem all too willing to conform to the
> standards and practices of the HAM world. What is so different about
> this forum, and doing things the way they have always been done here?
> Why do you have to blatantly display your unwillingness to conform to
> what has long been the accepted practice?
>
> Screw you, and your hypocrisy.
> Yet another idiot, you are.
> The word for today is CONFORM

3600. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:41:27 UTC
From: Mark Veldhuis <me@privacy.net>
Message-ID: <dcc50npud1@news5.zwoll1.ov.home.nl>
Source record: 72565

Hi,

In article <4avhe1duludfoedb8nu7g480man5miej6v@4ax.com>,
kb7qhc@comcast.net says...

> Sounds like a ground loop. If you are using the Antenna Interface,
> make all connections that give you this interference. Now, disconnect
> the power lead to the Antenna Interface. If the noise goes away, you
> have a ground loop that is associated with where your power to this
> unit comes from, and what you are using as the ground for your
> IC-R75.

I remember trying that before, and it did stop the noise indeed.
But... If it's a ground loop, wouldn't it be there all the time?
I'm asking because I came home tonight, connected the antenna, and...now
noise, no buzz! That too happened before, but the noise was back less
than half a day later. :(
So, could this still be a ground loop? And if so, how do I go about
getting rid of it? Is it an easy thing to do for someone non-technical
like me?

I am not using any ground for my R75 at the moment. With my previous
antenna setup, a longwire with MLB, I had a ground rod. And it did
absolutely nothing, it didn't make any difference at all...

Thanks for the help!
--

73',

Mark Veldhuis.

3601. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:53:09 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <a40je153kq0hot5is7vlbb7oaejrv52l0e@4ax.com>
Source record: 72566

On Thu, 28 Jul 2005 08:18:49 -0700, "Caveat Lector"
<UALLBeware@9984reader.com> wrote:

>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>a swinging choke ??
>
>Then why ask these questions on a 2005 Ham test ??
>
>Maybe ask about a VCO or a crowbar circuit ??

Okay, draw me a circuit of a Colpitts VCO. Why you apparently think
these are obsolete is beyond me. All sine wave oscillators, LC or
crystal, are basically the same circuit with the only variable being
the location of the rf common point.

A lot of modern high voltage supplies would be better off if they had
swinging chokes in them. My "modern" 8877 amp power supply uses a
resonant choke.

3602. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 02:59:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <FYgGe.357$sk6.6721565@news.sisna.com>
Source record: 72567

Wes:

Those osc are a thing of the past...

Bring a junk am broadcast radio near your computer, you will hear literal
dozens (well, a bunch anyway!) of osc's freqs going on there, probably not one
being generated by a colpitts, hartley or pierce osc circuit...
And, with the proper processing, all those waves could be a sine...

John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:a40je153kq0hot5is7vlbb7oaejrv52l0e@4ax.com...
> On Thu, 28 Jul 2005 08:18:49 -0700, "Caveat Lector"
> <UALLBeware@9984reader.com> wrote:
>
>>Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>a swinging choke ??
>>
>>Then why ask these questions on a 2005 Ham test ??
>>
>>Maybe ask about a VCO or a crowbar circuit ??
>
> Okay, draw me a circuit of a Colpitts VCO. Why you apparently think
> these are obsolete is beyond me. All sine wave oscillators, LC or
> crystal, are basically the same circuit with the only variable being
> the location of the rf common point.
>
> A lot of modern high voltage supplies would be better off if they had
> swinging chokes in them. My "modern" 8877 amp power supply uses a
> resonant choke.

3603. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 03:11:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e99f51$1_2@spool9-west.superfeed.net>
Source record: 72568

Ham op wrote:
> The crime in ham radio today is the 5 hour Saturday morning cram session ...

Would that be a felony or a misdemeanor?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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3604. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 03:13:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42e99fe2$1_2@spool9-west.superfeed.net>
Source record: 72569

Reg Edwards wrote:
> I'm pleased you make use of the measurements conversions in some of my
> programs. Its just a small thing I can do to help paying back for what
> you Americans did by helping us poor Brits to win the war. ;o) ;o)
> ;o) ;o) ;o) ;o)

Hey Reg, guess where our English system of
measurements came from.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3605. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 03:44:50 UTC
From: KU2S <ku2s@arrl.net>
Message-ID: <gl9je1dhav3qi0gnjp7ouo2r11p3f8gmq4@4ax.com>
Source record: 72570

On Thu, 28 Jul 2005 23:24:52 -0000, "Dave" <noone@nowhere.com> wrote:

>
>"Butch Magee" <lynyrd@cableone.net> wrote in message
>news:11eipaog7rkfa0@corp.supernews.com...
>>> Well, it's up guys! The apex is about 40' and the ends are 28'.
>>> Comparing it to my other antennas I'm seeing about a 1-1/2 to
>>> 2 S unit improvement on 40m and more on the higher bands.
>>>
>>> I did a SWR plot before and after changing it and here's the
>>> sticking point: Before, I had a 2:1 range from 6.900-7.280 and
>>> now I've got 7.000-7.300 but the minimum SWR went from
>>> 1.10:1 to 1.55:1. My Elecraft KAT2 autotuner handles that very
>>> easily but I'm wondering what would happen if I added 12 feet
>>> to my 50' of 450 ohm ladder line? Would the minimum SWR
>>> get better or just move? Or both? Does it really matter? (I don't
>>> think it matters based on what I've read here).
>
>it doesn't matter! get on the air!
>

You're looking at MAYBE a three percent improvement in signal. As the
others have said, it's not broken, so why fix it?

Raymond Sirois KU2S
SysOp: The Lost Chord BBS
607-733-5745
telnet://thelostchord.dns2go.com:6023

3606. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 03:56:02 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <dNhGe.21218$Eo.14572@fed1read04>
Source record: 72571

Thanks to everyone for the help/tips/theory on my 40m & up
antenna project. It's working fb now.

Note: the 1.6:1 minimum SWR I was seeing went away after
the sun dried off the roof and feedline. Now I get a 1.1:1 or
better match. Still can't get a decent match on 12m. On 10m
my autotuner (Elecraft KAT2 internal) has to work hard to get
a match. It's not my only antenna for the upper bands so I'm
not too concerned.

Ken
--
Just my 2�... 73 es gd dx de Ken KG�WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

3607. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 03:58:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <FPhGe.369$4S6.6885523@news.sisna.com>
Source record: 72573

Cecil:

Would an anger management class, perhaps, be order for such an offense?

With the offender able to have all charges dismissed on successful completion
of the class?

Hate to see a fellow get a record for that...

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42e99f51$1_2@spool9-west.superfeed.net...
> Ham op wrote:
>> The crime in ham radio today is the 5 hour Saturday morning cram session ...
>
> Would that be a felony or a misdemeanor?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
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3608. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 04:10:25 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndejb1h.1evq.ben@saturn.home.ben.com>
Source record: 72574

On 2005-07-28, Fred W4JLE <w4jle@w4jle.com> wrote:
> Today you can get it all in one day. Then armed with your
> brand new Extra; proceed to E-Ham and ask questions in the Elmer conference
> that could be answered by an old time novice.

Don't be silly! The first thing any new ham learns on the internet
is that if you got your Extra after the 20wpm requirement was dropped,
your questions will meet with nothing but scorn and derision!

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

3609. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 04:21:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <n9iGe.372$Le7.7123032@news.sisna.com>
Source record: 72475

Ben:

Be patient, we are in the process of upgrading all the elmers to no-coders now.
Give us time, this is a major upgrade and results cannot be expected
immediately.

John

"Ben Jackson" <ben@ben.com> wrote in message
news:slrndejb1h.1evq.ben@saturn.home.ben.com...
> On 2005-07-28, Fred W4JLE <w4jle@w4jle.com> wrote:
>> Today you can get it all in one day. Then armed with your
>> brand new Extra; proceed to E-Ham and ask questions in the Elmer conference
>> that could be answered by an old time novice.
>
> Don't be silly! The first thing any new ham learns on the internet
> is that if you got your Extra after the 20wpm requirement was dropped,
> your questions will meet with nothing but scorn and derision!
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

3610. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 04:23:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ubbje1962mmjegiovuujiqekqn829qc3ib@4ax.com>
Source record: 72476

On Fri, 29 Jul 2005 04:41:27 +0200, Mark Veldhuis <me@privacy.net>
wrote:

>I remember trying that before, and it did stop the noise indeed.
>But... If it's a ground loop, wouldn't it be there all the time?

Hi Mark,

Your experience indicates otherwise. This is not unusual. I've had
ground loops that depended on the weather. As it is frequently rainy
here (Seattle), my problems would come and go with the CHANGE in the
weather.

>how do I go about
>getting rid of it? Is it an easy thing to do for someone non-technical
>like me?

Move the Interface power supply to the same outlet that you use to
power your R75. Check the ground of the AC socket and make sure your
wiring is not reversed (usually done with a small tester sold in most
hardware stores).

>I am not using any ground for my R75 at the moment.

Unless you are running solely off batteries, have no other connections
to the R75 whatever, naturally you are connected to ground. You
simply don't know how it is getting to the R75 is all, and this is the
usual configuration of those who suffer from ground loops.

>With my previous
>antenna setup, a longwire with MLB, I had a ground rod. And it did
>absolutely nothing, it didn't make any difference at all...

That's unusual to say the least. But it points out that whatever
ground you thought you had in the "ground rod" was simply duplicating
what already existed through the AC distribution system.

Another way to confirm is to replace the Interface power supply with a
battery pack.

73's
Richard Clark, KB7QHC

3611. Re: Raising a 40m dipole.....It's up! Now what?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 04:34:12 UTC
From: Owen <owen@no.where>
Message-ID: <t3bje1hdq6spaj9irfv5ub3dt1k58eb7ih@4ax.com>
Source record: 72477

On Fri, 29 Jul 2005 03:44:50 GMT, KU2S <ku2s@arrl.net> wrote:

>You're looking at MAYBE a three percent improvement in signal. As the
>others have said, it's not broken, so why fix it?

If I understood Ken's configuration on 7MHz, on my modelling adding about 14' to the ladder line would reduce the losses in the RG58 by about 1.5dB, which is a 40% increase in EIRP. Of course, that addresses performance on 40m only.

That is a lot more than the unsubstantiated "MAYBE a few percent".

It is up to Ken if he wants to chase 40%... perhaps that is why he asked the question in the first place. He might have an interest in understanding and learning, he might be one of the remaining folk who think that ham radio is "for the purpose of self-training, intercommunication and technical investigations" (from ITU RR 1.56).

One might think from Ken's first posting that he wants this antenna for 40m solely, but then he expressed disappointment with being unable to match up on 24MHz, so that creates some suspicion that he may be looking for a multi band or all band antenna.

Ken, if you can't match up on high bands, it is a warning that the impedance is outside the tuner's capacity, and probably outside good performance. Similarly, if the tuner does deliver low SWR but is very sharp in tuning, it is an indication that the "loaded Q" of the tuner is high and probably excessively lossy. Beware of matching an unknown antenna and being satisfied that it is good so long as you can "get the SWR down".

Owen
--

3612. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 09:24:44 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11ejteuijtvvv40@corp.supernews.com>
Source record: 72478

"results cannot be expected "

brilliant, absolutely brilliant

3613. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 10:45:22 UTC
From: "Rex.T" <nospam@noway.nohow.com>
Message-ID: <6bkje1105dsmm272t7d6diemdnpv1jpman@4ax.com>
Source record: 72479

On Thu, 28 Jul 2005 22:13:24 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Hey Reg, guess where our English system of
>measurements came from.

The Romans, the same as ours

Rex. T

3614. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 11:33:18 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <S9CdnRL-zo-6iXffRVn-oQ@comcast.com>
Source record: 72480

Class A felony, Life without parole.

Cecil Moore wrote:
> Ham op wrote:
>
>> The crime in ham radio today is the 5 hour Saturday morning cram
>> session ...
>
>
> Would that be a felony or a misdemeanor?

3615. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 11:36:49 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <mrSdnZN0zeJniXffRVn-1Q@comcast.com>
Source record: 72481

John Smith wrote:

> Ham op:
>
>SNIPPED
>
> I only work on the mikes, low pass/high pass/bandpass filters, linears and
> feedlines, antennas, parts which are still big enough to handle...
>
SNIPPED

Well at my age, I only work on stuff I can see. That is limited by aging shakes in my hands. But I can still find a screw driver somewhere, if I can find my glasses.

This morning I couldn't get out of bed when I woke up. I couldn't find the floor without my glasses. :-)

It's a shame yo get old!

3616. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 11:43:04 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <p8Sdnd8qt8Lvi3ffRVn-sA@comcast.com>
Source record: 72482

Fred W4JLE wrote:

> Nonsense John, today's college graduate is more in line with the high school
> graduates of the fifties. I hired enough of your "highly educated"
> graduates to be more than a casual observer.
>
> They knew every thing there was to know about political correctness, liberal
> thinking, and how to bitch if they were not given everything on a platter
> the day they hired in.
>
> I assigned an engineer the task of designing a simple serial interface to a
> piece of equipment. He told me "we didn't cover that in school". Today A's
> are passed out to everyone, in some schools, so as not to make the others
> feel bad.
>
> Give me an old time ham or a Navy trained technician, at least they had the
> basics. Many of today's graduates are over paid at minimum wage.

I hired many newly degreed engineers in the 1980s. It took 5 to 8 years
of actual work before they became real engineers. Several engineers from
'highly' accredited universities were dismissed because they wouldn't or
couldn't write a simple technical report.

Check the Harvard University graduation list. EVERYBODY is a high honors
graduate!!! More than 90% of Harvard graduates are high honors. I find
that hard to believe.

3617. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 12:13:36 UTC
From: GS <spam@limbo.hell>
Message-ID: <P3pGe.5982$d02.828621@news20.bellglobal.com>
Source record: 72484

Hi Reg,

My partner has built a similar antenna years ago with great success.

There are several antennas of this type in the world used primarily for military applications at the these bands.

If anyone is interested look at www.ve3sqb.com, maybe you can get him to post some of his research.

73's
Guenther VE3CVS
Degen Designs
www.degendesigns.com
info@degendesigns.com

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dcbipg$c94$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> Some years back I buried a 30 metre (60-feet) auminium wire one spade
> depth in my back garden. Wire was 1.5 mm in diameter. Soil
> resistivity about 100 ohm-metres. To scientists that's 10
> milli-Siemens. The near end of the wire came up in the shack. That's
> under my kitchen sink. It's still there. Open-circuit at the far end.
>
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet. I chose this length because it fitted
> nicely into my back garden. The front garden is too short even for an
> underground antenna.
>
> On the 160m band I fed into it about 30 watts from a home-brew
> transceiver so I can't provide for the record a manufacturer's type
> and serial number. However I still have the transceiver which can be
> inspected.
>
> Despite a high local noise level of S-6 I was able to communicate up
> to 60 miles with mobile stations in broad daylight on SSB. After
> sunset I could easily communicate with most of Europe on CW.
>
> I think a record of these buried antenna experiments should be kept
> for posterity, alongside the famous biblical work of B,L & E.
>
> By the way, as you see, I did remember to measure soil resistivity. It
> was the first thing I did. What buried wire do you think I used to
> measure it?

> ----
> Reg, G4FGQ
>
>

3618. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 12:18:36 UTC
From: Murray <vk4aok@kellymed.com>
Message-ID: <42ea1e97$0$5395$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 72483

Some of the lads here buried a wire (no counterpoise) in the
sand in the desert and successfully transmitted some
thousands of miles to the disbelief of the receiving
stations. No measurements of any scientific stuff
like soil conductivity, but. :-)

Cheers
Murray vk4aok

Reg Edwards wrote:
> Some years back I buried a 30 metre (60-feet) auminium wire one spade
> depth in my back garden. Wire was 1.5 mm in diameter. Soil
> resistivity about 100 ohm-metres. To scientists that's 10
> milli-Siemens. The near end of the wire came up in the shack. That's
> under my kitchen sink. It's still there. Open-circuit at the far end.
>
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet. I chose this length because it fitted
> nicely into my back garden. The front garden is too short even for an
> underground antenna.
>
> On the 160m band I fed into it about 30 watts from a home-brew
> transceiver so I can't provide for the record a manufacturer's type
> and serial number. However I still have the transceiver which can be
> inspected.
>
> Despite a high local noise level of S-6 I was able to communicate up
> to 60 miles with mobile stations in broad daylight on SSB. After
> sunset I could easily communicate with most of Europe on CW.
>
> I think a record of these buried antenna experiments should be kept
> for posterity, alongside the famous biblical work of B,L & E.
>
> By the way, as you see, I did remember to measure soil resistivity. It
> was the first thing I did. What buried wire do you think I used to
> measure it?
> ----
> Reg, G4FGQ
>

3619. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 13:00:03 UTC
From: "Harold E. Johnson" <w4zcb@mchsi.com>
Message-ID: <nLpGe.194932$_o.154111@attbi_s71>
Source record: 72485

> Reg Edwards wrote:
>> Some years back I buried a 30 metre (60-feet) auminium wire one spade
>> depth in my back garden. Wire was 1.5 mm in diameter. Soil
>> resistivity about 100 ohm-metres. To scientists that's 10
>> milli-Siemens. The near end of the wire came up in the shack. That's
>> under my kitchen sink. It's still there. Open-circuit at the far end.

Reg, was that 30 meters and 90 feet or 60 feet and 20 meters? Just for us mathematically challenged.

W4ZCB

3620. Tuning the Butternut HF6V for 80 m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 13:18:45 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dcdabjaoi1@mailhub227.itcs.purdue.edu>
Source record: 72486

I am using a Palstar ZM-30 antenna bridge to tune my new Butternut HF6V vertical antenna. The antenna is ground-mounted, and the ground system consists of 32 wires with an average length of about 30 feet laid on the top of clay soil.

I have no problem finding resonance on 80 m, but the impedance at resonance seems to be low. The adjustment instructions for the HF6V state that air-wound coil (Q), at the base of the antenna, should be adjusted "for even lower VSWR" by stretching the coil. Coil (Q) is installed as a shunt at the feedpoint of the vertical.

I have made all measurements at the antenna, i.e., at the junction of the coax 75 ohm matching section and the main 52 ohm transmission line. When coil (Q) is fully compressed, length of about 2.5 in, I measure an impedance (at resonance) of 20 ohms (SWR?2.5) . When the coil is expanded to a length of about 4.75 in, I measure an impedance of 25 ohms, corresponding to an SWR of about 2.0.

The problem is that I have run out of lead length to expand the coil. Should I leave things where they are now, or should I wind a new coil with about half the turns and continue with my measurements?

John, N9JG

3621. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 14:08:35 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <e9dke15julrg0dteqgvn0dl163mf1i05ml@4ax.com>
Source record: 72487

On Thu, 28 Jul 2005 19:59:49 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Wes:
>
>Those osc are a thing of the past...

I beg to differ.

>
>Bring a junk am broadcast radio near your computer, you will hear literal
>dozens (well, a bunch anyway!) of osc's freqs going on there, probably not one
>being generated by a colpitts, hartley or pierce osc circuit...
>And, with the proper processing, all those waves could be a sine...

In all likelyhood, the master clock oscillator for the microprocessor
is a Pierce xtal oscillator. All of the other garbage is derived from
that. There may also be plug-in cards with their own clock, most
likely another Pierce.

In case you've forgotten, these are -digital- circuits, sine waves
need not apply.

Why you guys think that the computer guys have invented some new
-magic- oscillator is beyond me. Wait a minute..... maybe I understand
after all.

3622. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 14:56:47 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <IsrGe.22435$HV1.3739@fed1read07>
Source record: 72488

Thank you - curiosity satisfied.
Just curious as how often these are used today
I do know about colpitts, hartley, pierce, wien, clapp, TGTP, relaxation,
crystal, negative resistance, dynatron, etc
Anyone remember the dynatron oscillator? Tetrodes me lads tetrodes.

--
CL -- I doubt, therefore I ask

"Ham op" <hamop@comcast.net> wrote in message
news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
> Caveat Lector wrote:
>
>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator
>> or a swinging choke ??
>>
>> Then why ask these questions on a 2005 Ham test ??
>>
>> Maybe ask about a VCO or a crowbar circuit ??
>
>
> All of them!!! The reference oscillator in every phase locked loop is
> generally a Colpitt's oscillator. I suspect that every oscillator in the
> VCO circuit is also Colpitt's.
>
> By simply asking the question you make the point!!!
>
> The required level of knowledge for a license today is significantly
> poorer than 40 or 50 years ago.
>
>

3623. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:08:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcdgp7orc1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72489

> Reg, was that 30 meters and 90 feet or 60 feet and 20 meters? Just for us > mathematically challenged.
>
> W4ZCB
>
==========
Harrold,

To be exact, 30 meters = 98.43 feet.

It was NOT a deliberate mistake to check on how much interest would be displayed in the experiment by readers. But it could have been. ;o)

I did swap the connections between antenna and counterpoise and, as you can guess, it didn't make a scrap of difference.

The underground antenna ended up in a bunch of other radials. But the best radial I have is the incoming domestic water main which is terminated at its other end by 100,000 miles of underground pipes feeding the whole of the Black Country (where it all began) and the Great City of Birmingham (which yesterday suffered a tornado due to Earth warming climatic changes caused by American pollution of the atmosphere).

It was only the day before that life in the city was disrupted by police raids on houses alleged to be occupied by unsuccessful suicide bombers. Birmingham, in opposition to Manchester, will do anything to get into the news!

Reg.

3624. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:11:24 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7994e$42ea473b$97d55eb8$24127@ALLTEL.NET>
Source record: 72490

Remember the golden rule!

"He who has the gold makes the rules" We old farts have it and the young bucks want it, makes us right no matter what!

It is my intention to be a professional curmudgeon until I am looking at the grass from the bottom...

"John Smith" <assemblywizard@gmail.com> wrote in message news:mjgGe.348$606.6559862@news.sisna.com...
> Fred:
>
> I disagree. Most of the problems we see in academia is that the mindset has
> changed. Older personalities have quite some difficulty in coping with the new
> generations, it has always been like that though, just more intense in this age
> (but what isn't?)

3625. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:16:30 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <45c4$42ea486e$97d55eb8$24256@ALLTEL.NET>
Source record: 72491

The three most important things in life are attitude, attitude, and attitude. Many of the new hams have yet to learn that lesson. It is my experience that scorn and derision are heaped on the deserving!

"Ben Jackson" <ben@ben.com> wrote in message news:slrndejb1h.1evq.ben@saturn.home.ben.com...
> On 2005-07-28, Fred W4JLE <w4jle@w4jle.com> wrote:
> Don't be silly! The first thing any new ham learns on the internet
> is that if you got your Extra after the 20wpm requirement was dropped,
> your questions will meet with nothing but scorn and derision!
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

3626. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:31:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2a2fc$42ea4be3$97d55eb8$11842@ALLTEL.NET>
Source record: 72492

And thus the reason for "No Code / Slow Code".

The mantra today is "I want it so give it to me!"

Then justify it by claming those that have learned the requirements are just trying to feel superior. A real no no in these days of no score soccer games...

Someday they will realize the animus is not about code, it is about their attitudes.

"Ham op" <hamop@comcast.net> wrote in message news:p8Sdnd8qt8Lvi3ffRVn-sA@comcast.com...
> Check the Harvard University graduation list. EVERYBODY is a high honors
> graduate!!! More than 90% of Harvard graduates are high honors. I find
> that hard to believe.
>

3627. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:32:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ea4d4d$1_2@spool9-west.superfeed.net>
Source record: 72494

tclay@qmc.ph.msstate.edu wrote:
> You CANNOT superimpose POWERS, ...

Hi Tor, I appologize that the earlier energy flow chart
was not drawn as well as it might have been. I've expanded
that chart in the following and provided the power management
equations associated with the superposition of EM fields. The
'X' event is the initial reflection event at the first
discontinuity, point A. The 'Y' event is the initial reflection
event at the second discontinuity, point B. The 'Z' event is the
initial re-reflection event back at point A.

```
100W 1/4WL
XMTR---50 ohm---+--------100 ohm---------+---200 ohm---200 load
feedline A feedline B feedline
```

Just before the first reflection arrives back at A

```
Pfor(50) | |
100W-->--X |
X-->--+ |
11.11W--<--X \ Pfor(100) |
Pref(50) | +-->--88.89W-->--Y
| Y-->--79.01W
| +--<--9.876W--<--Y Pfor(200)
| / Pref(100) |
| <--+ |
| |
```

Just after the first reflection arrives back at A

```
Pfor(50) | Pfor(100) |
100W-->--X 109.67W |
X-->--+ |
11.11W--<--X \ P1 |
P3 | +-->--88.89W-->--Y
| Y-->--79.01W
Pref(50) | +--<--9.876W--<--Y Pfor(200)
0.139W | / Pref(100) |
Z--<--+ |
8.779W--<--Z |
P4 Z-->--1.097W |
| P2 |
```

P1 = Pfor(50)*(1-rho^2), P2 = Pref(100)*rho^2

P3 = Pref(100)*(1-rho^2), P4 = Pfor(50)*rho^2

How much destructive interference between wave(P3) and wave(P4)?

Pref(50) = P3 + P4 - 2*sqrt(P3*P4) = 11.11W + 8.779W - 19.75W = 0.139W

19.75W of destructive interference, negative since cos(180)=-1

How much constructive interference between wave(P1) and wave(P2)?

Pfor(100) = P1 + P2 + 2*sqrt(P1*P2) = 88.89W + 1.097W + 19.75W = 109.67W

19.75W of constructive interference, positive since cos(0)=+1

Destructive interference energy = constructive interference energy
(toward the source) (toward the load)

It follows that |P1*P2| = |P3*P4| in order to satisfy the conservation
of energy principle.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3628. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:33:50 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <r%rGe.22442$HV1.8489@fed1read07>
Source record: 72493

Nope the FCC makes the rules
You can beat up on the new non-technical hams OR help them
The choice is yours.
In our area, we run a weekly 2M Ham Help net
Our repeater is open to any technical question, no matter how basic.
Periodic classes are conducted for Tech and General -- success rate is quite high.

And many of our no-code Techs are very active in emergency communications, PR communicators, field day, and many other useful avenues of ham radio.
Quite a number have advanced to General and Extra.

The times is a changing -- Bob Dylan

--
CL -- A 20 wpm Extra since 1979

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:7994e$42ea473b$97d55eb8$24127@ALLTEL.NET...
> Remember the golden rule!
>
> "He who has the gold makes the rules" We old farts have it and the young
> bucks want it, makes us right no matter what!
>
> It is my intention to be a professional curmudgeon until I am looking at
> the
> grass from the bottom...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:mjgGe.348$606.6559862@news.sisna.com...
>> Fred:
>>
>> I disagree. Most of the problems we see in academia is that the mindset
> has
>> changed. Older personalities have quite some difficulty in coping with
> the new
>> generations, it has always been like that though, just more intense in
> this age
>> (but what isn't?)
>
>

3629. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:37:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <15166$42ea4d5a$97d55eb8$12285@ALLTEL.NET>
Source record: 72495

Negative resistance comes to mind...

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:IsrGe.22435$HV1.3739@fed1read07...

> Anyone remember the dynatron oscillator? Tetrodes me lads tetrodes.
>
> --
> CL -- I doubt, therefore I ask
>
>
>
>
>
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
> > Caveat Lector wrote:
> >
>> Just out of curousity -- what modern Ham gear uses a Colpitts
oscillator
>> or a swinging choke ??
>>
>> Then why ask these questions on a 2005 Ham test ??
>>
>> Maybe ask about a VCO or a crowbar circuit ??
> >
> >
> > All of them!!! The reference oscillator in every phase locked loop is
> > generally a Colpitt's oscillator. I suspect that every oscillator in
the
> > VCO circuit is also Colpitt's.
> >
> > By simply asking the question you make the point!!!
> >
> > The required level of knowledge for a license today is significantly
> > poorer than 40 or 50 years ago.
> >
> >
>
>

3630. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:43:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ea4fdf$1_2@spool9-west.superfeed.net>
Source record: 72496

Fred W4JLE wrote:
> The mantra today is "I want it so give it to me!"

My dog is like that but I love her anyway. And it's typical
of most animal species. So shouldn't the blame lie instead
with the governmental bureaucrats who freely dole out the
welfare packages?
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3631. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:46:31 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <kbsGe.22444$HV1.22114@fed1read07>
Source record: 72497

Indeed negative resistance it be

A tetrode with grid and plate potentials so arranged that plate current
decreases when plate potential increases.

--
CL -- I doubt, therefore I might be !

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:15166$42ea4d5a$97d55eb8$12285@ALLTEL.NET...
> Negative resistance comes to mind...
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:IsrGe.22435$HV1.3739@fed1read07...
>
>> Anyone remember the dynatron oscillator? Tetrodes me lads tetrodes.
>>
>> --
>> CL -- I doubt, therefore I ask
>>
>>
>>
>>
>>
>>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
>> > Caveat Lector wrote:
>> >
>> >> Just out of curousity -- what modern Ham gear uses a Colpitts
> oscillator
>> >> or a swinging choke ??
>> >>
>> >> Then why ask these questions on a 2005 Ham test ??
>> >>
>> >> Maybe ask about a VCO or a crowbar circuit ??
>> >
>> >
>> > All of them!!! The reference oscillator in every phase locked loop is
>> > generally a Colpitt's oscillator. I suspect that every oscillator in
> the
>> > VCO circuit is also Colpitt's.
>> >

>> > By simply asking the question you make the point!!!
>> >
>> > The required level of knowledge for a license today is significantly
>> > poorer than 40 or 50 years ago.
>> >
>> >
>>
>>
>
>

3632. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:50:41 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <dfsGe.22445$HV1.17424@fed1read07>
Source record: 72498

```
Bob Dylan song lyrics

Come mothers and fathers
Throughout the land
And don't criticize
What you can't understand
Your sons and your daughters
Are beyond your command
Your old road is
Rapidly changin'.
Please get out of the new one
If you can't lend your hand
For the times they are a-changin'.

--
CL -- I doubt, therefore I might be !

> The times is a changing -- Bob Dylan
>
> --
> CL -- A 20 wpm Extra since 1979
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:7994e$42ea473b$97d55eb8$24127@ALLTEL.NET...
>> Remember the golden rule!
>>
>> "He who has the gold makes the rules" We old farts have it and the young
>> bucks want it, makes us right no matter what!
>>
>> It is my intention to be a professional curmudgeon until I am looking at
>> the
>> grass from the bottom...
>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:mjgGe.348$606.6559862@news.sisna.com...
>>> Fred:
>>>
>>> I disagree. Most of the problems we see in academia is that the mindset
>> has
>>> changed. Older personalities have quite some difficulty in coping with
>> the new
>>> generations, it has always been like that though, just more intense in
>> this age
```

```
>>> (but what isn't?)
>>
>>
>
>
```

3633. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 15:59:36 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <OnsGe.42$wu5.1184915@news.sisna.com>
Source record: 72499

Ham op:

I am in my 50's, age is becoming a bit of a problem here, I can extrapolate and get some kind of a picture of it being a bit more of a problem for you then--if you are older.

Your posts certainly don't reflect such limitations, although we may be "out of sync" on some points, you pose good conversation.

Remember, when all is said and done, we must shake hands and have a drink together...

John

"Ham op" <hamop@comcast.net> wrote in message news:mrSdnZN0zeJniXffRVn-1Q@comcast.com...
> John Smith wrote:
>
>> Ham op:
>> SNIPPED
>>
>> I only work on the mikes, low pass/high pass/bandpass filters, linears and
>> feedlines, antennas, parts which are still big enough to handle...
>>
> SNIPPED
>
> Well at my age, I only work on stuff I can see. That is limited by aging
> shakes in my hands. But I can still find a screw driver somewhere, if I can
> find my glasses.
>
> This morning I couldn't get out of bed when I woke up. I couldn't find the
> floor without my glasses. :-)
>
> It's a shame yo get old!
>

3634. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:08:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <hwsGe.45$bv5.1195041@news.sisna.com>
Source record: 72500

Fred:

YOU HAVE SPIRIT MAN!!!

You have spirit!
<chuckle>

There is room for us, don't let 'em tell ya different--I am plotting to hang in
there too!!!

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:7994e$42ea473b$97d55eb8$24127@ALLTEL.NET...
> Remember the golden rule!
>
> "He who has the gold makes the rules" We old farts have it and the young
> bucks want it, makes us right no matter what!
>
> It is my intention to be a professional curmudgeon until I am looking at the
> grass from the bottom...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:mjgGe.348$606.6559862@news.sisna.com...
>> Fred:
>>
>> I disagree. Most of the problems we see in academia is that the mindset
> has
>> changed. Older personalities have quite some difficulty in coping with
> the new
>> generations, it has always been like that though, just more intense in
> this age
>> (but what isn't?)
>
>

3635. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:11:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ea5665$1_1@spool9-west.superfeed.net>
Source record: 72501

John Smith wrote:
> Remember, when all is said and done, we must shake hands and have a drink
> together...

Would that be in heaven or the other place? :-)
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3636. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:14:49 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <5CsGe.46$Ao5.1128591@news.sisna.com>
Source record: 72502

Caveat:

Repeaters have always been as much fun for me as a phone line, and I end up using a phone mainly for business. (the internet is great though--IRC chat, IM, messengers, newsgroups, etc)

Standalone HF equip is just a whole 'nother world. Frankly, I am glad I have found agreement in "newbie hams."

No one likes to be such a total freak there are none in agreement!

John

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:r%rGe.22442$HV1.8489@fed1read07...
> Nope the FCC makes the rules
> You can beat up on the new non-technical hams OR help them
> The choice is yours.
> In our area, we run a weekly 2M Ham Help net
> Our repeater is open to any technical question, no matter how basic.
> Periodic classes are conducted for Tech and General -- success rate is quite
> high.
>
> And many of our no-code Techs are very active in emergency communications, PR
> communicators, field day, and many other useful avenues of ham radio. Quite a
> number have advanced to General and Extra.
>
> The times is a changing -- Bob Dylan
>
> --
> CL -- A 20 wpm Extra since 1979
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:7994e$42ea473b$97d55eb8$24127@ALLTEL.NET...
>> Remember the golden rule!
>>
>> "He who has the gold makes the rules" We old farts have it and the young
>> bucks want it, makes us right no matter what!
>>
>> It is my intention to be a professional curmudgeon until I am looking at the
>> grass from the bottom...
>>
>> "John Smith" <assemblywizard@gmail.com> wrote in message
>> news:mjgGe.348$606.6559862@news.sisna.com...

>>> Fred:
>>>
>>> I disagree. Most of the problems we see in academia is that the mindset
>> has
>>> changed. Older personalities have quite some difficulty in coping with
>> the new
>>> generations, it has always been like that though, just more intense in
>> this age
>>> (but what isn't?)
>>
>>
>
>

3637. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:20:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <PHsGe.47$ih5.1092660@news.sisna.com>
Source record: 72508

Cecil:

I'd just about bet, your first job/corp/supervisor felt just about the same about you (me too for that matter), some of those old guys were great though--they even managed to hide their disgust of our ignorance from us--but they had better training back then!!!
<innocent-look>

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42ea4fdf$1_2@spool9-west.superfeed.net...
> Fred W4JLE wrote:
>> The mantra today is "I want it so give it to me!"
>
> My dog is like that but I love her anyway. And it's typical
> of most animal species. So shouldn't the blame lie instead
> with the governmental bureaucrats who freely dole out the
> welfare packages?
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
>
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3638. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:22:50 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <AJsGe.48$Es5.1148003@news.sisna.com>
Source record: 72509

Caveat:

Only decent tubes (radio valves) which are still made are russian--aren't they?

John

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:IsrGe.22435$HV1.3739@fed1read07...
> Thank you - curiosity satisfied.
> Just curious as how often these are used today
> I do know about colpitts, hartley, pierce, wien, clapp, TGTP, relaxation,
> crystal, negative resistance, dynatron, etc
> Anyone remember the dynatron oscillator? Tetrodes me lads tetrodes.
>
> --
> CL -- I doubt, therefore I ask
>
>
>
>
>
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:6P-dnUfC7r3l0nTfRVn-3w@comcast.com...
>> Caveat Lector wrote:
>>
>>> Just out of curousity -- what modern Ham gear uses a Colpitts oscillator or
>>> a swinging choke ??
>>>
>>> Then why ask these questions on a 2005 Ham test ??
>>>
>>> Maybe ask about a VCO or a crowbar circuit ??
>>
>>
>> All of them!!! The reference oscillator in every phase locked loop is
>> generally a Colpitt's oscillator. I suspect that every oscillator in the
>> VCO circuit is also Colpitt's.
>>
>> By simply asking the question you make the point!!!
>>
>> The required level of knowledge for a license today is significantly poorer
>> than 40 or 50 years ago.
>>
>>
>

>

3639. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:28:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ea5a58$1_1@spool9-west.superfeed.net>
Source record: 72506

John Smith wrote:
> I'd just about bet, your first job/corp/supervisor felt just about the same
> about you (me too for that matter), ...

> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>>So shouldn't the blame lie instead
>>with the governmental bureaucrats who freely dole out the
>>welfare packages?

Please note that I didn't utter a word about private
enterprise. I have never worked for a government.
--
73, Cecil, http://www.qsl.net/w5dxp

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3640. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:37:35 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <43195$42ea5b8f$97d55eb8$3802@ALLTEL.NET>
Source record: 72507

Nice reply that I have no problem with, however the conversation was about current graduates of our institutions of higher learning. Nothing about code/nocode or hams.

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message news:r%rGe.22442$HV1.8489@fed1read07...
> Nope the FCC makes the rules
> You can beat up on the new non-technical hams OR help them
> The choice is yours.
> In our area, we run a weekly 2M Ham Help net
> Our repeater is open to any technical question, no matter how basic.
> Periodic classes are conducted for Tech and General -- success rate is quite
> high.
>
> And many of our no-code Techs are very active in emergency communications,
> PR communicators, field day, and many other useful avenues of ham radio.
> Quite a number have advanced to General and Extra.
>
> The times is a changing -- Bob Dylan
>
> --
> CL -- A 20 wpm Extra since 1979
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:7994e$42ea473b$97d55eb8$24127@ALLTEL.NET...
> > Remember the golden rule!
> >
> > "He who has the gold makes the rules" We old farts have it and the young
> > bucks want it, makes us right no matter what!
> >
> > It is my intention to be a professional curmudgeon until I am looking at
> > the
> > grass from the bottom...
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:mjgGe.348$606.6559862@news.sisna.com...
> >> Fred:
> >>
> >> I disagree. Most of the problems we see in academia is that the mindset
> > has

> >> changed. Older personalities have quite some difficulty in coping with
> > the new
> >> generations, it has always been like that though, just more intense in
> > this age
> >> (but what isn't?)
> >
> >
>
>

3641. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:38:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <qYsGe.52$4C6.1351793@news.sisna.com>
Source record: 72504

Wes:

By "master clock" (or bus clock), I take it the digital osc on my motherboard running at 266Mhz and exists as chip with an in-house part number only, can't really check.

I suspect it to be a UHF-high precision op amp with crystal controlled feedback used as an osc, or a set of digital logic gates with osc established though xtal feedback--either way, a square wave out.

John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message news:e9dke15julrg0dteqgvn0dl163mf1i05ml@4ax.com...
> On Thu, 28 Jul 2005 19:59:49 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Wes:
>>
>>Those osc are a thing of the past...
>
> I beg to differ.
>
>>
>>Bring a junk am broadcast radio near your computer, you will hear literal
>>dozens (well, a bunch anyway!) of osc's freqs going on there, probably not
>>one
>>being generated by a colpitts, hartley or pierce osc circuit...
>>And, with the proper processing, all those waves could be a sine...
>
> In all likelyhood, the master clock oscillator for the microprocessor
> is a Pierce xtal oscillator. All of the other garbage is derived from
> that. There may also be plug-in cards with their own clock, most
> likely another Pierce.
>
> In case you've forgotten, these are -digital- circuits, sine waves
> need not apply.
>
> Why you guys think that the computer guys have invented some new
> -magic- oscillator is beyond me. Wait a minute..... maybe I understand
> after all.

3642. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:47:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <78a91$42ea5dfe$97d55eb8$26931@ALLTEL.NET>
Source record: 72503

But we had one thing lacking today, it is called respect.

You, just yesterday tried to point out to a poster his lack of respect for Roy. Accomplishments are viewed by the youth of today as a thing to distain, as it makes those who have accomplished nothing feel bad.

"Let's play soccer, but no score keeping so no one loses"

"It feels bad to lose, and we don't want to make anyone feel bad"

"Everyone should receive A's so no one can feel superior, making someone feel inferior is not a good thing"

"WE CAN'T PROFILE TERRORISTS AS IT WOULD CREATE NEGATIVE MESSAGES, MAKING THEM FEEL BAD"

"John Smith" <assemblywizard@gmail.com> wrote in message
news:PHsGe.47$ih5.1092660@news.sisna.com...
> Cecil:
>
> I'd just about bet, your first job/corp/supervisor felt just about the
same
> about you (me too for that matter), some of those old guys were great
> though--they even managed to hide their disgust of our ignorance from
us--but
> they had better training back then!!!
> <innocent-look>
>
> John
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42ea4fdf$1_2@spool9-west.superfeed.net...
> > Fred W4JLE wrote:
> >> The mantra today is "I want it so give it to me!"
> >
> > My dog is like that but I love her anyway. And it's typical
> > of most animal species. So shouldn't the blame lie instead
> > with the governmental bureaucrats who freely dole out the
> > welfare packages?
> > --
> > 73, Cecil, http://www.qsl.net/w5dxp
> >
> >
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>

3643. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 16:59:58 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8d2f6$42ea60e5$97d55eb8$18554@ALLTEL.NET>
Source record: 72505

I wonder if the big one hit, how many of the "now" generation would be able
to solve something as simple as square roots sans a calculator.

Technology has replaced learning...

"John Smith" <assemblywizard@gmail.com> wrote in message
news:hwsGe.45$bv5.1195041@news.sisna.com...
> Fred:
>
> YOU HAVE SPIRIT MAN!!!
>
> You have spirit!
> <chuckle>
>
> There is room for us, don't let 'em tell ya different--I am plotting to
hang in
> there too!!!
>
> John

3644. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 17:15:22 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <PutGe.61$y17.1468445@news.sisna.com>
Source record: 72512

Cecil:

Damn man! I am counting on both.

But, can I ask you a question?
After our younger years, how are you so sure it will be heaven?

John

3645. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 17:18:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <FxtGe.63$O27.1492005@news.sisna.com>
Source record: 72511

Fred:

Perish the thought that all those old square root charts should be consumed in
a catastrophe!!!

But, just in case, I have already started whittling a slide rule!

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:8d2f6$42ea60e5$97d55eb8$18554@ALLTEL.NET...
>I wonder if the big one hit, how many of the "now" generation would be able
> to solve something as simple as square roots sans a calculator.
>
> Technology has replaced learning...
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:hwsGe.45$bv5.1195041@news.sisna.com...
>> Fred:
>>
>> YOU HAVE SPIRIT MAN!!!
>>
>> You have spirit!
>> <chuckle>
>>
>> There is room for us, don't let 'em tell ya different--I am plotting to
> hang in
>> there too!!!
>>
>> John
>
>

3646. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 17:34:04 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <oMtGe.64$n87.1557611@news.sisna.com>
Source record: 72510

Fred:

Well, I am a bit embarrassed about that, perhaps I was bit rash...

I should have explained in better words that he obviously did not know Roy's history and past record of accomplishments, or obvious contributions to the field. It is one thing to carry on a difficult argument with unknown personalities here, quite another to attack known ones--that was my point really.

Frankly, that poster was able to annoy me... I am working on becoming a better person, seems it is going to take a lifetime...

Still, that poster is probably a big boy and can withstand my loss of demeanor...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:78a91$42ea5dfe$97d55eb8$26931@ALLTEL.NET...
> But we had one thing lacking today, it is called respect.
>
> You, just yesterday tried to point out to a poster his lack of respect for
> Roy. Accomplishments are viewed by the youth of today as a thing to distain,
> as it makes those who have accomplished nothing feel bad.
>
> "Let's play soccer, but no score keeping so no one loses"
>
> "It feels bad to lose, and we don't want to make anyone feel bad"
>
> "Everyone should receive A's so no one can feel superior, making someone
> feel inferior is not a good thing"
>
> "WE CAN'T PROFILE TERRORISTS AS IT WOULD CREATE NEGATIVE MESSAGES, MAKING
> THEM FEEL BAD"
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:PHsGe.47$ih5.1092660@news.sisna.com...
>> Cecil:
>>
>> I'd just about bet, your first job/corp/supervisor felt just about the
> same
>> about you (me too for that matter), some of those old guys were great
>> though--they even managed to hide their disgust of our ignorance from
> us--but

>> they had better training back then!!!
>> <innocent-look>
>>
>> John
>>
>> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> news:42ea4fdf$1_2@spool9-west.superfeed.net...
>> > Fred W4JLE wrote:
>> >> The mantra today is "I want it so give it to me!"
>> >
>> > My dog is like that but I love her anyway. And it's typical
>> > of most animal species. So shouldn't the blame lie instead
>> > with the governmental bureaucrats who freely dole out the
>> > welfare packages?
>> > --
>> > 73, Cecil, http://www.qsl.net/w5dxp
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>>
>>
>
>

3647. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 18:42:49 UTC
From: richardharrison@webtv.net
Message-ID: <18310-42EA78A9-409@storefull-3256.bay.webtv.net>
Source record: 72513

Tor, N4OGW wrote:
"You CANNOT superimpose POWERS, or even talk about the "power" of
various reflections in the same media."

It is done all the time. P=Esquared / R = Isquared x R.

On page 99 of the 1955 edition of "Electronic and Radio Engineering"
Terman writes:

"The standing-wave ratio S is one means of expressing the magnitude of
the reflectiom coefficient; the exact relation between the two is:

S=1+absolute value of the reflection coefficient / 1-absolute value of
the reflection coefficient

or

absolute value of the reflection coefficient= S-1/S+1

Standing-wave ratio=S=Emax/Emin

This definition of standing-wave ratio is sometimes called voltage
standing-wave ratio (VSWR) to distinguish it from the standing-wave
ratio expressed as a power ratio, which is (Emax/Emin)squared."

Best regards, Richard Harrison, KB5WZI

3648. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 18:52:18 UTC
From: "M. J. Powell" <mike@DeLeTe.pickmere.demon.co.uk>
Message-ID: <XULCeRcirn6CFwx1@pickmere.demon.co.uk>
Source record: 72517

In message <dcdgp7orc1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>, Reg Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>> Reg, was that 30 meters and 90 feet or 60 feet and 20 meters? Just
>for us > mathematically challenged.
>>
>> W4ZCB
>>
>==========
>Harrold,
>
>To be exact, 30 meters = 98.43 feet.
>
>It was NOT a deliberate mistake to check on how much interest would be
>displayed in the experiment by readers. But it could have been. ;o)
>
>I did swap the connections between antenna and counterpoise and, as
>you can guess, it didn't make a scrap of difference.
>
>The underground antenna ended up in a bunch of other radials. But the
>best radial I have is the incoming domestic water main which is
>terminated at its other end by 100,000 miles of underground pipes
>feeding the whole of the Black Country (where it all began) and the
>Great City of Birmingham (which yesterday suffered a tornado due to
>Earth warming climatic changes caused by American pollution of the
>atmosphere).
>
>It was only the day before that life in the city was disrupted by
>police raids on houses alleged to be occupied by unsuccessful suicide
>bombers. Birmingham, in opposition to Manchester, will do anything to
>get into the news!

It has to.

Mike

3649. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:03:04 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <9ZGdnVSjCrEI4HffRVn-1A@comcast.com>
Source record: 72514

John Smith wrote:

> Wes:
>
> Those osc are a thing of the past...
>
> Bring a junk am broadcast radio near your computer, you will hear literal
> dozens (well, a bunch anyway!) of osc's freqs going on there, probably not one
> being generated by a colpitts, hartley or pierce osc circuit...
> And, with the proper processing, all those waves could be a sine...
>
> John

Each of those oscillators use a crystal for frequency and stability!
Each of those oscillators uses positive feedback so that it oscillates.
Draw the equivalent circuit of those oscillators and you will find the
COLPITTS circuit !!!!

I wonder if you are confusing the Coplitts/Hartley topography with the
old VFO which were/are variable tuned [Colpitts/Hartley] oscillators.

Every digital frequency synthesizer uses a Colpitts oscillator as the
reference oscillator, at a fixed frequency, and the variable oscillator
is digitally phase locked to it.

The basic Physics and governing laws for oscillators has not changed.

3650. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:09:04 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <88OdnUO64eNh43ffRVn-qw@comcast.com>
Source record: 72515

I'm closer to 68 than 67.

John Smith wrote:

> Ham op:
>
> I am in my 50's, age is becoming a bit of a problem here, I can extrapolate and
> get some kind of a picture of it being a bit more of a problem for you then--if
> you are older.
>
> Your posts certainly don't reflect such limitations, although we may be "out of
> sync" on some points, you pose good conversation.
>
> Remember, when all is said and done, we must shake hands and have a drink
> together...
>
> John
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:mrSdnZN0zeJniXffRVn-1Q@comcast.com...
>
>>John Smith wrote:
>>
>>
>>>Ham op:
>>>SNIPPED
>>>
>>>I only work on the mikes, low pass/high pass/bandpass filters, linears and
>>>feedlines, antennas, parts which are still big enough to handle...
>>>
>>
>>SNIPPED
>>
>>Well at my age, I only work on stuff I can see. That is limited by aging
>>shakes in my hands. But I can still find a screw driver somewhere, if I can
>>find my glasses.
>>
>>This morning I couldn't get out of bed when I woke up. I couldn't find the
>>floor without my glasses. :-)
>>
>>It's a shame yo get old!
>>
>
>
>

3651. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:10:02 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <88OdnUK64eOr4nffRVn-qw@comcast.com>
Source record: 72516

HEAVEN!!! for goodness sakes!

Cecil Moore wrote:

> John Smith wrote:
>
>> Remember, when all is said and done, we must shake hands and have a
>> drink together...
>
>
> Would that be in heaven or the other place? :-)

3652. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:15:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <88OdnX264eMTHXffRVn-qw@comcast.com>
Source record: 72518

John Smith wrote:

> Caveat:
>
> Only decent tubes (radio valves) which are still made are russian--aren't they?
>
> John
>
>

Oh my God!! Does that mean that my old friend, DeForest, has gone out
of business??

3653. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:31:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dce07k$1l6$1@news.service.uci.edu>
Source record: 72519

Richard Harrison wrote:

> Tor, N4OGW wrote:
> "You CANNOT superimpose POWERS, or even talk about the "power" of
> various reflections in the same media."
>
> It is done all the time. P=Esquared / R = Isquared x R.

> On page 99 of the 1955 edition of "Electronic and Radio Engineering"
> Terman writes:
>
> "The standing-wave ratio S is one means of expressing the magnitude of
> the reflectiom coefficient; the exact relation between the two is:
>
> S=1+absolute value of the reflection coefficient / 1-absolute value of
> the reflection coefficient
>
> or
>
> absolute value of the reflection coefficient= S-1/S+1
>
> Standing-wave ratio=S=Emax/Emin
>
> This definition of standing-wave ratio is sometimes called voltage
> standing-wave ratio (VSWR) to distinguish it from the standing-wave
> ratio expressed as a power ratio, which is (Emax/Emin)squared."

I think he means that it does not occur in nature, and it therefore
shouldn't be done mathematically. That's because power doesn't
propagate, and
I hasten to add - neither do Poynting vectors. Nor does power reflect,
refract, or diffract. Power is a rate at which energy is transferred,
absorbed, or dissipated. It's not a wave which propagates. It's a
mathematical product of two of the characteristics of a wave that
propagates. Numbers on the other hand can indeed be multiplied, divided,
squared, added, and subtracted. We can often even get the right answer
when we do that with power numbers. But that fact can't necessarily be
extrapolated to mean that the given mathematical operation also takes
place in a transmission line. An that is what the author in question
is attempting to have us believe.

73, ac6xg

3654. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:33:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <HwvGe.74$rn7.1602710@news.sisna.com>
Source record: 72425

Ham op:

Just drew the circuit of a xtal in the feedback of a high precision op amp circuit... hmmm, could be colpitts--but can't see the resemblance...

Just drew the circuit of an xtal chucked in the feedback line of a set of logic gates... hmmm, that could be colpitts too, but again, can't see the resemblance...

John

"Ham op" <hamop@comcast.net> wrote in message news:9ZGdnVSjCrEI4HffRVn-1A@comcast.com...
> John Smith wrote:
>
>> Wes:
>>
>> Those osc are a thing of the past...
>>
>> Bring a junk am broadcast radio near your computer, you will hear literal
>> dozens (well, a bunch anyway!) of osc's freqs going on there, probably not
>> one being generated by a colpitts, hartley or pierce osc circuit...
>> And, with the proper processing, all those waves could be a sine...
>>
>> John
>
> Each of those oscillators use a crystal for frequency and stability!
> Each of those oscillators uses positive feedback so that it oscillates.
> Draw the equivalent circuit of those oscillators and you will find the
> COLPITTS circuit !!!!
>
> I wonder if you are confusing the Coplitts/Hartley topography with the old
> VFO which were/are variable tuned [Colpitts/Hartley] oscillators.
>
> Every digital frequency synthesizer uses a Colpitts oscillator as the
> reference oscillator, at a fixed frequency, and the variable oscillator is
> digitally phase locked to it.
>
> The basic Physics and governing laws for oscillators has not changed.
>
>

3655. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 19:51:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11el26tijlkv7e9@corp.supernews.com>
Source record: 72520

I've used an antenna made of buried radial wires for many years, with a vertical counterpoise, and AM broadcasters have been using this technique for the better part of a century. Works fine. Hm, maybe I should add another column to the wire specification table in EZNEC so people can specify whether the wire is an (A)ntenna or (C)ounterpoise. . .

A related antenna was described many years ago in one of the amateur magazines. The author explained that when we construct a vertical antenna, an image antenna appears in the ground. So he simply dug a hole in the ground in put his vertical below ground. The image antenna did the radiating, of course. I did a pretty thorough search of QST and couldn't find the article -- I'd be indebted to anyone who can recall where this appeared. My guess is that it was around the early '60s. In an April issue of course.

Roy Lewallen, W7EL

Reg Edwards wrote:
> Some years back I buried a 30 metre (60-feet) auminium wire one spade
> depth in my back garden. Wire was 1.5 mm in diameter. Soil
> resistivity about 100 ohm-metres. To scientists that's 10
> milli-Siemens. The near end of the wire came up in the shack. That's
> under my kitchen sink. It's still there. Open-circuit at the far end.
>
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet. I chose this length because it fitted
> nicely into my back garden. The front garden is too short even for an
> underground antenna.
>
> On the 160m band I fed into it about 30 watts from a home-brew
> transceiver so I can't provide for the record a manufacturer's type
> and serial number. However I still have the transceiver which can be
> inspected.
>
> Despite a high local noise level of S-6 I was able to communicate up
> to 60 miles with mobile stations in broad daylight on SSB. After
> sunset I could easily communicate with most of Europe on CW.
>
> I think a record of these buried antenna experiments should be kept
> for posterity, alongside the famous biblical work of B,L & E.
>
> By the way, as you see, I did remember to measure soil resistivity. It
> was the first thing I did. What buried wire do you think I used to
> measure it?

> ----
> Reg, G4FGQ
>
>

3656. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 20:08:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11el36bd8foq6e2@corp.supernews.com>
Source record: 72521

Richard Harrison wrote:
> . . .
> Standing-wave ratio=S=Emax/Emin
>
> This definition of standing-wave ratio is sometimes called voltage
> standing-wave ratio (VSWR) to distinguish it from the standing-wave
> ratio expressed as a power ratio, which is (Emax/Emin)squared."

Now, that's an interesting concept.

The VSWR is the ratio of the maximum voltage anywhere along the line to the minimum voltage anywhere along the line (presuming the line is sufficiently long for a full maximum and minimum to occur). We can use a voltage probe to actually measure this voltage in a slotted line.

If the voltage is sinusoidal, so is the power, just at twice the frequency. (I'm sure you can find that in Terman somewhere, but it's simple to derive with a little trigonometry.) Since you say that power superposes, we should expect power waves to add and cancel just like voltage waves. And this should result in dips and peaks in the power as we move along the line, just like voltage, right? I'd expect the dips and peaks to be twice as closely spaced, however, because the wavelength of the power waves would be half the wavelength of the voltage waves.

So is the ratio of the maximum to minimum power along the line due to this superposition of power waves equal to the PSWR?

Roy Lewallen, W7EL

3657. Re: Do You Want To Know For Sure That You Are Going To Heaven? The reason some people don't know for sure if they are going to Heaven when they die is because they just don't know. The good news is that you can know for sure that you are going to Heaven wh

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 20:34:35 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ypwGe.88$iP.2134143@news.sisna.com>
Source record: 72524

kwacka:

well, stick to the newsgroups, you don't need a faster connection here <grin>

John

"kwacka" <kwacka2@clara.co.uk> wrote in message
news:lf7le15h24logdql57q3s61133ascp8qgi@4ax.com...
> On Tue, 19 Apr 2005 20:06:53 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Tons of bandwidth? My son grabs a movie in under a minute (650megs -to- 1.2
>>gigs of data.) I don't think anyone even sweats that bandwidth... in
>>comparison, this text on usenet is nothing!!!
>>
> And I'm looking forward to the day when I can get any kind of
> connection better than this dial-up.

3658. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 20:36:46 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ml4le19taeh8oaut3hfo2gpcrhb5gd5oa5@4ax.com>
Source record: 72523

I agree that it was an April issue and I think my old friend W8DMR (Bill) may have written it. However, I was thinking it more in the mid 60's.

de W8CCW

On Fri, 29 Jul 2005 12:51:56 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>I've used an antenna made of buried radial wires for many years, with a
>vertical counterpoise, and AM broadcasters have been using this
>technique for the better part of a century. Works fine. Hm, maybe I
>should add another column to the wire specification table in EZNEC so
>people can specify whether the wire is an (A)ntenna or (C)ounterpoise. . .
>
>A related antenna was described many years ago in one of the amateur
>magazines. The author explained that when we construct a vertical
>antenna, an image antenna appears in the ground. So he simply dug a hole
>in the ground in put his vertical below ground. The image antenna did
>the radiating, of course. I did a pretty thorough search of QST and
>couldn't find the article -- I'd be indebted to anyone who can recall
>where this appeared. My guess is that it was around the early '60s. In
>an April issue of course.
>
>Roy Lewallen, W7EL
>
>
>Reg Edwards wrote:
>> Some years back I buried a 30 metre (60-feet) auminium wire one spade
>> depth in my back garden. Wire was 1.5 mm in diameter. Soil
>> resistivity about 100 ohm-metres. To scientists that's 10
>> milli-Siemens. The near end of the wire came up in the shack. That's
>> under my kitchen sink. It's still there. Open-circuit at the far end.
>>
>> As a counterpoise, something essential to tune it against, I erected a
>> wire in the form of an inverted-L. This was about 30 feet high and
>> overall length about 140 feet. I chose this length because it fitted
>> nicely into my back garden. The front garden is too short even for an
>> underground antenna.
>>
>> On the 160m band I fed into it about 30 watts from a home-brew
>> transceiver so I can't provide for the record a manufacturer's type
>> and serial number. However I still have the transceiver which can be
>> inspected.
>>

>> Despite a high local noise level of S-6 I was able to communicate up
>> to 60 miles with mobile stations in broad daylight on SSB. After
>> sunset I could easily communicate with most of Europe on CW.
>>
>> I think a record of these buried antenna experiments should be kept
>> for posterity, alongside the famous biblical work of B,L & E.
>>
>> By the way, as you see, I did remember to measure soil resistivity. It
>> was the first thing I did. What buried wire do you think I used to
>> measure it?
>> ----
>> Reg, G4FGQ
>>
>>

3659. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 20:41:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <945le1l5286t8gbvltf2p3sqkla99ecjeh@4ax.com>
Source record: 72426

On Fri, 29 Jul 2005 13:42:49 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Tor, N4OGW wrote:
>"You CANNOT superimpose POWERS, or even talk about the "power" of
>various reflections in the same media."

Hi Richard,

Given the original subject line has been munged up, it is difficult to know if you were responding to Tor directly, or through another posting. Either way, it would be instructive to complete his quote, as follows:

>>However, your understanding of superposition is wrong. You
>>CANNOT superimpose POWERS, or even talk about the "power" of various
>>reflections in the same media. You can only add the wave amplitudes
>>(electric fields). THEN you take the total amplitude and square that
>>to get the power.

which seems to "square" with where you take this:

>It is done all the time. P=Esquared / R = Isquared x R.

Of course the topic has drifted into this problem of superposition which has been approached before along similar lines. The truth of the matter in the thin film discussion is that it doesn't require a complete solution of either electric fields or power to realize that "total cancellation" of the waves described in the example is impossible.

It is quite evident that through the actions of the first interface, that there is less energy incident upon the second interface. Further, given that both interfaces operate with identical reflective and transmissive properties, it follows the second interface could not reflect enough to totally negate the reflections of the first.

Torr had a question in this regard, but as he is a casual correspondent we have not seen any further comment from him - nor would I expect him to have amplified on your observation above.

73's
Richard Clark, KB7QHC

3660. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 20:48:57 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <2DwGe.90$Va1.2301981@news.sisna.com>
Source record: 72427

Reg:

I can't even dream of burying a perfectly good, working, beautiful, sleek antenna!

... I shall refrain from burying any antenna, before its' time ...

John

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dcbipg$c94$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> Some years back I buried a 30 metre (60-feet) auminium wire one spade
> depth in my back garden. Wire was 1.5 mm in diameter. Soil
> resistivity about 100 ohm-metres. To scientists that's 10
> milli-Siemens. The near end of the wire came up in the shack. That's
> under my kitchen sink. It's still there. Open-circuit at the far end.
>
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet. I chose this length because it fitted
> nicely into my back garden. The front garden is too short even for an
> underground antenna.
>
> On the 160m band I fed into it about 30 watts from a home-brew
> transceiver so I can't provide for the record a manufacturer's type
> and serial number. However I still have the transceiver which can be
> inspected.
>
> Despite a high local noise level of S-6 I was able to communicate up
> to 60 miles with mobile stations in broad daylight on SSB. After
> sunset I could easily communicate with most of Europe on CW.
>
> I think a record of these buried antenna experiments should be kept
> for posterity, alongside the famous biblical work of B,L & E.
>
> By the way, as you see, I did remember to measure soil resistivity. It
> was the first thing I did. What buried wire do you think I used to
> measure it?
> ----
> Reg, G4FGQ
>
>

3661. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:12:50 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f5e$1_1@x-privat.org>
Source record: 72431
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

You've got the measure of FRANCES TURNIP-SMELLY!

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:tas8e1ln51g32rmdc41402c2jrnu2gg77e@4ax.com...
> On Mon, 25 Jul 2005 00:35:22 GMT, Frank Turner-Smith G3VKI
> <g3vki@turner-smith.co.uk> Gave us:
>
>>Usenet?
>>on
>>it
> You act as if you haven't been in Usenet more than two months, and
> then act as if you are a twelve year old adolescent twit when you
> decide that long accepted standards no longer apply, or do not apply
> to you. Get a clue, dumbass.

3662. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:13:59 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f5f_1@x-privat.org>
Source record: 72432
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

sdrawkcab is backwards spelt backwards!

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:pprbe1hfahest76lou72eniomui9i4j6do@4ax.com...
> On Mon, 25 Jul 2005 04:59:26 GMT, NunYa Bidness
> <nunyabidness@nunyabidness.org> wrote:
>> Placing your answer in front of the text you are replying to IS
>>backwards, ass.
> Not only is it backwards ... it is also backward!

3663. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:16:19 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f5f$2_1@x-privat.org>
Source record: 72430
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Hey, what a good idea!

"Richard Fry" <rfry@adams.net> wrote in message
news:42e6b3b8_3@newsfeed.slurp.net...
>I will post this at both the bottom and top, trying to please everybody at
>once.

> I will post this at both the bottom and top, trying to please everybody at
> once.

Hey, what a good idea!

3664. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:18:22 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f60_1@x-privat.org>
Source record: 72429
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

In view of the Childish Broadcast (CB) quoted below,
would it be fair to assume that "NunYa Bidness" is some
kind of infantile CBer handle?

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:2458e1hvamc297pubh042p4fm966hl1gk0@4ax.com...
.
>
> If you are skipping posts in threads which you were at one time
> reading, you have some serious skills problems that go far beyond your
> simplistic laziness to use more than one clic per post. You have the
> mentality of a high school drop-out.

3665. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:19:12 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f60$2_1@x-privat.org>
Source record: 72433
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Right on!

"Ham op" <hamop@comcast.net> wrote in message
news:oMmdnVRXC80PsXnfRVn-1g@comcast.com...
> You haven't given one logical reason to bottom post.
>
> You revert to name calling, insults, IQ assassination, challenging my IQ,
> while clearly demonstrating your IQ. Give a positive benefit of bottom
> posting, other than that's the way it's done, specially when a post may be
> very long, several pages or more, that requires scrolling through to
> locate your asinine answer. I could read your answer immediately and
> simply ignore it, if it were TOP POSTED.
>
> NunYa Bidness wrote:
>
>> On Sun, 24 Jul 2005 10:41:09 -0700, "John Smith"
>> <assemblywizard@gmail.com> Gave us:
>>
>>
>>>Some people have been sold the line that there is something leet about
>>>bottom posting--obviously they haven't a clue... but even think they fool
>>>others!
>>
>>
>> Your an utter idiot.
>

3666. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:20:21 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f61_1@x-privat.org>
Source record: 72434
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

What a well-reasoned argument in favour of top-posting!

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:hvr8e19tes4dklthqq0aeep81f32puitvm@4ax.com...
> You do not understand what Usenet is then. It isn't a message board
> between two folks having a conversation, it IS a place where such
> conversations can benefit any and all that read them. The entire
> point of proper posting is so that ANY person popping into the group
> for a read, can garner the entire idea of a post *without* having to
> go find, download, and plow through a number of others to do it.

3667. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:21:46 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42ea9f61$2_1@x-privat.org>
Source record: 72435
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

So that they will decrease with increasing time?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dc2730$87j$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
>> But how are they going to solve the Rio "street-kids" problem then?
>>
> Bring them over here and employ them as arithmetic teachers.
>
>

3668. Re: Do You Want To Know For Sure That You Are Going To Heaven? The reason some people don't know for sure if they are going to Heaven when they die is because they just don't know. The good news is that you can know for sure that you are going to Heaven wh

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:22:42 UTC
From: kwacka <kwacka2@clara.co.uk>
Message-ID: <lf7le15h24logdql57q3s61133ascp8qgi@4ax.com>
Source record: 72522

On Tue, 19 Apr 2005 20:06:53 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Tons of bandwidth? My son grabs a movie in under a minute (650megs -to- 1.2
>gigs of data.) I don't think anyone even sweats that bandwidth... in
>comparison, this text on usenet is nothing!!!
>
And I'm looking forward to the day when I can get any kind of
connection better than this dial-up.

3669. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:26:40 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <zPadnU0cCN3fAnffRVn-3w@comcast.com>
Source record: 72428

Your loop is sensitive to magnetic fields, such as might be produced by the horizontal deflection system of a Television set or computer monitor, or by a switching supply in a computer. The best way to minimize that problem is to orient the loop to null out the interference. An additional way is to move the loop as far away from likely sources of interference as possible. Power the antenna and R75 from a car battery or portable DC source and take them outside and roam around to see if you can find out where the noise is coming from.

73, Chuck W6PKP

"Mark Veldhuis" <me@privacy.net> wrote in message
news:dcc50npud1@news5.zwoll1.ov.home.nl...
> Hi,
>
> In article <4avhe1duludfoedb8nu7g480man5miej6v@4ax.com>,
> kb7qhc@comcast.net says...
>
> > Sounds like a ground loop. If you are using the Antenna Interface,
> > make all connections that give you this interference. Now, disconnect
> > the power lead to the Antenna Interface. If the noise goes away, you
> > have a ground loop that is associated with where your power to this
> > unit comes from, and what you are using as the ground for your
> > IC-R75.
>
> I remember trying that before, and it did stop the noise indeed.
> But... If it's a ground loop, wouldn't it be there all the time?
> I'm asking because I came home tonight, connected the antenna, and...now
> noise, no buzz! That too happened before, but the noise was back less
> than half a day later. :(
> So, could this still be a ground loop? And if so, how do I go about
> getting rid of it? Is it an easy thing to do for someone non-technical
> like me?
>
> I am not using any ground for my R75 at the moment. With my previous
> antenna setup, a longwire with MLB, I had a ground rod. And it did
> absolutely nothing, it didn't make any difference at all...
>
> Thanks for the help!
> --
>
>
> 73',
>
>

> Mark Veldhuis.

3670. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 21:51:47 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <TxxGe.22125$Ag3.3717@newsfe4-gui.ntli.net>
Source record: 72437
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Polymath wrote:
> You've got the measure of FRANCES TURNIP-SMELLY!
>
At least I can use a measure rather than a micrometer.
...(_!_)...

3671. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:00:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <fGxGe.104$qe1.2383990@news.sisna.com>
Source record: 72447

Mark:

I have NEVER owned such a loop, and frankly, can't comment on its exact workings.

However, the others seem to be suggesting, switch radio and loop to battery power. Is the noise gone? If so, you have localized your problem. If not...

Shut off everything in the home (building, business, etc), is the noise gone?

If so, turn on things one at a time and locate the interference.

Frankly, I suspect I am wasting my text here, and you have already done this...

John

"Mark Veldhuis" <me@privacy.net> wrote in message news:dcar9t$259$1@news5.zwoll1.ov.home.nl...
> Hello,
>
> I got my Icom IC-R75 rx. connected to a Wellbrook ALA1530 loop antenna.
> On this antenna, I have an enormous amount of 'buzzz' on much MW and SW
> frequencies. It is much less noticeable on a portable receiver with a
> whip antenna.
> When I have just the center pin of the PL259 plug connected to the
> receiver, much of the buzz disappears. As soon as I connect the other
> part of the plug too (the shield of the coax, so to say), it becomes
> audible again.
> I am not very techinal, and don't know where to start troubleshooting.
> Should I look for damage on the coax cable? Could it be badly
> soldered/connected BNC plugs? Anything else that's worth investigating?
>
> Many thanks for any tips!
> --
>
>
> 73',
>
>
> Mark Veldhuis.

3672. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:01:11 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <mFxGe.18961$h.11553@bignews6.bellsouth.net>
Source record: 72438

My brother quit the power company when they were switching to "underground utilities" - he got tired of burying those telephone poles so deep! And I had to give up chicken farming because the county extension agent said I was planting them too deep - I think I must have been planting them too near the underground power lines.

"John Smith" <assemblywizard@gmail.com> wrote in message news:2DwGe.90$Va1.2301981@news.sisna.com...
> Reg:
>
> I can't even dream of burying a perfectly good, working, beautiful, sleek
> antenna!
>
> ... I shall refrain from burying any antenna, before its' time ...
>
> John

3673. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:03:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <YIxGe.107$Di1.2449449@news.sisna.com>
Source record: 72448
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank:

Pull up your pants!

John

"Frank Turner-Smith G3VKI" <g3vki@turner-smith.co.uk> wrote in message
news:TxxGe.22125$Ag3.3717@newsfe4-gui.ntli.net...
> Polymath wrote:
>> You've got the measure of FRANCES TURNIP-SMELLY!
>>
> At least I can use a measure rather than a micrometer.
> ...(_!_)...

3674. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:05:42 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <BJxGe.18974$h.2162@bignews6.bellsouth.net>
Source record: 72439

Sometimes it works if you unplug it, turn the plug 180 degrees, and plug it back in.
ground loops get hairy sometimes.

3675. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:07:11 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <42EAA897.3EFE1507@shaw.ca>
Source record: 72440

jgboyles@aol.com wrote:
>
> Reg Edwards wrote:
> > Some years back I buried a 30 metre (60-feet) auminium wire...
>
> Hi Reg, Interesting, but isn't a 30 metre wire more like 100 feet
> instead of 60 feet? ...

Perhaps Reg took into account a velocity factor for sub-ground aluminum wire?

Irv VE6BP :-)

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3676. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:09:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <jOxGe.110$Um1.2500744@news.sisna.com>
Source record: 72446

Hal:

:| <- confused, stiff upper lip

I'll recover by the time of your next post. <grin>

John

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:mFxGe.18961$h.11553@bignews6.bellsouth.net...
> My brother quit the power company when they were switching to "underground
> utilities" - he got tired of burying those telephone poles so deep! And I
> had to give up chicken farming because the county extension agent said I was
> planting them too deep - I think I must have been planting them too near the
> underground power lines.
>
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:2DwGe.90$Va1.2301981@news.sisna.com...
>> Reg:
>>
>> I can't even dream of burying a perfectly good, working, beautiful, sleek
>> antenna!
>>
>> ... I shall refrain from burying any antenna, before its' time ...
>>
>> John
>
>

3677. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:18:01 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <gnale1polrnf71grg0210lr6oprbhfalh8@4ax.com>
Source record: 72441
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Thu, 28 Jul 2005 19:28:13 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>NunYa:
>
>Do you even know about that man you just insulted?

It doesn't matter, you non-conformal twit!
>
>I grew up reading articles of his in publications.

Good for you.

> You picked the wrong
>personality there... you just DO NOT realize EXACTLY how much you have
>telegraphed your stupidity--but trust me, you could NOT have done it better...

Bullshit. The words I wrote are spot on.

>You would be hard pressed to ever prove yourself his equal...

I am not trying to. What I am trying to do is to get you idiots to
realize that putting your bullshit above what you are replying to is
about as retarded as it gets, dumbass.

3678. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:19:02 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <0tale11686e35a9ndbcjsq6ijle9cbt7d7@4ax.com>
Source record: 72442
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 29 Jul 2005 22:12:50 +0100, "Polymath"
<invalid@invalid.invalid> Gave us:

>You've got the measure of FRANCES TURNIP-SMELLY!
>

You're an idiot.

3679. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:19:24 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <ftale11pg8l2douk7c3rfcm4vk0oob1lsq@4ax.com>
Source record: 72443
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 29 Jul 2005 22:13:59 +0100, "Polymath"
<invalid@invalid.invalid> Gave us:

>sdrawkcab is backwards spelt backwards!

A complete idiot, you are.

3680. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:26:45 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1cb$42eaad49$97d55eb8$5804@ALLTEL.NET>
Source record: 72444
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Retarded is posting profanities. It indicates a lack of vocabulary, and
speaks volumes as to your character.

"NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
news:gnale1polrnf71grg0210lr6oprbhfalh8@4ax.com...
> On Thu, 28 Jul 2005 19:28:13 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
> >NunYa:
> >
> >Do you even know about that man you just insulted?
>
> It doesn't matter, you non-conformal twit!
> >
> >I grew up reading articles of his in publications.
>
> Good for you.
>
> > You picked the wrong
> >personality there... you just DO NOT realize EXACTLY how much you have
> >telegraphed your stupidity--but trust me, you could NOT have done it
better...
>
> Bullshit. The words I wrote are spot on.
>
> >You would be hard pressed to ever prove yourself his equal...
>
> I am not trying to. What I am trying to do is to get you idiots to
> realize that putting your bullshit above what you are replying to is
> about as retarded as it gets, dumbass.

3681. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:30:27 UTC
From: jgboyles@aol.com
Message-ID: <1122676227.835389.231810@f14g2000cwb.googlegroups.com>
Source record: 72445

the
> Great City of Birmingham (which yesterday suffered a tornado due to
> Earth warming climatic changes caused by American pollution of the
> atmosphere).
>

Birmingham, in opposition to Manchester, will do anything to
> get into the news!
> ----
> Reg.

Hi Reg, I live in the Great City of Birmingham, and there was no tornado yesterday due to Earth warming climatic changes caused by American pollution of the atmosphere. We do have tornados here from time to time and have even before the American pollution of the atmosphere.
Of course I live in B'ham Alabama USA so I am closer to the pollution than you are. The company I work for has spent billions on environmental projects as has a number of other companies. It is starting to make a big difference in the air quality over here. I doubt seriously the B'ham tornado was anything out of the ordinary (1 every 100 years).
If you want to see who is really cranking out the pollution, look at third world countries who are attempting to progress, which takes energy that they can not afford, much less any pollution control. China comes to mind.
Gary N4AST

3682. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:31:07 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <R6yGe.121$Yq1.2542708@news.sisna.com>
Source record: 72449
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Fred:

Your logic is impeccable, but wasted on the likes of that poster...

Hip, hip, cheerio old bean, we move forward...

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:1cb$42eaad49$97d55eb8$5804@ALLTEL.NET...
> Retarded is posting profanities. It indicates a lack of vocabulary, and
> speaks volumes as to your character.
>
> "NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
> news:gnale1polrnf71grg0210lr6oprbhfalh8@4ax.com...
>> On Thu, 28 Jul 2005 19:28:13 -0700, "John Smith"
>> <assemblywizard@gmail.com> Gave us:
>>
>> >NunYa:
>> >
>> >Do you even know about that man you just insulted?
>>
>> It doesn't matter, you non-conformal twit!
>> >
>> >I grew up reading articles of his in publications.
>>
>> Good for you.
>>
>> > You picked the wrong
>> >personality there... you just DO NOT realize EXACTLY how much you have
>> >telegraphed your stupidity--but trust me, you could NOT have done it
> better...
>>
>> Bullshit. The words I wrote are spot on.
>>
>> >You would be hard pressed to ever prove yourself his equal...
>>
>> I am not trying to. What I am trying to do is to get you idiots to
>> realize that putting your bullshit above what you are replying to is
>> about as retarded as it gets, dumbass.
>
>

3683. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 22:57:29 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e9b56$42eab482$97d55eb8$29100@ALLTEL.NET>
Source record: 72450
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Only designed to spin him up. His only response will be a string of invectives. As he won't see this until he responds to mine, he will now be aware as to how easily he is manipulated.

Bet right now he is doing his best to cancel his previous post...

"John Smith" <assemblywizard@gmail.com> wrote in message
news:R6yGe.121$Yq1.2542708@news.sisna.com...
> Fred:
>
> Your logic is impeccable, but wasted on the likes of that poster...
>
> Hip, hip, cheerio old bean, we move forward...
>
> John
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:1cb$42eaad49$97d55eb8$5804@ALLTEL.NET...
> > Retarded is posting profanities. It indicates a lack of vocabulary, and
> > speaks volumes as to your character.
> >
> > "NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
> > news:gnale1polrnf71grg0210lr6oprbhfalh8@4ax.com...
> >> On Thu, 28 Jul 2005 19:28:13 -0700, "John Smith"
> >> <assemblywizard@gmail.com> Gave us:
> >>
> >> >NunYa:
> >> >
> >> >Do you even know about that man you just insulted?
> >>
> >> It doesn't matter, you non-conformal twit!
> >> >
> >> >I grew up reading articles of his in publications.
> >>
> >> Good for you.
> >>
> >> > You picked the wrong
> >> >personality there... you just DO NOT realize EXACTLY how much you have
> >> >telegraphed your stupidity--but trust me, you could NOT have done it
> > better...
> >>
> >> Bullshit. The words I wrote are spot on.
> >>
> >> >You would be hard pressed to ever prove yourself his equal...

> >>
> >> I am not trying to. What I am trying to do is to get you idiots to
> >> realize that putting your bullshit above what you are replying to is
> >> about as retarded as it gets, dumbass.
> >
> >
>
>

3684. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:10:38 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <VHyGe.134$9D2.2659487@news.sisna.com>
Source record: 72451
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

```
Fred:

You are an evil man, an evil man...
<satisfied-smirk-and-a-wink>

John

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:e9b56$42eab482$97d55eb8$29100@ALLTEL.NET...
> Only designed to spin him up. His only response will be a string of
> invectives. As he won't see this until he responds to mine, he will now be
> aware as to how easily he is manipulated.
>
> Bet right now he is doing his best to cancel his previous post...
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:R6yGe.121$Yq1.2542708@news.sisna.com...
>> Fred:
>>
>> Your logic is impeccable, but wasted on the likes of that poster...
>>
>> Hip, hip, cheerio old bean, we move forward...
>>
>> John
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:1cb$42eaad49$97d55eb8$5804@ALLTEL.NET...
>> > Retarded is posting profanities. It indicates a lack of vocabulary, and
>> > speaks volumes as to your character.
>> >
>> > "NunYa Bidness" <nunyabidness@nunyabidness.org> wrote in message
>> > news:gnale1polrnf71grg0210lr6oprbhfalh8@4ax.com...
>> >> On Thu, 28 Jul 2005 19:28:13 -0700, "John Smith"
>> >> <assemblywizard@gmail.com> Gave us:
>> >>
>> >> >NunYa:
>> >> >
>> >> >Do you even know about that man you just insulted?
>> >>
>> >> It doesn't matter, you non-conformal twit!
>> >> >
>> >> >I grew up reading articles of his in publications.
>> >>
>> >> Good for you.
```

>> >>
>> >> > You picked the wrong
>> >> >personality there... you just DO NOT realize EXACTLY how much you have
>> >> >telegraphed your stupidity--but trust me, you could NOT have done it
>> > better...
>> >>
>> >> Bullshit. The words I wrote are spot on.
>> >>
>> >> >You would be hard pressed to ever prove yourself his equal...
>> >>
>> >> I am not trying to. What I am trying to do is to get you idiots to
>> >> realize that putting your bullshit above what you are replying to is
>> >> about as retarded as it gets, dumbass.
>> >
>> >
>>
>>
>
>

3685. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:17:23 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <j2ele19c9pj4q90m79givgf70qa8tvhkt7@4ax.com>
Source record: 72452
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Frank Turner-Smith G3VKI wrote:

>Polymouth wrote:
>
>> You've got the measure of FRANCES TURNIP-SMELLY!
>>
>At least I can use a measure rather than a micrometer.
>...(_!_)...

Truly it can be said that of this week's outbursts
'Les sanglots longs Des violons Du Grand Poseur
Blessent mon coeur D'une langueur Monotone'

from
Aero Spike

3686. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:31:44 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <E%yGe.139$zk1.2471056@news.sisna.com>
Source record: 72453
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Spike:

Knock that off, only girly-men defile their mouths with the french language.

Don't think word of this isn't going to reach arnold...

John

"Spike" <Aero.Spike@Technologies.invalid> wrote in message
news:j2ele19c9pj4q90m79givgf70qa8tvhkt7@4ax.com...
> Frank Turner-Smith G3VKI wrote:
>
>>Polymouth wrote:
>>
>>> You've got the measure of FRANCES TURNIP-SMELLY!
>>>
>>At least I can use a measure rather than a micrometer.
>>...(_!_)...
>
> Truly it can be said that of this week's outbursts
> 'Les sanglots longs Des violons Du Grand Poseur
> Blessent mon coeur D'une langueur Monotone'
>
> from
> Aero Spike

3687. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:39:45 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6011e$42eabe74$97d55eb8$10677@ALLTEL.NET>
Source record: 72455
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Sounds like some kind of Emile Zola nonsense...

"John Smith" <assemblywizard@gmail.com> wrote in message
news:E%yGe.139$zk1.2471056@news.sisna.com...
> Spike:
>
> Knock that off, only girly-men defile their mouths with the french
language.
>
> Don't think word of this isn't going to reach arnold...
>
> John
>
> "Spike" <Aero.Spike@Technologies.invalid> wrote in message
> news:j2ele19c9pj4q90m79givgf70qa8tvhkt7@4ax.com...
> > Frank Turner-Smith G3VKI wrote:
> >
> >>Polymouth wrote:
> >>
> >>> You've got the measure of FRANCES TURNIP-SMELLY!
> >>>
> >>At least I can use a measure rather than a micrometer.
> >>...(_!_)...
> >
> > Truly it can be said that of this week's outbursts
> > 'Les sanglots longs Des violons Du Grand Poseur
> > Blessent mon coeur D'une langueur Monotone'
> >
> > from
> > Aero Spike
>
>

3688. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:40:46 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <7qdle19oqbkdc6d3q0uf9v11n468o638od@4ax.com>
Source record: 72454

On Fri, 29 Jul 2005 12:33:53 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Ham op:
>
>Just drew the circuit of a xtal in the feedback of a high precision op amp
>circuit... hmmm, could be colpitts--but can't see the resemblance...
>
>Just drew the circuit of an xtal chucked in the feedback line of a set of logic
>gates... hmmm, that could be colpitts too, but again, can't see the
>resemblance...

Draw a transistor (FET, or triode) with a capacitor from collector
(drain, plate) to emitter (source, cathode), an inductor from
collector to base (gate, grid), and a capacitor from base to emitter.

Ground the emitter and everything connected to it and take the output
from the collector. You have a Pierce. Replace the inductor with a
crystal and you have a Pierce oscillator with the crystal operating in
the anti-resonant mode.

Ground the collector and everything connected to it and take the
output from the emitter. You have a Colpitts. Replace the inductor
with a crystal and you have a Colpitts oscillator with the crystal
operating in the anti-resonant mode.

Insert a crystal between the emitter and the two capacitors connected
to it and take the output from the emitter and you have a crystal
oscillator operating at series (or overtone) resonance.

Stick a varactor in there someplace and you have a VCO or VCXO.

Clapp, Vacker, Franklin, Butler.... they are all just variations on an
old theme.

3689. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:47:39 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <DezGe.147$dS2.2779210@news.sisna.com>
Source record: 72456

Wes:

Of course there are millions, if not billions of 'em in my computer, encased in the chips there, but having viewed many, many spec sheets and diagrams of the internal geometry of the chips, can't say I would really bet there is a colpitts commanding the freq of the bus in my computer, nor the daughter boards in their...

Now you might be right, it is just an argument I must defer from, since reliable data one way or another cannot be obtained without expending more effort than I am prepared to expend... I'll even grant you a win by default--the argument simply is not deserving of my time, and anyone with access to the internet can look at a diagram depicting components used in the clocks of "modern circuits."

John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:7qdle19oqbkdc6d3q0uf9v11n468o638od@4ax.com...
> On Fri, 29 Jul 2005 12:33:53 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Ham op:
>>
>>Just drew the circuit of a xtal in the feedback of a high precision op amp
>>circuit... hmmm, could be colpitts--but can't see the resemblance...
>>
>>Just drew the circuit of an xtal chucked in the feedback line of a set of
>>logic
>>gates... hmmm, that could be colpitts too, but again, can't see the
>>resemblance...
>
> Draw a transistor (FET, or triode) with a capacitor from collector
> (drain, plate) to emitter (source, cathode), an inductor from
> collector to base (gate, grid), and a capacitor from base to emitter.
>
> Ground the emitter and everything connected to it and take the output
> from the collector. You have a Pierce. Replace the inductor with a
> crystal and you have a Pierce oscillator with the crystal operating in
> the anti-resonant mode.
>
> Ground the collector and everything connected to it and take the
> output from the emitter. You have a Colpitts. Replace the inductor
> with a crystal and you have a Colpitts oscillator with the crystal
> operating in the anti-resonant mode.

>
> Insert a crystal between the emitter and the two capacitors connected
> to it and take the output from the emitter and you have a crystal
> oscillator operating at series (or overtone) resonance.
>
> Stick a varactor in there someplace and you have a VCO or VCXO.
>
> Clapp, Vacker, Franklin, Butler.... they are all just variations on an
> old theme.
>
>

3690. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:47:49 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11el91mco1a7u6c@corp.supernews.com>
Source record: 72436

This has been done since the beginning of radio. Nothing new. However, I am interested in the sand antenna. I would love to hear more about working antennas that exist entirely below ground. I am guessing but would say this would not work on any band above 160 meters. I know the Navy has made huge underground radiators at frequencies like 50 khz. I would be surprised to hear that something as high as 1.8 mhz could be made to work.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dcbipg$c94$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> Some years back I buried a 30 metre (60-feet) auminium wire one spade
> depth in my back garden. Wire was 1.5 mm in diameter. Soil
> resistivity about 100 ohm-metres. To scientists that's 10
> milli-Siemens. The near end of the wire came up in the shack. That's
> under my kitchen sink. It's still there. Open-circuit at the far end.
>
> As a counterpoise, something essential to tune it against, I erected a
> wire in the form of an inverted-L. This was about 30 feet high and
> overall length about 140 feet. I chose this length because it fitted
> nicely into my back garden. The front garden is too short even for an
> underground antenna.
>
> On the 160m band I fed into it about 30 watts from a home-brew
> transceiver so I can't provide for the record a manufacturer's type
> and serial number. However I still have the transceiver which can be
> inspected.
>
> Despite a high local noise level of S-6 I was able to communicate up
> to 60 miles with mobile stations in broad daylight on SSB. After
> sunset I could easily communicate with most of Europe on CW.
>
> I think a record of these buried antenna experiments should be kept
> for posterity, alongside the famous biblical work of B,L & E.
>
> By the way, as you see, I did remember to measure soil resistivity. It
> was the first thing I did. What buried wire do you think I used to
> measure it?
> ----
> Reg, G4FGQ
>
>

3691. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:49:48 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <2cqdnfDpb41bXXffRVn-gw@comcast.com>
Source record: 72457
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Nunya, you are so focused on a rule for the sake of an archaic rule that I wonder why you don't ride a horse, donkey or camel as your primary transportation. That way you never have to upgrade your thinking to include motor vehicles.

If you are reading this thread from the beginning, TOP DOWN, you are scrolling through hundreds of line of comments to find new comments. Never mind your wasted time. Think about the wasted bandwidth!!

Get with the changes that are happening. Bandwidth is a limited resource. TOP POST when and where appropriate.

BTW, vulgarity never wins an argument or establishes a well thought out point. Vulgarity causes people to form an opinion of you that is not in your best interest. Your use of vulgarity drags you to the gutter and many people simply turn you OFF.

NunYa Bidness wrote:
> On Thu, 28 Jul 2005 19:28:13 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>
>>NunYa:
>>
>>Do you even know about that man you just insulted?
>
>
> It doesn't matter, you non-conformal twit!
>
>>I grew up reading articles of his in publications.
>
>
> Good for you.
>
>
>> You picked the wrong
>>personality there... you just DO NOT realize EXACTLY how much you have
>>telegraphed your stupidity--but trust me, you could NOT have done it better...
>
>
> Bullshit. The words I wrote are spot on.
>
>
>>You would be hard pressed to ever prove yourself his equal...

>
>
> I am not trying to. What I am trying to do is to get you idiots to
> realize that putting your bullshit above what you are replying to is
> about as retarded as it gets, dumbass.

3692. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-29 23:58:29 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcefrj$8v1$1@news.service.uci.edu>
Source record: 72458

Richard Clark wrote:

> It is quite evident that through the actions of the first interface,
> that there is less energy incident upon the second interface.
> Further, given that both interfaces operate with identical reflective
> and transmissive properties, it follows the second interface could not
> reflect enough to totally negate the reflections of the first.

True for any one reflection. But as an optical engineer I'm sure you're aware that, even in a lossy medium, a given wave reflects back and forth multiple times before it's amplitude is reduced to insignificance. As you know, the measured amplitude at a surface would then be the superposition of multiple successively reflected waves.

So says JM Vaughn in his book "The Fabry-Perot Interfermeter". He cites Born and Wolf a lot. Also Kuhn, Steel, Liddell, Mcleod, Meissner, Tolansky, Jacquinot, and of course, Fabry and Perot. Strangely, no mention of Hecht.

For those who are interested, a Fabry-Perot interferometer is an optical instrument comprising two partially reflective parallel mirror surfaces separated by some fixed or variable distance. It's basically a narrow-bandpass filter at light wavelengths.

73, ac6xg

3693. 10 meter dish antenna on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 00:12:33 UTC
From: Hap Griffin <lgriffin@sc.rr.com>
Message-ID: <RBzGe.54559$oj4.1279316@twister.southeast.rr.com>
Source record: 72459

If you're interested in EME or radio-astronomy, there is a 10 meter C-band uplink dish available on ebay at http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5794042849&ssPageName=ADME:B:EF:US:1 .

Hap Griffin
WZ4O

3694. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 01:17:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ead64d$1_1@spool9-west.superfeed.net>
Source record: 72460

Ham op wrote:
> HEAVEN!!! for goodness sakes!

If it's the heaven my Southern Baptist tetotaler mother
told me about, the drinks will be severely limited to
water and grape juice. :-)

> Cecil Moore wrote:
>
>> John Smith wrote:
>>> Remember, when all is said and done, we must shake hands and have a
>>> drink together...
>>
>> Would that be in heaven or the other place? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3695. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 01:35:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42eada64$1_2@spool9-west.superfeed.net>
Source record: 72461

Roy Lewallen wrote:
> Since you say that power
> superposes, we should expect power waves to add and cancel just like
> voltage waves.

Strawman Alert!!! Richard H. did NOT say power superposes.
It is obvious that what he was disagreeing with was the
statement: "You CANNOT ... even talk about the "power"
of various reflections in the same media."
--
73, Cecil http://www.qsl.net/w5dxp

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3696. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 01:43:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11elmqalhrhfl32@corp.supernews.com>
Source record: 72462

Michael wrote:
> This has been done since the beginning of radio. Nothing new. However, I am
> interested in the sand antenna. I would love to hear more about working
> antennas that exist entirely below ground. I am guessing but would say this
> would not work on any band above 160 meters. I know the Navy has made huge
> underground radiators at frequencies like 50 khz. I would be surprised to
> hear that something as high as 1.8 mhz could be made to work.

I recall reading some years ago about underground antenna experiments done by the military. I believe the were done well into the HF range. A trench was dug, the antenna put into the trench but not in direct contact with the soil, then the top was covered. The objective was to make a concealed antenna for relatively short range communication. The signals were much weaker than for an above-ground antenna (~30 dB if I recall correctly, but I might not), but still usable for the purpose at hand. This shouldn't be surprising.

Roy Lewallen, W7EL

3697. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 01:50:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42eaddec$1_2@spool9-west.superfeed.net>
Source record: 72463

Richard Clark wrote:
> It is quite evident that through the actions of the first interface,
> that there is less energy incident upon the second interface.

On the contrary, it is quite evident that through the actions of the first interface, namely reflection and wave cancellation, that there is *MORE* energy incident upon the second interface. Here's the example from my earlier posting. Those who can, please calculate the forward power in the 1/4WL 100 ohm section. Who believes, like Richard C., that it cannot possibly be 100 watts or more?

100W 1/4WL
XMTR---50 ohm---+--------100 ohm---------+---200 ohm---200 load
feedline A feedline B feedline

> Torr had a question in this regard, but as he is a casual
> correspondent we have not seen any further comment from him - nor
> would I expect him to have amplified on your observation above.

Why don't you send Tor an email and allow him to teach you how to handle problems like these?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3698. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 02:04:20 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <cgmle1hb7lkvgcg5dfknasglc5j465gs2i@4ax.com>
Source record: 72464

On Fri, 29 Jul 2005 16:47:39 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Wes:
>
>Of course there are millions, if not billions of 'em in my computer, encased in
>the chips there, but having viewed many, many spec sheets and diagrams of the
>internal geometry of the chips, can't say I would really bet there is a
>colpitts commanding the freq of the bus in my computer, nor the daughter boards
>in their...(sic)

Well, there is usually only one oscillator, not billions, and I'm sure
that I said "Pierce", not Colpitts.

>
>Now you might be right, it is just an argument I must defer from, since
>reliable data one way or another cannot be obtained without expending more
>effort than I am prepared to expend... I'll even grant you a win by
>default--the argument simply is not deserving of my time, and anyone with
>access to the internet can look at a diagram depicting components used in the
>clocks of "modern circuits."

I just did a little "data mining." Out of the last 188 posts in this
forum, you made 47 of them, or 25%. Perhaps if you "expended some of
the effort" that you waste writing every fourth post you would have a
little time to actually research what you're saying -before- you write
about it. Just a thought.

BTW, I wasn't trying to "win", I was trying to correct the insane idea
that knowledge of "old time" oscillators is unworthy of study when
talking about "modern" radios. The fact that this belief exists is
proof positive that questions about these things should remain in the
amateur exams. But expending effort to learn the basics is too much
effort for "modern" hams.

Plus the applicant's self-esteem might suffer if he has to gain a
little knowledge of electronics, antennas, transmission lines, good
operating practice and Morse code, so I suppose the FCC should just
issue licenses to anyone who makes a request.

>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>news:7qdle19oqbkdc6d3q0uf9v11n468o638od@4ax.com...
>> On Fri, 29 Jul 2005 12:33:53 -0700, "John Smith"
>> <assemblywizard@gmail.com> wrote:
>>
>>>Ham op:

>>>
>>>Just drew the circuit of a xtal in the feedback of a high precision op amp
>>>circuit... hmmm, could be colpitts--but can't see the resemblance...
>>>
>>>Just drew the circuit of an xtal chucked in the feedback line of a set of
>>>logic
>>>gates... hmmm, that could be colpitts too, but again, can't see the
>>>resemblance...
>>
>> Draw a transistor (FET, or triode) with a capacitor from collector
>> (drain, plate) to emitter (source, cathode), an inductor from
>> collector to base (gate, grid), and a capacitor from base to emitter.
>>
>> Ground the emitter and everything connected to it and take the output
>> from the collector. You have a Pierce. Replace the inductor with a
>> crystal and you have a Pierce oscillator with the crystal operating in
>> the anti-resonant mode.
>>
>> Ground the collector and everything connected to it and take the
>> output from the emitter. You have a Colpitts. Replace the inductor
>> with a crystal and you have a Colpitts oscillator with the crystal
>> operating in the anti-resonant mode.
>>
>> Insert a crystal between the emitter and the two capacitors connected
>> to it and take the output from the emitter and you have a crystal
>> oscillator operating at series (or overtone) resonance.
>>
>> Stick a varactor in there someplace and you have a VCO or VCXO.
>>
>> Clapp, Vacker, Franklin, Butler.... they are all just variations on an
>> old theme.
>>
>>
>

3699. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 02:07:57 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <82715$42eae110$97d55eb8$1590@ALLTEL.NET>
Source record: 72465

You might be interested in the 1918 article on underground antennas.
http://www.rexresearch.com/rogers/1rogers.htm

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11elmqalhrhfl32@corp.supernews.com...
> Michael wrote:
> > This has been done since the beginning of radio. Nothing new. However, I
am
> > interested in the sand antenna. I would love to hear more about working
> > antennas that exist entirely below ground. I am guessing but would say
this
> > would not work on any band above 160 meters. I know the Navy has made
huge
> > underground radiators at frequencies like 50 khz. I would be surprised
to
> > hear that something as high as 1.8 mhz could be made to work.
>
> I recall reading some years ago about underground antenna experiments
> done by the military. I believe the were done well into the HF range. A
> trench was dug, the antenna put into the trench but not in direct
> contact with the soil, then the top was covered. The objective was to
> make a concealed antenna for relatively short range communication. The
> signals were much weaker than for an above-ground antenna (~30 dB if I
> recall correctly, but I might not), but still usable for the purpose at
> hand. This shouldn't be surprising.
>
> Roy Lewallen, W7EL

3700. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 02:48:31 UTC
From: W5DXP <w5dxp@hotmail.com>
Message-ID: <1122691711.436529.138360@g44g2000cwa.googlegroups.com>
Source record: 72466

Jim Kelley wrote:
> That's because power doesn't propagate, and
> I hasten to add - neither do Poynting vectors. Nor does power reflect,
> refract, or diffract. Power is a rate at which energy is transferred,
> absorbed, or dissipated. It's not a wave which propagates. It's a
> mathematical product of two of the characteristics of a wave that
> propagates.

I'm not arguing with you but as with all words, it depends upon how
one defines "power". You have your own personal narrow definition.
The power industry has a different definition.
Even the field of RF engineering has a definition of power
different from yours. The IEEE Dictionary has 11 pages of definitions
dealing with power including the "power reflection coefficient",
"power density of a traveling wave", "radiated power", "power-flow
vector", "power transfer", "power 'carried' by a waveguide" ...

Why don't you visit your local power company, call a meeting of their
engineers, and inform them that there is no power flowing in their
transmission lines? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3701. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 02:59:56 UTC
From: Larry Benko <lbenko@comcast.net>
Message-ID: <zLGdnbC48beKcHffRVn-3Q@comcast.com>
Source record: 72467

My sentiments exactly. Thanks for saying it Wes.

73,
Larry, W0QE

Wes Stewart wrote:

> I just did a little "data mining." Out of the last 188 posts in this
> forum, you made 47 of them, or 25%. Perhaps if you "expended some of
> the effort" that you waste writing every fourth post you would have a
> little time to actually research what you're saying -before- you write
> about it. Just a thought.
>

3702. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 03:04:13 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <aaCGe.165$9u4.3432501@news.sisna.com>
Source record: 72468

Wes:

I had dropped the all important word "transistors" in reference to
"millions... billions". I never dreamed anyone could be mistaken that
someone was claiming that many osc's in a computer, but you never can
tell about the CB'ers--they might think so!

Here is a mess of stuff on clocks, osc's which are generally used in
digital equip these days (and this is stuff I am used to,
a decade old or better technology, probably two decades!):

... it should be apparent mr. pierce is not
here in (at least most) of this material:

Simple logic gate oscillator:
http://www.it.lth.se/digp/PDF_files/oscillators.pdf

Design of op amp oscillators:
http://focus.ti.com/lit/an/slyt164/slyt164.pdf

CMOS oscillator:
http://www.ee.washington.edu/circuit_archive/circuits/F_ASCII_Schem.html#ASCIISCHEM_004

Clock divider:
http://www.ee.washington.edu/circuit_archive/circuits/clockdiv.txt

clock doubler:
http://www.ee.washington.edu/circuit_archive/circuits/clockdoubler.html

square wave to sine converter:
http://www.ee.washington.edu/circuit_archive/circuits/square2sine.txt

pdf on digital oscillators:
http://online.physics.uiuc.edu/courses/phys405/fall04/P405_Labs/Lab2_TTL_Logic/Lab2_TTL_Logic.pdf

Computer project, using 7404 as a clock:
https://www.cs.tcd.ie/Jeremy.Jones/3d2/3d2project.htm

John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:cgmle1hb7lkvgcg5dfknasglc5j465gs2i@4ax.com...
> On Fri, 29 Jul 2005 16:47:39 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Wes:
>>

>>Of course there are millions, if not billions of 'em in my computer, encased
>>in
>>the chips there, but having viewed many, many spec sheets and diagrams of the
>>internal geometry of the chips, can't say I would really bet there is a
>>colpitts commanding the freq of the bus in my computer, nor the daughter
>>boards
>>in their...(sic)
>
> Well, there is usually only one oscillator, not billions, and I'm sure
> that I said "Pierce", not Colpitts.
>
>>
>>Now you might be right, it is just an argument I must defer from, since
>>reliable data one way or another cannot be obtained without expending more
>>effort than I am prepared to expend... I'll even grant you a win by
>>default--the argument simply is not deserving of my time, and anyone with
>>access to the internet can look at a diagram depicting components used in the
>>clocks of "modern circuits."
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> I just did a little "data mining." Out of the last 188 posts in this
> forum, you made 47 of them, or 25%. Perhaps if you "expended some of
> the effort" that you waste writing every fourth post you would have a
> little time to actually research what you're saying -before- you write
> about it. Just a thought.
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> BTW, I wasn't trying to "win", I was trying to correct the insane idea
> that knowledge of "old time" oscillators is unworthy of study when
> talking about "modern" radios. The fact that this belief exists is
> proof positive that questions about these things should remain in the
> amateur exams. But expending effort to learn the basics is too much
> effort for "modern" hams.
>
> Plus the applicant's self-esteem might suffer if he has to gain a
> little knowledge of electronics, antennas, transmission lines, good
> operating practice and Morse code, so I suppose the FCC should just
> issue licenses to anyone who makes a request.
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>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
>>news:7qdle19oqbkdc6d3q0uf9v11n468o638od@4ax.com...
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>>>>Just drew the circuit of an xtal chucked in the feedback line of a set of

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>>>>gates... hmmm, that could be colpitts too, but again, can't see the
>>>>resemblance...
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>>> Draw a transistor (FET, or triode) with a capacitor from collector
>>> (drain, plate) to emitter (source, cathode), an inductor from
>>> collector to base (gate, grid), and a capacitor from base to emitter.
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>>> Ground the emitter and everything connected to it and take the output
>>> from the collector. You have a Pierce. Replace the inductor with a
>>> crystal and you have a Pierce oscillator with the crystal operating in
>>> the anti-resonant mode.
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>>> Insert a crystal between the emitter and the two capacitors connected
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>>> oscillator operating at series (or overtone) resonance.
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>>> Stick a varactor in there someplace and you have a VCO or VCXO.
>>>
>>> Clapp, Vacker, Franklin, Butler.... they are all just variations on an
>>> old theme.
>>>
>>>
>>
>

3703. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:12:45 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <47DGe.177$NC4.3468393@news.sisna.com>
Source record: 72469

Wes:

On promptness of my responses...
(I am truly flattered my posts are worthy of such analysis on your part! I would never have bothered gathering the statistics!)
I wrote a c++ utility/plug-in for outlook express, if I mark someone as being of interest to me, when they post I am immediately notified with a small icon and an audible alarm is given, if I click on the icon I can read their post and begin a response immediately--if desired...

Now, don't go to thinking you are special, however, when your posts turn interesting (or adversarial <grin>) I mark you (you are a "marked man" during those times! <grin>)...

I have other tricks too... however, be warned, I consider this to be only a newsgroup, my posts, indeed, everyone else's posts too, are just NOT that important as some things in life... quick responses which may, or may not, be well thought out are quickly typed and sent--I go back to what I was doing...

Don't get me wrong though, a person is as likely to come upon a nugget of knowledge here, as anywhere, I suppose... anyway, there is a real "enjoyment factor" which exits here, that is why we are here--isn't it?

Frankly, it is a bit of a hobby, just one a guy can do while doing a load of other things...

John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:cgmle1hb7lkvgcg5dfknasglc5j465gs2i@4ax.com...
> On Fri, 29 Jul 2005 16:47:39 -0700, "John Smith"
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>>Of course there are millions, if not billions of 'em in my computer, encased
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> forum, you made 47 of them, or 25%. Perhaps if you "expended some of
> the effort" that you waste writing every fourth post you would have a
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> about it. Just a thought.
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> BTW, I wasn't trying to "win", I was trying to correct the insane idea
> that knowledge of "old time" oscillators is unworthy of study when
> talking about "modern" radios. The fact that this belief exists is
> proof positive that questions about these things should remain in the
> amateur exams. But expending effort to learn the basics is too much
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> Plus the applicant's self-esteem might suffer if he has to gain a
> little knowledge of electronics, antennas, transmission lines, good
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>>"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
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>>> from the collector. You have a Pierce. Replace the inductor with a
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>>> Stick a varactor in there someplace and you have a VCO or VCXO.
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>>> Clapp, Vacker, Franklin, Butler.... they are all just variations on an
>>> old theme.
>>>
>>>
>>
>

3704. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:17:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11elvqvgjrhpk5c@corp.supernews.com>
Source record: 72470

Fred W4JLE wrote:
> You might be interested in the 1918 article on underground antennas.
> http://www.rexresearch.com/rogers/1rogers.htm

Thanks for the reference. A key observation from it is:

"One of the Naval experts present mentioned that it had been found that the penetration of the ground wave component increases with an increase in wavelength. This is an important fact and helps to explain the operation of this new radio system, with its aerials buried in the ground."

I believe this method is still being used for communications to submarines. It depends heavily on the very great skin depth and relatively low attenuation in sea water at the VLF wavelengths used.

The buried antennas I was referring to operate, as far as I know, with normal field propagation through the air, not through the ground.

Here are the skin depth in feet and attenuation per foot in salt water:

Freq Skin Depth Atten
ft dB per ft

10 MHz 0.23 37
1 MHz 0.73 12
100 kHz 2.3 3.7
10 kHz 7.4 1.2
1 kHz 23 0.37
100 Hz 74 0.12

And here they are for average ground:

Freq Skin Depth Atten
ft dB per ft

10 MHz 13 0.66
1 MHz 25 0.34
100 kHz 74 0.12
10 kHz 230 0.037
1 kHz 738 0.012
100 Hz 2300 0.0037

So communication through the ground or even salt water is practical at low frequencies. High frequency is another matter, though. But that doesn't preclude using buried antennas for sky wave propagation.

Roy Lewallen, W7EL

3705. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:20:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11elvvom9qac3b5@corp.supernews.com>
Source record: 72471

John Ferrell wrote:
> I agree that it was an April issue and I think my old friend W8DMR
> (Bill) may have written it. However, I was thinking it more in the mid
> 60's.
>
> de W8CCW

My guess as to the date could easily be that far off. But if your friend wrote it for QST or HR, he used a pseudonym -- I don't see his call or name in the inclusive indexes of either magazine.

It must have been in CQ or 73. I can still recall the diagram, showing the buried antenna and the dotted "image" above ground.

Roy Lewallen, W7EL

3706. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:23:19 UTC
From: kashe@sonic.net
Message-ID: <i40me1d3qvek6oq5k003291t6fm1lllfgm@4ax.com>
Source record: 72472
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 23 Jul 2005 19:59:23 +0100, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 23 Jul 2005 11:27:56 -0700, "John Smith"
><assemblywizard@gmail.com> wrote:
>
>>I will be top posting...
>
>And I will be killfiling you, like all other top-posting fools ....
>because top-posters invariably have nothing to say that is worth
>reading.
>
>Goodbye.

That's sure a rational connection. Are you sure you don't work
in HR?

3707. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:27:32 UTC
From: kashe@sonic.net
Message-ID: <n90me15hkvlqko9da51o1v8nhfq27a7r34@4ax.com>
Source record: 72473
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

If you're keeping up with the conversation, top posting is far
more efficinet then reading the bottom posters who expect ou to scroll
through a hunderd liones oof crap so you can find out their
contribution consisted of "Huh?"

On Fri, 29 Jul 2005 02:07:28 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Thu, 28 Jul 2005 17:16:06 -0700, Roy Lewallen <w7el@eznec.com> Gave
>us:
>
>>My, that's just too good to pass up. An opportunity to have a title
>>bestowed by the esteemed and widely respected authority on etiquette and
>>gee, who knows what else, NunYa Bidness.
>>
>>Roy Lewallen, W7EL
>> -- now with yet another title, FAI
>
>
> Like I said before... You seem all too willing to conform to the
>standards and practices of the HAM world. What is so different about
>this forum, and doing things the way they have always been done here?
>Why do you have to blatantly display your unwillingness to conform to
>what has long been the accepted practice?
>
> Screw you, and your hypocrisy.
> Yet another idiot, you are.
> The word for today is CONFORM

Maoist bullshit.

3708. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:31:20 UTC
From: kashe@sonic.net
Message-ID: <9f0me15ibc5u198g3fnnmi78j4vp4cas0e@4ax.com>
Source record: 72474
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 29 Jul 2005 18:26:45 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Retarded is posting profanities. It indicates a lack of vocabulary, and
>speaks volumes as to your character.

Bullshit. I was once tested and found to have a vocabulary
size comparable only to lawyers and clergymen -- the two
highest-scoring groups. It is expanded, not diminished, by some
hundred or two peofane words.profane words.

Stop your inane whimpering jst because you can't express
yourself well.

3709. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:33:54 UTC
From: kashe@sonic.net
Message-ID: <en0me1t4p985g6il872qgjfjkvddp2hmg6@4ax.com>
Source record: 72325
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 22:22:32 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sun, 24 Jul 2005 15:06:54 +0100, "Polymath"
><invalid@invalid.invalid> Gave us:
>
>>Indeed, the "governing" RFC even went so far as to
>>state that bottom posting was the preferred method
>>of the author but that there was no hard and fast rule
>>about it.
>>
>>With top posting, you can quickly "thumb" through the
>>posts with your hand on the "Next" button. With bottom
>>posting you have to page down through much already-seen
>>and over-quoted material. The net result is that bottom-posted
>>articles tend to get skipped without the new material being read
>>let alone being visible.
>
> If you are skipping posts in threads which you were at one time
>reading, you have some serious skills problems that go far beyond your
>simplistic laziness to use more than one clic per post. You have the
>mentality of a high school drop-out.

What a bunch of psychobabble. Keep your soft science (at best)
off of a technical forum.

3710. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:37:34 UTC
From: kashe@sonic.net
Message-ID: <pq0me1phguadgosba7lu4egk3mkpvh8v2e@4ax.com>
Source record: 72326
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 04:56:16 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sun, 24 Jul 2005 20:04:00 -0400, Ham op <hamop@comcast.net> Gave
>us:
>
>>You haven't given one logical reason to bottom post.
>>
>>You revert to name calling, insults, IQ assassination, challenging my
>>IQ, while clearly demonstrating your IQ. Give a positive benefit of
>>bottom posting, other than that's the way it's done, specially when a
>>post may be very long, several pages or more, that requires scrolling
>>through to locate your asinine answer. I could read your answer
>>immediately and simply ignore it, if it were TOP POSTED.
>
> You do not understand what Usenet is then. It isn't a message board
>between two folks having a conversation, it IS a place where such
>conversations can benefit any and all that read them. The entire
>point of proper posting is so that ANY person popping into the group
>for a read, can garner the entire idea of a post *without* having to
>go find, download, and plow through a number of others to do it.

Fuck the dilettantes -- if they're hot to find out what the
top post was about wjen they "pop in", let them get off their lazy
asses and scroll down. I've already read all that crap and don't feel
like scrolling past it for thirty posts in a row.

If you can't keep up with the flow, move to
alt.kindergarten.reading.level.

Help us all out by "popping out".

> It
>has nothing to do with YOUR convenience and everything to do with the
>stray "just walked in" reader. Your attitude about the whole thing is
>what is asinine, and that alone is what prompted your much deserved
>put downs. In other words, you DO have a reduced IQ if you don't even
>have the time to read, learn and follow the protocols and expectations
>of a forum you happen to think is some "do as you please" thing, when
>it is not, by any stretch. Your convenience is not the issue in any
>way.

3711. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:39:22 UTC
From: richardharrison@webtv.net
Message-ID: <8747-42EB047A-585@storefull-3252.bay.webtv.net>
Source record: 72328

Jim Kelley wrote:
"That`s because power doesn`t propagate, and hasten to add - neither do Poynting vectors."

Words are not objects. They merely represent objects. We use abstractions for brevity and clarity. Even the best say: "--the Poynting vector or power density (watts per square meter)." See Kraus` 3rd edition of "Antennas" page 73, under "Power Patterns".

Best regards, Richard Harrison, KB5WZI

3712. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:39:55 UTC
From: kashe@sonic.net
Message-ID: <211me1damnnt7cbeml2b378h1nlkfeggcg@4ax.com>
Source record: 72327
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 14:37:10 +0000, Jock. <real_class_a2003@yahoo.fr>
wrote:

>On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> wrote:
>
>>I've used the internet since 1985 [DARPA net] and have yet to see the
>>11th commandment prohibiting top posting or forcing bottom posting.
>>
>>I prefer TOP POSTING. I've read the original message previously, it is
>>stored sequentially on my computer sorted by thread and date if I need a
>>refresher, and I don't have to scroll through a lot of attached garbage
>>to get to your meaningful or meaningless comments.
>>
>>TOP POSTING, IMO, provides much more efficient use of my time.
>
>What's so bloody important about your time?

It's important to me. Let's just settle on -- I'll top-post
and move on; you can just ignore the first few lines and read to the
bottom, then scroll back up to the top to find the really good stuff.

>
>Don't top-post.
>
>73 de Jock.

3713. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:44:57 UTC
From: kashe@sonic.net
Message-ID: <oa1me15ijfjc1ld82n6fi1t0g09to2vc22@4ax.com>
Source record: 72329
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 22:18:40 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> Gave
>us:
>
>>I've used the internet since 1985 [DARPA net] and have yet to see the
>>11th commandment prohibiting top posting or forcing bottom posting.
>>
>>I prefer TOP POSTING. I've read the original message previously
>
>
> It isn't about what you have read, or what you have stored. Get a
>clue.
>
>>, it is
>>stored sequentially on my computer sorted by thread and date if I need a
>>refresher, and I don't have to scroll through a lot of attached garbage
>>to get to your meaningful or meaningless comments.
>
> What you fail to realize is that what you have stored, and the
>manner which you read Usenet is not how everyone does it. The
>protocols (which do exist) are in place to increase understanding of
>the post from that very post, without the need to look up or download
>additional posts. Are you getting it yet?
>
>>
>>TOP POSTING, IMO, provides much more efficient use of my time.
>
> You are what Usenet users that actually know what the forum is about
>call LAZY. How hard can it be, and a few seconds is not some critical
>number. Are you really that pathetic?
>
>>
>>Get a life. There's much more to life than criticizing where a response
>>is posted.
>
> Funny that the only places idiots like you conform is when there is
>no way to get what you want otherwise, or if a cop has a gun pointed
>at you. You are the same type of idiot I see here in California that
>doesn't stop for stopped traffic. They traverse either to the right
>or left like little inertial idiots, or the idiots that wear their
>pants down past their ass.

Shit, dude -- move to a more upscale neighborhood.

(Bottom posted so that you don't have to give up too many of our
precious IQ points to find it.)

3714. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:48:23 UTC
From: kashe@sonic.net
Message-ID: <8j1me150q48nld80cve5e7vau4hlei0ulg@4ax.com>
Source record: 72330
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 22:16:41 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Glad you enjoy it John, As California is about to fall in the ocean from the
>"big one", we should probably enjoy the left wing babble before it becomes a
>mere memory...

Bullshit -- at the big one, everything east of CA will slide
into the Atlantic.

>
>
>"John Smith" <assemblywizard@gmail.com> wrote in message
>news:xVWEe.155$LI.1937501@news.sisna.com...
>> Fred:
>>
>> My gawd man, your posts have improved tremendously since I have come here!
>

3715. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:49:17 UTC
From: kashe@sonic.net
Message-ID: <fl1me1l1ei6roeoqcv1cpmtssahr62rqmt@4ax.com>
Source record: 72331
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

right.
A
Fuckin'

On Mon, 25 Jul 2005 00:35:22 GMT, Frank Turner-Smith G3VKI
<g3vki@turner-smith.co.uk> wrote:

>Usenet?
>on
>it
>do
>why
>so
>not
>thought
>I
>backwards?
>everything
>write
>normally
>you
>Do
>NunYa Bidness wrote:
>> On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> Gave
>> us:
>>
>>
>>>I've used the internet since 1985 [DARPA net] and have yet to see the
>>>11th commandment prohibiting top posting or forcing bottom posting.
>>>
>>>I prefer TOP POSTING. I've read the original message previously
>>
>>
>>
>> It isn't about what you have read, or what you have stored. Get a
>> clue.
>>
>>
>>>, it is
>>>stored sequentially on my computer sorted by thread and date if I need a
>>>refresher, and I don't have to scroll through a lot of attached garbage
>>>to get to your meaningful or meaningless comments.
>>
>>

>> What you fail to realize is that what you have stored, and the
>> manner which you read Usenet is not how everyone does it. The
>> protocols (which do exist) are in place to increase understanding of
>> the post from that very post, without the need to look up or download
>> additional posts. Are you getting it yet?
>>
>>
>>>TOP POSTING, IMO, provides much more efficient use of my time.
>>
>>
>> You are what Usenet users that actually know what the forum is about
>> call LAZY. How hard can it be, and a few seconds is not some critical
>> number. Are you really that pathetic?
>>
>>
>>>Get a life. There's much more to life than criticizing where a response
>>>is posted.
>>
>>
>> Funny that the only places idiots like you conform is when there is
>> no way to get what you want otherwise, or if a cop has a gun pointed
>> at you. You are the same type of idiot I see here in California that
>> doesn't stop for stopped traffic. They traverse either to the right
>> or left like little inertial idiots, or the idiots that wear their
>> pants down past their ass.
>YAWN! Another 12 year old who thinks he pioneered the universe.

3716. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:50:41 UTC
From: kashe@sonic.net
Message-ID: <tn1me1tlqat5et0a3cu91b6ntnccq8vbqr@4ax.com>
Source record: 72332
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Look up the phrase "Piss off".

On Tue, 26 Jul 2005 17:00:00 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Tue, 26 Jul 2005 08:02:30 -0700, "John Smith"
><assemblywizard@gmail.com> Gave us:
>
>>NunYa NumNuts:
>>
>>Ohh, I know how IT USED TO BE...
>
> I know that you're an idiot.
>>
>>Some just don't realize HOW IT IS NOW.
>
> That'd be you as well. Nothing has changed.
>
> It is a text based forum. Get used to it.
>
> Look up the word chronology.

3717. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:54:57 UTC
From: kashe@sonic.net
Message-ID: <cr1me1pdsnrhpd6u3sl6dp0a31ltrj8pjt@4ax.com>
Source record: 72333
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 10:14:44 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>John Smith wrote:
>> Take books for example, when getting a new ones, in a series, I
> > hardly ever re-read the old one just to get a start on the new one.
>
>Yes, but do you read the last chapter of the book first? :-)

Not always, but I just opened a book last week to around page
89. It was a hell of a good read, so I found it worth going back to
restart at page one. :-)

I also rotate around among three to five books I'm reading
simultaneously.

3718. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 04:55:57 UTC
From: kashe@sonic.net
Message-ID: <m12me1dc2mk7t2v5f57rjnfnmu56om8lr6@4ax.com>
Source record: 72334
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 10:14:44 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>John Smith wrote:
>> Take books for example, when getting a new ones, in a series, I
> > hardly ever re-read the old one just to get a start on the new one.
>
>Yes, but do you read the last chapter of the book first? :-)

No -- that would be too much like skimming through to get to
the bottom posting. ;-)

3719. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 05:05:05 UTC
From: kashe@sonic.net
Message-ID: <na2me15jnf8t9ekmcoksu386d7jqbq7g4r@4ax.com>
Source record: 72336
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Tue, 26 Jul 2005 20:20:01 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>John Smith wrote:
>> ... you still got a bottle of that wine left (napa valley, NOT french, ...
>
>Franzia Merlot from Ripon, CA. Where is Ripon?

Just east of Ripoff. :-)
Acually <http://www.cityofripon.org/_Maps/10mirad.htm>

3720. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 05:09:23 UTC
From: kashe@sonic.net
Message-ID: <hm2me1pmlbqcopcicjjc12db8cddgd7uj8@4ax.com>
Source record: 72335
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 17:44:13 -0700, "Ed Price" <edprice@cox.net>
wrote:

>
>"Ham op" <hamop@comcast.net> wrote in message
>news:caOdnZ8J072NAn7fRVn-1A@comcast.com...
>> I've used the internet since 1985 [DARPA net] and have yet to see the 11th
>> commandment prohibiting top posting or forcing bottom posting.
>>
>> I prefer TOP POSTING.
>
>
>
>And I prefer editing and bottom posting. Obviously, if you don't take the
>time to distill the OP's comments, then you bury your reply under his
>verbiage. Perhaps one of the best arguments for editing is that you have to
>think about what's important in the previous post. That allows you to focus
>your reply.
>
>Another criteria for deciding to top or bottom post is your estimation of
>the audience. Critical thinkers will want to review the salient points of
>the discussion, and an edited bottom post gives them the facts in a linear
>fashion. However, if you think your audience is a bunch of
>attention-deficient rude boobs, then top posting is indicated. Top posting
>is ideally suited to replies that consist of "Yeah, me too!"

I rarely see those -- they usually appear at the end of a
properly-formatted bottom post, right after the original 235-line
posting.

By the way, not to be a spelling Nazi, but if you're going to
appear oh so proper and pompous, you really should look up the
singular of criteria for when (as above) its the correct word.

3721. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 05:10:34 UTC
From: kashe@sonic.net
Message-ID: <ks2me1h3rclvuejbquuqgreh8st38refsm@4ax.com>
Source record: 72338
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Mon, 25 Jul 2005 08:28:46 +0100, Spike
<Aero.Spike@Technologies.invalid> wrote:

>Ed Price wrote:
>
>>Obviously, if you don't take the
>>time to distill the OP's comments, then you bury your reply under his
>>verbiage. Perhaps one of the best arguments for editing is that you have to
>>think about what's important in the previous post. That allows you to focus
>>your reply.
>
>What an excellent philosophy.
>
>Perhaps the top-posters and non-editors are merely guilty of lack of
>focus and an ability to think.
>
>from
>Aero Spike

Or are just unwilling to trace over ground already many-times
plowed.

3722. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 05:13:33 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <50EGe.181$As5.4132938@news.sisna.com>
Source record: 72340
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

kashe:

You are in good form tonight, I am splitting a gut reading those responses of yours! <grin>

I was bored and headed for bed, till you showed up...

John

<kashe@sonic.net> wrote in message
news:m12me1dc2mk7t2v5f57rjnfnmu56om8lr6@4ax.com...
> On Tue, 26 Jul 2005 10:14:44 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>John Smith wrote:
>>> Take books for example, when getting a new ones, in a series, I
>> > hardly ever re-read the old one just to get a start on the new one.
>>
>>Yes, but do you read the last chapter of the book first? :-)
>
> No -- that would be too much like skimming through to get to
> the bottom posting. ;-)

3723. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 05:14:07 UTC
From: kashe@sonic.net
Message-ID: <o33me1hhp7e9dhfimc6b8fdc3camlsuj7f@4ax.com>
Source record: 72337
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 07:40:02 +0100, Big Mac.
<clansman@nospam.here.com> wrote:

>On Sat, 23 Jul 2005 12:38:23 -0700, "John Smith"
><assemblywizard@gmail.com> drivelled:
>
>>If you want to say something to me, don't intermingle it together with
>>all the text I just wrote, I remember what I wrote, just write a damn
>>reply...
>
>He probably just did that because the average American seems to have
>the attention span of a goldfish.
>
>Not that I have anything against Americans. In fact I support several
>charities that look after dumb creatures.

Shoudn't you be out looking for bombers instead of wasting
time on usenet?

3724. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 06:44:46 UTC
From: Spike <Aero.Spike@Technologies.invalid>
Message-ID: <s08me15iree48sp1m0p3uhbjtiicanbub9@4ax.com>
Source record: 72339
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

kashe@sonic.net wrote:

>On Mon, 25 Jul 2005 08:28:46 +0100, Spike
><Aero.Spike@Technologies.invalid> wrote:
>
>>Ed Price wrote:
>>
>>>Obviously, if you don't take the
>>>time to distill the OP's comments, then you bury your reply under his
>>>verbiage. Perhaps one of the best arguments for editing is that you have to
>>>think about what's important in the previous post. That allows you to focus
>>>your reply.
>>
>>What an excellent philosophy.
>>
>>Perhaps the top-posters and non-editors are merely guilty of lack of
>>focus and an ability to think.
>>
>
>Or are just unwilling to trace over ground already many-times plowed.

Or ploughed.

One thing that top-posters fail to recognise is that not all ng users
set their readers to order posts by thread. It is quite possible, with
a suitable newsreader, to order posts by time and date, rather than
subject.

Unfortunately, those who merely bang the Reply key to top-post their
answer frequently have the point to which they are replying way off
the bottom of the screen, which it is not immediately obvious without
scrolling down.

Top-posting also encorages the lazy or incompetent to avoid properly
trimming their posts.

There are even those who used to trim and bottom-post who now top-post
exclusively, but who quote the RFC as if it is some religious mantra
in some form of self-justification.

from
Aero Spike

3725. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 07:10:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vhhle1ptvobg88fck7pb2lb2cqaa18g8af@4ax.com>
Source record: 72341

On Fri, 29 Jul 2005 16:58:29 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>> It is quite evident that through the actions of the first interface,
>> that there is less energy incident upon the second interface.
>> Further, given that both interfaces operate with identical reflective
>> and transmissive properties, it follows the second interface could not
>> reflect enough to totally negate the reflections of the first.
>
>True for any one reflection.

Hi Jim,

And true for ALL accumulated reflections there after. Reflections do
not add any energy to the cup when the first interface is draining it
more quickly.

>But as an optical engineer I'm sure you're
>aware that, even in a lossy medium, a given wave reflects back and forth
>multiple times before it's amplitude is reduced to insignificance. As
>you know, the measured amplitude at a surface would then be the
>superposition of multiple successively reflected waves.

My analysis allowed ALL of the energy in the reflection from the
second interface (0.098X) to combine with the first reflection
(0.11X). This total superposition was both more than generous, and at
the same time very unlikely; and yet with this generous allowance
there is still excess reflection from the first interface. Hence for
something less than total superposition of ALL energies, it hardly
bodes a better yield in total cancellation - the energy just isn't
there in the first place. 0.098X <> 0.11X is the simple economics of
the balance.

As an optical engineer, I've dealt with the harsh reality of this myth
of total reflection cancellation. I've designed systems with 9 orders
of dynamic range and the couple of percent dashed off as being
invisible by academics was distinctly and overwhelmingly present.
Basically I had the advantage in fluorescence measurement in being
able to turn off my detector during the initial flash to suppress the
reflection products in time rather than in these shenanigans (I did
them too - and certainly much more - because even the detector can be
blinded in its "off" state).

Basically these claims are for first year students where demanding too
much inquiry would push them into switching majors to Business school.
Simple optics with simple, ordinary glasses exhibit quite useful
results, but they do not embody a proof. To anyone following the math

of my presentation, it is quite obvious what WOULD tend towards a more complete cancellation - and such a subtle shift in the formula diverges only slightly from the choir book hymn. It's not that hard when the interface ratios drive the answer.

73's
Richard Clark, KB7QHC

3726. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 09:12:41 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <dwHGe.14269$YL5.4063@newsfe2-win.ntli.net>
Source record: 72342
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Bidness wrote:
> On Fri, 29 Jul 2005 22:13:59 +0100, "Polymath"
> <invalid@invalid.invalid> Gave us:
>
>
>>sdrawkcab is backwards spelt backwards!
>
>
> A complete idiot, you are.

No he's not, there's LOADS of bits missing.
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3727. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 09:15:08 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <wyHGe.14271$YL5.23@newsfe2-win.ntli.net>
Source record: 72343
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Spike wrote:
>
> Truly it can be said that of this week's outbursts
> 'Les sanglots longs Des violons Du Grand Poseur
> Blessent mon coeur D'une langueur Monotone'
>
> from
> Aero Spike

Wot? That's foreign innit? Bleedin' Frogs!
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3728. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 10:07:48 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42eb5368$3_1@x-privat.org>
Source record: 72345
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Mrs.Nugatory has used the pseudonym, "Zolaist" in the past.

Perhaps that is an indicator of her attention-seeking behaviour in this NG?

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:6011e$42eabe74$97d55eb8$10677@ALLTEL.NET...
> Sounds like some kind of Emile Zola nonsense...
>>
>> "Spike" <Aero.Spike@Technologies.invalid> wrote in message
>> news:j2ele19c9pj4q90m79givgf70qa8tvhkt7@4ax.com...
>> > Truly it can be said that of this week's outbursts
>> > 'Les sanglots longs Des violons Du Grand Poseur
>> > Blessent mon coeur D'une langueur Monotone'

3729. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 10:17:34 UTC
From: Polymath <invalid@invalid.invalid>
Message-ID: <42eb5369$1_1@x-privat.org>
Source record: 72344
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

You sent me scurrying to my dictionary!

A very "profande" observation of yours, if I may be so bold?

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:o0ime19ephs88grtosb5eoar33saon9nfo@4ax.com...
>
> "Profanities" are only profane if you are religious, anyway ... and a
> lot of people nowadays are not.

3730. FA: 1-Day-Left: 19 Issues - IEEE Transactions on MICROWAVE THEORY and TECHNIQUES

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 11:40:27 UTC
From: Andy <andy@aksjoifska.com>
Message-ID: <300720050740273054%andy@aksjoifska.com>
Source record: 72346
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4564539117

3731. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 11:54:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42eb6b78$1_2@spool9-west.superfeed.net>
Source record: 72347

John Smith wrote:
> I had dropped the all important word "transistors" in reference to
> "millions... billions". I never dreamed anyone could be mistaken that
> someone was claiming that many osc's in a computer, but you never can
> tell about the CB'ers--they might think so!

How many oscillators are there if you include quantum oscillators? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3732. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 11:57:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42eb6c54$1_2@spool9-west.superfeed.net>
Source record: 72348

Richard Harrison wrote:

> Jim Kelley wrote:
> "That`s because power doesn`t propagate, and hasten to add - neither do
> Poynting vectors."
>
> Words are not objects. They merely represent objects. We use
> abstractions for brevity and clarity. Even the best say: "--the Poynting
> vector or power density (watts per square meter)." See Kraus` 3rd
> edition of "Antennas" page 73, under "Power Patterns".

If we send a pulse of energy down a transmission line, one
wonders where the power in the pulse is if not in the pulse.
--
73, Cecil http://www.qsl.net/w5dxp

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3733. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 12:18:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42eb7124$1_1@spool9-west.superfeed.net>
Source record: 72349

Richard Clark wrote:
> And true for ALL accumulated reflections there after. Reflections do
> not add any energy to the cup when the first interface is draining it
> more quickly.

If the first interface is a Z0-match, it is not "draining it"
at all. That's what you are missing. The examples have been
for matched systems. If you change your medium 3 to an index
of refraction of 4.0 instead of 4.04, your example is *perfectly
matched* and the first interface is NOT draining the system
because all reflections are canceled. 100% of the source power
is being delivered through the first interface because of that
wave cancellation. At that point it is being joined by the
reflected power so the forward power in the second medium is
greater than the source power. In the second medium, forward
power equals source power plus reflected power. In your example,
source power is one watt, forward power in the second medium is
1.125 watt, and reflected power in the second medium is 0.125 watt.

> My analysis allowed ALL of the energy in the reflection from the
> second interface (0.098X) to combine with the first reflection
> (0.11X). This total superposition ...

Power cannot be superposed. If you are going to deal with power,
you need to use the interference equations for power calculations.
Or alternately, convert the powers to voltages, superpose the
voltages, and then calculate the power from the superposed voltage.
That's what most RF engineers do and it works well.

> As an optical engineer, I've dealt with the harsh reality of this myth
> of total reflection cancellation.

Since you don't understand the physics, it is no wonder that you
failed to accomplish total reflection cancellation. And total
reflection cancellation is easier to accomplish in a transmission
line than it is with light in air.
--
73, Cecil http://www.qsl.net/w5dxp

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3734. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 13:10:26 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <6nume1tmd4kt669nnc097c8qmqe0hc4t47@4ax.com>
Source record: 72350

He may have used a pseudonym. He did prefer to write for CQ, they paid
a little bit where QST did (does?) not. I have been out of touch with
Bill since leaving the Central Ohio area.

As I recall, after he had one such artical published he received quite
a few letters from people who took it seriously.

de W8CCW

On Fri, 29 Jul 2005 21:20:08 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>John Ferrell wrote:
>> I agree that it was an April issue and I think my old friend W8DMR
>> (Bill) may have written it. However, I was thinking it more in the mid
>> 60's.
>>
>> de W8CCW
>
>My guess as to the date could easily be that far off. But if your friend
>wrote it for QST or HR, he used a pseudonym -- I don't see his call or
>name in the inclusive indexes of either magazine.
>
>It must have been in CQ or 73. I can still recall the diagram, showing
>the buried antenna and the dotted "image" above ground.
>
>Roy Lewallen, W7EL

3735. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 13:13:08 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <e5vme1dg9ju0ic8doep2n14t0mducg249m@4ax.com>
Source record: 72351

That is great!

I will use that at the next Lios Club meeting and aso in my church
newsletter...

de W8CCW

On Fri, 29 Jul 2005 18:01:11 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>My brother quit the power company when they were switching to "underground
>utilities" - he got tired of burying those telephone poles so deep! And I
>had to give up chicken farming because the county extension agent said I was
>planting them too deep - I think I must have been planting them too near the
>underground power lines.
>
>
>"John Smith" <assemblywizard@gmail.com> wrote in message
>news:2DwGe.90$Va1.2301981@news.sisna.com...
>> Reg:
>>
>> I can't even dream of burying a perfectly good, working, beautiful, sleek
>> antenna!
>>
>> ... I shall refrain from burying any antenna, before its' time ...
>>
>> John
>

3736. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 14:44:53 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <9ac$42eb929b$97d55eb8$31586@ALLTEL.NET>
Source record: 72352

Back in the day, we received traffic from the station in Jim Creek while submerged. They used a 13 mile array strung between 2 mountains. IIRC it was on 18KC. CW only as any frequency shift would have put the finals out of resonance. Much better methods today that remain classified.

I know we could receive it when submerged in the Red Sea.

"Roy Lewallen" <w7el@eznec.com> wrote in message news:11elvqvgjrhpk5c@corp.supernews.com...
> I believe this method is still being used for communications to
> submarines. It depends heavily on the very great skin depth and
> relatively low attenuation in sea water at the VLF wavelengths used.
>
> The buried antennas I was referring to operate, as far as I know, with
> normal field propagation through the air, not through the ground.
>
> So communication through the ground or even salt water is practical at
> low frequencies. High frequency is another matter, though. But that
> doesn't preclude using buried antennas for sky wave propagation.
>
> Roy Lewallen, W7EL

3737. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 15:57:56 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <esNGe.216$bR3.5710997@news.sisna.com>
Source record: 72353

Cecil:

Good point, it is going on in there... I think of 'em more as "quantum white noise generators."

John

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:42eb6b78$1_2@spool9-west.superfeed.net...
> John Smith wrote:
>> I had dropped the all important word "transistors" in reference to
>> "millions... billions". I never dreamed anyone could be mistaken that
>> someone was claiming that many osc's in a computer, but you never can
>> tell about the CB'ers--they might think so!
>
> How many oscillators are there if you include quantum oscillators? :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3738. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 16:16:59 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <7KNGe.217$QC4.5984354@news.sisna.com>
Source record: 72354
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Spike:

We construct our messages on machines which were built to do anything. If you have the correct hardware/software/knowledge you can have a "virtual world" where all is exactly as you would like.

Still the computer illiterate scream for others to do it for them, clip the messages, format, etc...

Get a newsreader which does it the way you would like. Or, write a plug-in to the current newsreader you are using which will do it the way you like (others, if the problem is a real one, may have already written one for you--search the net.)

No, there are no mothers here to take care of you, this in not like CW, it is not required you read these posts....

... get a clue, the format of newsgroups has changed, adapt or die ...

John

"Spike" <Aero.Spike@Technologies.invalid> wrote in message
news:s08me15iree48sp1m0p3uhbjtiicanbub9@4ax.com...
> kashe@sonic.net wrote:
>
>>On Mon, 25 Jul 2005 08:28:46 +0100, Spike
>><Aero.Spike@Technologies.invalid> wrote:
>>
>>>Ed Price wrote:
>>>
>>>>Obviously, if you don't take the
>>>>time to distill the OP's comments, then you bury your reply under his
>>>>verbiage. Perhaps one of the best arguments for editing is that you have to
>>>>think about what's important in the previous post. That allows you to focus
>>>>your reply.
>>>
>>>What an excellent philosophy.
>>>
>>>Perhaps the top-posters and non-editors are merely guilty of lack of
>>>focus and an ability to think.
>>>
>>
>>Or are just unwilling to trace over ground already many-times plowed.
>
> Or ploughed.

>
> One thing that top-posters fail to recognise is that not all ng users
> set their readers to order posts by thread. It is quite possible, with
> a suitable newsreader, to order posts by time and date, rather than
> subject.
>
> Unfortunately, those who merely bang the Reply key to top-post their
> answer frequently have the point to which they are replying way off
> the bottom of the screen, which it is not immediately obvious without
> scrolling down.
>
> Top-posting also encorages the lazy or incompetent to avoid properly
> trimming their posts.
>
> There are even those who used to trim and bottom-post who now top-post
> exclusively, but who quote the RFC as if it is some religious mantra
> in some form of self-justification.
>
> from
> Aero Spike

3739. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 17:38:31 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <NWOGe.70346$ro.16363@fed1read02>
Source record: 72355

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:9ac$42eb929b$97d55eb8$31586@ALLTEL.NET...
> Back in the day, we received traffic from the station in Jim Creek while
> submerged. They used a 13 mile array strung between 2 mountains. IIRC it
> was
> on 18KC. CW only as any frequency shift would have put the finals out of
> resonance. Much better methods today that remain classified.
>
> I know we could receive it when submerged in the Red Sea.
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11elvqvgjrhpk5c@corp.supernews.com...
>> I believe this method is still being used for communications to
>> submarines. It depends heavily on the very great skin depth and
>> relatively low attenuation in sea water at the VLF wavelengths used.
>>
>> The buried antennas I was referring to operate, as far as I know, with
>> normal field propagation through the air, not through the ground.
>>
>> So communication through the ground or even salt water is practical at
>> low frequencies. High frequency is another matter, though. But that
>> doesn't preclude using buried antennas for sky wave propagation.
>>
>> Roy Lewallen, W7EL
>
>

Did the Navy ever deploy the Long-Range Autonomous Homing Bottle?

--
Ed
WB6WSN
El Cajon, CA USA

3740. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 20:00:46 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcgm9f$c06$1@news.service.uci.edu>
Source record: 72356

Richard Harrison wrote:

> Jim Kelley wrote:
> "That`s because power doesn`t propagate, and hasten to add - neither do
> Poynting vectors."
>
> Words are not objects. They merely represent objects. We use
> abstractions for brevity and clarity. Even the best say: "--the Poynting
> vector or power density (watts per square meter)." See Kraus` 3rd
> edition of "Antennas" page 73, under "Power Patterns".

So I guess that must be where he talks about power and Poynting vectors
that pretend to be electromagnetic fields and propagate along waveguides?

73, ac6xg

3741. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 20:08:40 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcgmo9$c6g$1@news.service.uci.edu>
Source record: 72357

Richard Clark wrote:

> On Fri, 29 Jul 2005 16:58:29 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>>>It is quite evident that through the actions of the first interface,
>>>that there is less energy incident upon the second interface.
>>>Further, given that both interfaces operate with identical reflective
>>>and transmissive properties, it follows the second interface could not
>>>reflect enough to totally negate the reflections of the first.
>>
>>True for any one reflection.
>
>
> Hi Jim,
>
> And true for ALL accumulated reflections there after. Reflections do
> not add any energy to the cup when the first interface is draining it
> more quickly.
>

Yes, that was my point. You seemed to have momentarily overlooked that
detail.

> My analysis allowed ALL of the energy in the reflection from the
> second interface (0.098X) to combine with the first reflection
> (0.11X).

Single (first) reflection only.

> This total superposition was both more than generous, and at
> the same time very unlikely; and yet with this generous allowance
> there is still excess reflection from the first interface.

Your generosity is hardly the issue. Previously reflections are more to
the point.

> Hence for
> something less than total superposition of ALL energies, it hardly
> bodes a better yield in total cancellation - the energy just isn't
> there in the first place. 0.098X <> 0.11X is the simple economics of
> the balance.

Sounds good. It's wrong, but the sound of it is good nevertheless.

> As an optical engineer, I've dealt with the harsh reality of this myth
> of total reflection cancellation.

Failure can tend to make some people bitter. ;-)

> Basically these claims are for first year students where demanding too
> much inquiry would push them into switching majors to Business school.
> Simple optics with simple, ordinary glasses exhibit quite useful
> results, but they do not embody a proof. To anyone following the math
> of my presentation, it is quite obvious what WOULD tend towards a more
> complete cancellation - and such a subtle shift in the formula
> diverges only slightly from the choir book hymn. It's not that hard
> when the interface ratios drive the answer.

Another good sounding thing.

73, ac6xg

3742. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 20:11:51 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcgmu7$c6g$2@news.service.uci.edu>
Source record: 72358

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> Since you say that power superposes, we should expect power waves to
>> add and cancel just like voltage waves.
>
>
> Strawman Alert!!! Richard H. did NOT say power superposes.
> It is obvious that what he was disagreeing with was the
> statement: "You CANNOT ... even talk about the "power"
> of various reflections in the same media."

I think you should be allowed to talk about whatever you want, Cecil.
That sort of thing can be highly therapeutic. ;-)

73, ac6xg

3743. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 20:15:04 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcgn49cet1@news.service.uci.edu>
Source record: 72359

W5DXP wrote:

> Why don't you visit your local power company, call a meeting of their
> engineers, and inform them that there is no power flowing in their
> transmission lines? :-)

Are you talking about the guys with the clipboards, or the guys with the
hard hats?

73, ac6xg

3744. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 20:49:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <39pne1d7a5c8nvl41udc7866snbbicsib3@4ax.com>
Source record: 72360

On Sat, 30 Jul 2005 13:08:40 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:

>> Hence for
>> something less than total superposition of ALL energies, it hardly
>> bodes a better yield in total cancellation - the energy just isn't
>> there in the first place. 0.098X <> 0.11X is the simple economics of
>> the balance.
>
>Sounds good. It's wrong, but the sound of it is good nevertheless.

Hi Jim,

As the total energy returning from the second interface is 0.098X, not
0.11X, and not even all of that passes through the back of the first
interface, where do you come up with the remaining difference to
accomplish a complete cancellation?

Even if an infinite summation of ALL reflections kept any energy from
transiting the second interface (a generous allowance not likely to be
observed anywhere), then it cannot exceed what energy was initially
introduced into the system. With that generous allowance, the
infinite summation can only equal 0.098X which remains less than the
reflection from the first interface of 0.11X. Without that generous
allowance, it must be something less, which can only increase the
total, uncancelled reflection product. Either way, "total
cancellation" is not total.

73's
Richard Clark, KB7QHC

3745. monoband 20 into 20/15?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 21:00:36 UTC
From: Gary <gbelcas@comcast.net>
Message-ID: <ruydnTSswcDud3bfRVn-sQ@comcast.com>
Source record: 72361

anybody out there have experience adding traps to a hygain 20m longjohn
making a dual-bander??

gary

3746. Rohn 25G & Stuff FS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 22:51:33 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <8p0oe1hgvml61igimp6rltsdqb1q134hmk@4ax.com>
Source record: 72362

1. Rohn 25G tower, 89 feet consisting of one (1) top section with the two inch tube, seven (7) each ten (10) foot sections plus a nine (9) foot section where it was cut out of the roof pitch box. The tower is sound, no freeze cracks or blow outs. There is rust on about 30% of the tower. For PICK UP in Chesapeake, Virginia, along Rt. 17 just below Portsmouth. $180.00

2. One Rohn 25G Anti Twist Guy Clamp, has the three 18 inch solid pieces that the guy wire attaches to. Also for PICK UP in Chesapeake, Va. $10.00

ALL OF THE ABOVE can be picked up for $185.00

3. Commercial Made Heavy Duty 8 element Vertical Beam converted to 440 MHz, average SWR across 70 centimeter band is below 1.3: 1
$75 or Best Offer
4. Ninety nine (99) feet of Belden 9913 Coax w/ PL-259s (USED) $25.00
5. Three (3) each eight (8) foot Heavy Duty Screw Anchors(USED) $30.00

Some of these Items will be brought to the Berryville Virginia Hamfest, for a slight increase in the going price. I will sell items for quoted price if money sent before Berryville trip. Gas ain't Cheap!

3747. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 23:40:14 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <g51oe1hamen55m6keupsd9t0b0arubkv6m@4ax.com>
Source record: 72363

On Fri, 29 Jul 2005 20:04:13 -0700, "John Smith"
<assemblywizard@gmail.com> wrote:

>Wes:
>
>I had dropped the all important word "transistors" in reference to
>"millions... billions". I never dreamed anyone could be mistaken that
>someone was claiming that many osc's in a computer, but you never can
>tell about the CB'ers--they might think so!
>
>Here is a mess of stuff on clocks, osc's which are generally used in
>digital equip these days (and this is stuff I am used to,
>a decade old or better technology, probably two decades!):

A mess indeed.

>... it should be apparent mr. pierce is not
>here in (at least most) of this material:

Well, he's here:

http://www.mtron.com/pdf/eng_notes.pdf

(See Figure 8 and associated text.)

http://www.statek.com/new/pdf/tn30.pdf

http://www.statek.com/new/pdf/tn31.pdf

>Simple logic gate oscillator:
>http://www.it.lth.se/digp/PDF_files/oscillators.pdf

Thanks for making my point! "A better oscillator using inverter gates
is given in Figure 2." (This is a Pierce.)

>
>Design of op amp oscillators:
>http://focus.ti.com/lit/an/slyt164/slyt164.pdf

Does not apply. Earlier I said, "All sine wave oscillators, LC or
crystal, are basically the same circuit with the only variable being
the location of the rf common point."

These are not LC or crystal oscillators. The only place you might
find one of these in a modern radio is in the sidetone oscillator.

>
>CMOS oscillator:
>http://www.ee.washington.edu/circuit_archive/circuits/F_ASCII_Schem.html#ASCIISCHEM_004

Tinker Toy
>
>Clock divider:
>http://www.ee.washington.edu/circuit_archive/circuits/clockdiv.txt

Not an oscillator. You too busy writing to actually look at your
references?
>
>clock doubler:
>http://www.ee.washington.edu/circuit_archive/circuits/clockdoubler.html

Op cit.
>
>square wave to sine converter:
>http://www.ee.washington.edu/circuit_archive/circuits/square2sine.txt

Op cit.
>
>pdf on digital oscillators:
>http://online.physics.uiuc.edu/courses/phys405/fall04/P405_Labs/Lab2_TTL_Logic/Lab2_TTL_L
ogic.pdf

This is a college course?
>
>Computer project, using 7404 as a clock:
>https://www.cs.tcd.ie/Jeremy.Jones/3d2/3d2project.htm

Clearly, you didn't read this one.

3748. Re: Amateur question pools and answers...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 23:45:40 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <KiUGe.278$5P2.10180711@news.sisna.com>
Source record: 72365

Wes:

All of that exists on just a single chip these days, it is possible to have an
osc chip which is usable from 1Mhz-to-1Ghz and puts out an acceptable sine...

... or so my son informs me.

I took his word for it... the world has began to pass me by :(

John

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:g51oe1hamen55m6keupsd9t0b0arubkv6m@4ax.com...
> On Fri, 29 Jul 2005 20:04:13 -0700, "John Smith"
> <assemblywizard@gmail.com> wrote:
>
>>Wes:
>>
>>I had dropped the all important word "transistors" in reference to
>>"millions... billions". I never dreamed anyone could be mistaken that
>>someone was claiming that many osc's in a computer, but you never can
>>tell about the CB'ers--they might think so!
>>
>>Here is a mess of stuff on clocks, osc's which are generally used in
>>digital equip these days (and this is stuff I am used to,
>>a decade old or better technology, probably two decades!):
>
> A mess indeed.
>
>>... it should be apparent mr. pierce is not
>>here in (at least most) of this material:
>
>
> Well, he's here:
>
> http://www.mtron.com/pdf/eng_notes.pdf
>
> (See Figure 8 and associated text.)
>
> http://www.statek.com/new/pdf/tn30.pdf
>
> http://www.statek.com/new/pdf/tn31.pdf
>
>
>
>>Simple logic gate oscillator:

>>http://www.it.lth.se/digp/PDF_files/oscillators.pdf
>
> Thanks for making my point! "A better oscillator using inverter gates
> is given in Figure 2." (This is a Pierce.)
>
>>
>>Design of op amp oscillators:
>>http://focus.ti.com/lit/an/slyt164/slyt164.pdf
>
> Does not apply. Earlier I said, "All sine wave oscillators, LC or
> crystal, are basically the same circuit with the only variable being
> the location of the rf common point."
>
> These are not LC or crystal oscillators. The only place you might
> find one of these in a modern radio is in the sidetone oscillator.
>
>>
>>CMOS oscillator:
>>http://www.ee.washington.edu/circuit_archive/circuits/F_ASCII_Schem.html#ASCIISCHEM_004
>
> Tinker Toy
>>
>>Clock divider:
>>http://www.ee.washington.edu/circuit_archive/circuits/clockdiv.txt
>
> Not an oscillator. You too busy writing to actually look at your
> references?
>>
>>clock doubler:
>>http://www.ee.washington.edu/circuit_archive/circuits/clockdoubler.html
>
> Op cit.
>>
>>square wave to sine converter:
>>http://www.ee.washington.edu/circuit_archive/circuits/square2sine.txt
>
> Op cit.
>>
>>pdf on digital oscillators:
>>http://online.physics.uiuc.edu/courses/phys405/fall04/P405_Labs/Lab2_TTL_Logic/Lab2_TTL_
Logic.pdf
>
> This is a college course?
>>
>>Computer project, using 7404 as a clock:
>>https://www.cs.tcd.ie/Jeremy.Jones/3d2/3d2project.htm
>
> Clearly, you didn't read this one.
>

3749. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-30 23:58:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dch477$3ai$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72364

Roy. as you know, radio propagation through the ground follows exactly the same laws as propagation through anything else.

All is governed by the resistivity, permeability and permittivity of the medium, at a partcular frequency, and the geometry of the interfaces between different mediums.

The problem of finding solutions to paricular problems lies only in entering input data into a general purpose, number crunching computer program, which I'm sure versions of it already exist.

3750. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 00:04:15 UTC
From: Radio Active <me@munged.poo>
Message-ID: <1lydofhge3h1x.9zkca52e5x26.dlg@40tude.net>
Source record: 72366
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 22:28:09 GMT, NunYa Bidness wrote:

> On Sun, 24 Jul 2005 10:41:09 -0700, "John Smith"
> <assemblywizard@gmail.com> Gave us:
>
>>Some people have been sold the line that there is something leet about
>>bottom posting--obviously they haven't a clue... but even think they
>>fool others!
>
> Your an utter idiot.

His utter idiot what?

3751. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 00:08:59 UTC
From: Radio Active <me@munged.poo>
Message-ID: <cv7w5ovg02pd$.1v6er3hnoq3o3.dlg@40tude.net>
Source record: 72367
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sun, 24 Jul 2005 14:37:10 +0000, Jock. wrote:

> On Sun, 24 Jul 2005 09:50:34 -0400, Ham op <hamop@comcast.net> wrote:
>
>>I've used the internet since 1985 [DARPA net] and have yet to see the
>>11th commandment prohibiting top posting or forcing bottom posting.
>>
>>I prefer TOP POSTING. I've read the original message previously, it is
>>stored sequentially on my computer sorted by thread and date if I need a
>>refresher, and I don't have to scroll through a lot of attached garbage
>>to get to your meaningful or meaningless comments.
>>
>>TOP POSTING, IMO, provides much more efficient use of my time.
>
> What's so bloody important about your time?
>
> Don't top-post.
>
> 73 de Jock.

Don't be so anal-retentive. There will always be those who insist on
top-posting. If you don't like it, don't read their posts. You'll be
missing about half of the posts on usenet, but then we won't have to read
your repeated whinery about top-posters.

Ed

3752. Re: Underground Antenna Experiments on 160 meters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 00:26:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11eo6l7rr3mab93@corp.supernews.com>
Source record: 72368

Reg Edwards wrote:
> Roy. as you know, radio propagation through the ground follows exactly
> the same laws as propagation through anything else.

Sure. The only real differences among salt water, dirt, and air are the loss -- which is a big difference -- and propagation velocity.

> All is governed by the resistivity, permeability and permittivity of
> the medium, at a partcular frequency, and the geometry of the
> interfaces between different mediums.
>
> The problem of finding solutions to paricular problems lies only in
> entering input data into a general purpose, number crunching computer
> program, which I'm sure versions of it already exist.

NEC-4 can handle antennas and propagation in two media of infinite extent separated by an infinite plane boundary. Neither one has to be air. While this doesn't imitate some real situations very well, it can produce some good insights into propagation and the performance of antennas embedded in a medium other than air.

Roy Lewallen, W7EL

3753. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 00:30:17 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <uYUGe.281$R%2.10264800@news.sisna.com>
Source record: 72372

RA:

It starts out:

First they want bottom posting...
Next they want editing...
Next NO typos...
Next you have to agree with them...
Next you have to read it for them...

...

At some point, Nancy Regan pops in and restores sanity, by recommending, "Just say NO!"

John

"Radio Active" <me@munged.poo> wrote in message news:1lydofhge3h1x.9zkca52e5x26.dlg@40tude.net...
> On Sun, 24 Jul 2005 22:28:09 GMT, NunYa Bidness wrote:
>
>> On Sun, 24 Jul 2005 10:41:09 -0700, "John Smith"
>> <assemblywizard@gmail.com> Gave us:
>>
>>>Some people have been sold the line that there is something leet about
>>>bottom posting--obviously they haven't a clue... but even think they
>>>fool others!
>>
>> Your an utter idiot.
>
> His utter idiot what?

3754. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 02:20:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ec3664$1_1@spool9-west.superfeed.net>
Source record: 72369

Jim Kelley wrote:

> W5DXP wrote:
>> Why don't you visit your local power company, call a meeting of their
>> engineers, and inform them that there is no power flowing in their
>> transmission lines? :-)
>
> Are you talking about the guys with the clipboards, or the guys with the
> hard hats?

I've seen power engineers with clipboards and hardhats. Their
title is "Power Engineer". What will they think when you tell
them that power generators don't generate power, power transmission
lines don't transfer power, and power meters don't meter power?
They may all end up in a white coat because of you.

The rest of the world simply does not share your definition of
"power". Did you see my question? If the power associated with
an EM pulse is not in the pulse, where is it? A power meter
registers power during the pulse but nothing before and after
the pulse. The power was there during the pulse. Where was it
before the pulse arrived? Where did it go after the pulse left?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3755. 40 meters added to 5-band Yagi without increasing size or weight

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 02:42:18 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <w6adnceHF_g9p3HfRVn-sg@comcast.com>
Source record: 72370

If you haven't read about the "SPIDERBEAM" yet in QST for July 2005, you might want to check out a copy from the library, or join the "spiderbeam" Yahoo! group and read about the latest developments. The kit comes out of Germany www.spiderbeam.net , and is sold in the U.S. by www.thewireman.com .

So what's this about adding 40 meters? Let's take the basic 3-band Spiderbeam - - 3 elements on 20m, 3 elements on 15m and 4 elements on 10m - - no traps - - nice, huh? It turns out since everything is made of wire strung between fiberglass poles, we can connect the center of the 20m director to the center of the 20m reflector with a wire about 10m long and the overall result is a dipole with V-shaped capacitive hats at each end, resonant at about 6500 KHz. At 7150 KHz, the dipole has a measured inductive reactance of about 171 ohms, courtesy of my MFJ-260 Antenna Analyzer, and it would need about 130pf in series to resonate it. A balanced feed would require two 260pf capacitors. The manufacturer who discovered this resonance felt it best to connect the dipole to the center support plate to ground the center and feed the dipole with a "Gamma Match" configuration to control the feeding resistance at resonance. Further investigation kept the center ground but changed the feed to a balanced "Delta Match" to be compatible with the balanced feed to all the other band antennas. So that's it - - 40 meter dipole - - no increase in size, only by adding a total of 14 meter of bare wire - - one 50 ohm feed through a current balun - - 4 bands.

The Spiderbeam is also available in a 5 band kit adding 2 elements on 17m and 2 elements on 12m, which becomes a 6 band antenna with the 40m dipole. And the required 250pf 15KV capacitors (for full power operation) can be mounted in the weatherproof balun box, with two added terminals for the Delta Match wires. I found 6KV capacitors locally which seem to work okay with my rig's 200 watt maximum output.

Okay, so the added wire adds a little weight, but it's small. Enjoy!

73, Chuck W6PKP

3756. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 02:42:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ec3ba3$1_1@spool9-west.superfeed.net>
Source record: 72371

> As the total energy returning from the second interface is 0.098X, not
> 0.11X, ...

The total energy returning from the second interface is 0.125 watts.
Your solution is incorrect. Why don't you take a poll to see who
agrees with you?

> Even if an infinite summation of ALL reflections kept any energy from
> transiting the second interface (a generous allowance not likely to be
> observed anywhere), then it cannot exceed what energy was initially
> introduced into the system.

It cannot exceed the energy. It can certainly exceed the steady-state
source power (joules/sec) and it does. Some energy is sourced during
the transient stage that does not reach the load. It is stored in the
second medium as standing waves. The forward power in the first medium
is one watt with no reflections. The forward power in the second medium
is 1.125 watts. The reflected power in the second medium is 0.125 watts.
The forward power in the third medium is one watt with no reflections.

Have you never seen the forward power in a transmission line exceed
the source power? If the system is Z0-matched and the SWR on a
1/4WL transformer is 5.83:1, the steady-state forward power on the
1/4WL transformer is *double* the steady-state source power.

> Either way, "total cancellation" is not total.

In your n=1,2,4 example, reflected wave cancellation is total in
medium 1 (assuming a lossless system). If n2=sqrt(n1*n3), the
reflected wave cancellation is total.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3757. FYI

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 16:00:17 UTC
From: Sarco <shibley@no-spam.hotmail.com>
Message-ID: <Xns96A484502A723shibleynospamhotmail@216.196.97.142>
Source record: 72373

Finally!! A lot more antennas are going to be built :)

http://www.rac.ca/news/canada.htm#Industry%20Canada%20Introduces

3758. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 20:52:19 UTC
From: richardharrison@webtv.net
Message-ID: <11772-42ED3A03-245@storefull-3258.bay.webtv.net>
Source record: 72374

Jim Kelley wrote:
"That`s because power doesn`t propagate, I hasten to add - neither do Poynting vectors.:

Some world-class experts disagree with Jim. Here is a sample quotation using the words "power flow".

From E.M. Purcell writing about "Antenna Gain and Receiving Cross Section" on page 19 of "Radar System Engineering" edited by Louis M. Ridenour:
"If the transmitting antenna were to radiate energy isotropically-that is, uniformly in all directions-the power flow through unit area at a distance R, from the antenna could be found by dividing P, the total radiated power, by 4piRsquared."

Best regards, Richard Harrison, KB5WZI

3759. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-07-31 23:31:32 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42ed5f54$0$32198$39cecf19@news.twtelecom.net>
Source record: 72375
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Well, since we're being blunt, you can stick it where the sun don't
shine. I've been on the internet since before it was the commonly
available, and I think bottom posting is foolish, and wastes time.

And I am man enough to admit who I am.

Wimp.

tom
K0TAR

NunYa Bidness wrote:
> On Wed, 27 Jul 2005 19:34:31 GMT, Frank Turner-Smith G3VKI
> <g3vki@turner-smith.co.uk> Gave us:
>
>
>>NunYa Bidness wrote:
>>
>>>On Tue, 26 Jul 2005 20:06:46 -0400, "David.Shrader"
>>><W1MCE@comcast.net> Gave us:
>>>
>>>
>>>
>>>>In the words of that greatest american philosopher: "De Ja Vous, all
>>>>over again" --- Y. Berra
>>>>
>>>>It's time to let this issue die.
>>>>
>>>
>>>
>>> Top posting idiots BOTH of you!
>>
>>One, and possibly the only good thing about top posting is that it
>>pisses you off.
>
>
> Who said that I was pissed? I am merely declaring those retards
> that do top post what exactly they are... fucking abject idiots.
> Try again.

3760. Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 04:01:19 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1122867299.665025.44850@g47g2000cwa.googlegroups.com>
Source record: 72376

Hi Group,

I have a pi-network, or at least I believe it is a pi-network in my antenna tuner. It has two caps to ground and one in series inductor.

If I tune my SWR for 1:1 and go back and measure each value of the capacitors and inductor, is there a equation or computer program I can use these measured values to obtain my complex impedance at the input of the coax cable?

de KJ4UO

3761. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 04:55:08 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4e728$42edab6f$438df2d2$23603@ALLTEL.NET>
Source record: 72377

Arn't you going around your hindparts to get to your elbow?

Connect an MFJ259B or similar and measure at the coax.

Once these valuses are measured at the frequency of interest, you can determine from the tuners specs if you will be able to achieve a match. If you can already achieve a match isn't determining the value simply a neat mental exercise?

<pdrunen@aol.com> wrote in message
news:1122867299.665025.44850@g47g2000cwa.googlegroups.com...
> Hi Group,
>
> I have a pi-network, or at least I believe it is a pi-network in my
> antenna tuner. It has two caps to ground and one in series inductor.
>
> If I tune my SWR for 1:1 and go back and measure each value of the
> capacitors and inductor, is there a equation or computer program I can
> use these measured values to obtain my complex impedance at the input
> of the coax cable?
>
> de KJ4UO
>

3762. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 05:08:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <23bre1h0dr7fgq0jdfu4m35k695hcs82vf@4ax.com>
Source record: 72378

On 31 Jul 2005 21:01:19 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
wrote:

>Hi Group,
>
>I have a pi-network, or at least I believe it is a pi-network in my
>antenna tuner. It has two caps to ground and one in series inductor.
>
>If I tune my SWR for 1:1 and go back and measure each value of the
>capacitors and inductor, is there a equation or computer program I can
>use these measured values to obtain my complex impedance at the input
>of the coax cable?

You ought to be able to do it from first principles, the computation
is not that difficult.

Some of the issues include your estimate of the value of the
capacitors, the value of inductance, and the Q of the inductor. You
could try to form a value for those by substitution of some known
capacitors and "matching up" a known load, working back to estimate C,
L, then use those values to solve the unknown case. The accumulated
error might render the answer of little value.

One program that springs to mind that solves a pi network is in the
Hamcalc suite, but IIRC, it treats all components as ideal (ie
lossless). Reg Edwards has another that you could play with, and IIRC,
it does allow you to specify unloaded Q of the inductor.

Have a play, you have nothing to lose and everything to learn!

Owen
--

3763. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 05:23:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lnbre19nsdvehl6htpmqnud7dl9dm22d2i@4ax.com>
Source record: 72379

On 31 Jul 2005 21:01:19 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
wrote:
>I have a pi-network, or at least I believe it is a pi-network in my
>antenna tuner. It has two caps to ground and one in series inductor.
>
>If I tune my SWR for 1:1 and go back and measure each value of the
>capacitors and inductor, is there a equation or computer program I can
>use these measured values to obtain my complex impedance at the input
>of the coax cable?

Hi OM,

Good time to learn the Smith Chart. The components in that network
are simply arcs moving the presented Z to the transformed Z (50Ohms).
Unfortunately this is easier said than done - or understood. Like all
skills, time and practice are necessary.

As for understanding, the Smith Chart will bring that quicker than any
software - which simply dumps an answer in your lap, the quality or
actual utility of which is as much a mystery as the problem you wanted
to solve. There are a multitude of network settings that will satisfy
the matching and software or equations will do little more than say
"yup, that setting does exactly as you observed." Not very filling,
but when you do the same thing on the Chart, you can see where you are
going before you get there. This means you also have the choice of
choosing the best path (shortest). It would be a rare piece of code
that could do that - from a mountain of formulas.

73's
Richard Clark, KB7QHC

3764. Re: Short dipole - inductor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 05:31:56 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96A4E54A62959spectrumhogstarbandn@207.106.93.175>
Source record: 72380

Just a followup on my original post under this subject.

I completed my short 75M dipole (Inverted V) and am very pleased with it.

Went to the hardware store, bought a piece of cheap bathroom plumbing material, 1.5" diameter and very light. (Lighter than PVC)

Bought some #18 stranded hookup wire.

Found an old spool of Telephone indoor station wire (#22).

I wound my 1.5" dia coils with the telephone station wire. Worked very well. I wanted a 50 uH coil so as it turned out, 50 turns, close spaced, did the job. (about 25 turns per inch).

I positioned the coils about 6/10 of the distance down my dipole legs; the total length of each leg came out to 24 feet. The feedpoint is at the top of my 23 foot cheap telescopic RV flag pole. This antenna tuned right up to freq... 3950KHz in my case. SWR was about 1.6. Seems usable between 3900 and 4000. If I want to go lower, I just hang a couple alligator clips with 6" wire off the ends to lower resonance.

Project was easy, and whole thing is light, small, easy to erect, and works well, considering size. Works well with my FT-817.

Thanks to those who made replies to my post.

Ed K7AAT

3765. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 08:32:43 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42eddbcc.32020002@news.crosslink.net>
Source record: 72381

On 31 Jul 2005 21:01:19 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
wrote:

>Hi Group,
>
>I have a pi-network, or at least I believe it is a pi-network in my
>antenna tuner. It has two caps to ground and one in series inductor.
>
>If I tune my SWR for 1:1 and go back and measure each value of the
>capacitors and inductor, is there a equation or computer program I can
>use these measured values to obtain my complex impedance at the input
>of the coax cable?
>
>de KJ4UO
>

I would caution you in regard to measuring the values of the C's and
the L of your pi network. If you actually have an RF bridge or other
test equipment suitable for accurately making such measurements, you
are indeed lucky. Even with such equipment, you should realize that
you will have to disconnect certain components from one another in the
tuner in order to actually make the measurements on each of the three
components. You are also probably going to have to remove some of
those components entirely in order to make the measurements with
reasonably short leads. For anything below 10 MHz, the lead length
will not be a significant factor.

Assuming that you are successful in making the measurements with good
accuracy, the necessary calculations require a good knowledge of
complex numbers and complex arithmetic - much of which is adequately
explained in the Amateur Radio Handbook.

My suggestion at that point would be to simply post your results,
including the frequency of measurement, to this forum and request that
one of us make the calculations for you. I'm sure many, including
myself, would be glad to do that for you. It's the quickest way, by
far.

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

3766. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 12:21:59 UTC
From: chuck <nospam@nospam.net>
Message-ID: <HtoHe.12141$oZ.6170@newsread2.news.atl.earthlink.net>
Source record: 72382

If he has an RF bridge, couldn't he simply terminate the tuner's input
with 50 ohms resistive and measure the impedance at the tuner's output?
Well, the conjugate, anyway. I'm trying to imagine the benefit of doing
it that way, rather than simply measuring the impedance at the
transmission line directly.

Chuck,
NT3G

W9DMK (Robert Lay) wrote:
> On 31 Jul 2005 21:01:19 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
> wrote:
>
>
>>Hi Group,
>>
>>I have a pi-network, or at least I believe it is a pi-network in my
>>antenna tuner. It has two caps to ground and one in series inductor.
>>
>>If I tune my SWR for 1:1 and go back and measure each value of the
>>capacitors and inductor, is there a equation or computer program I can
>>use these measured values to obtain my complex impedance at the input
>>of the coax cable?
>>
>>de KJ4UO
>>
>
>
> I would caution you in regard to measuring the values of the C's and
> the L of your pi network. If you actually have an RF bridge or other
> test equipment suitable for accurately making such measurements, you
> are indeed lucky. Even with such equipment, you should realize that
> you will have to disconnect certain components from one another in the
> tuner in order to actually make the measurements on each of the three
> components. You are also probably going to have to remove some of
> those components entirely in order to make the measurements with
> reasonably short leads. For anything below 10 MHz, the lead length
> will not be a significant factor.
>
> Assuming that you are successful in making the measurements with good
> accuracy, the necessary calculations require a good knowledge of
> complex numbers and complex arithmetic - much of which is adequately
> explained in the Amateur Radio Handbook.
>
> My suggestion at that point would be to simply post your results,

> including the frequency of measurement, to this forum and request that
> one of us make the calculations for you. I'm sure many, including
> myself, would be glad to do that for you. It's the quickest way, by
> far.
>
>
> Bob, W9DMK, Dahlgren, VA
> Replace "nobody" with my callsign for e-mail
> w9dmk<at>crosslink<dot>net
> http://www.qsl.net/w9dmk
> http://zaffora/f2o.org/W9DMK/W9dmk.html
>

3767. Re: Rohn 25G & Stuff FS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 13:41:39 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <1j9se11jjhignc58kvbfa23b7ulakegis4@4ax.com>
Source record: 72383

The heavy duty ground anchors have been sold.

On Sat, 30 Jul 2005 18:51:33 -0400, Sonny Hood <wrhood@cox.net> wrote:

>1. Rohn 25G tower, 89 feet consisting of one (1) top section with the
>two inch tube, seven (7) each ten (10) foot sections plus a nine (9)
>foot section where it was cut out of the roof pitch box. The tower is
>sound, no freeze cracks or blow outs. There is rust on about 30% of
>the tower. For PICK UP in Chesapeake, Virginia, along Rt. 17 just
>below Portsmouth. $180.00
>
>2. One Rohn 25G Anti Twist Guy Clamp, has the three 18 inch solid
>pieces that the guy wire attaches to. Also for PICK UP in Chesapeake,
>Va. $10.00
>
>ALL OF THE ABOVE can be picked up for $185.00
>
>3. Commercial Made Heavy Duty 8 element Vertical Beam converted to 440
>MHz, average SWR across 70 centimeter band is below 1.3: 1
>$75 or Best Offer
>4. Ninety nine (99) feet of Belden 9913 Coax w/ PL-259s (USED) $25.00
>5. Three (3) each eight (8) foot Heavy Duty Screw Anchors(USED) $30.00
>
>Some of these Items will be brought to the Berryville Virginia
>Hamfest, for a slight increase in the going price. I will sell items
>for quoted price if money sent before Berryville trip. Gas ain't
>Cheap!

3768. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 14:38:55 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <8kcse15s511hpcohv28f9kr6hcmu8is9rd@4ax.com>
Source record: 72384

On Sun, 31 Jul 2005 15:52:19 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Jim Kelley wrote:
>"That`s because power doesn`t propagate, I hasten to add - neither do
>Poynting vectors.:
>
>Some world-class experts disagree with Jim. Here is a sample quotation
>using the words "power flow".
>
>From E.M. Purcell writing about "Antenna Gain and Receiving Cross
>Section" on page 19 of "Radar System Engineering" edited by Louis M.
>Ridenour:
>"If the transmitting antenna were to radiate energy isotropically-that
>is, uniformly in all directions-the power flow through unit area at a
>distance R, from the antenna could be found by dividing P, the total
>radiated power, by 4piRsquared."
>
>Best regards, Richard Harrison, KB5WZI

Richard, in addition to Ridenour, I quote from Reflections 1 and 2, Chapter 8, "A semantic problem with the term "power flow" also fuels the erroneous belief that reflected power is fictitious. This brings us to the question, "Does power flow?" To help us understand the answer, let's examine an analogy that involves current.
When we talk about "current flow," we take the meaning for granted. However, does current really flow? The basic electricity sections of engineering textbooks (also The ARRL Handbook) say that current does not flow--charge flows. Current is defined as the quantity of charge flowing past a point per unit time. However, once we leave basic electricity and move on to circuit analysis, the term "current flow" is used almost exclusively--and
yet we know exactly what is meant.
The same problem exists with the term "power flow." Engineering textbooks define power as the "quantity of energy passing a point per unit time." Thus, power does not flow--energy flows. However, except when reciting the definition of power, textbooks and journals on wave propagation use the term "power flow" almost exclusively, with only an occasional use of "energy flow." As with "current flow," we know what is meant because of the common usage which generally overshadows the strict definition."
Perhaps this explanation will satisfy Jim, but perhaps not. We'll see.

Walt, W2DU

3769. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 15:42:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ee440b$1_2@spool9-west.superfeed.net>
Source record: 72385

Richard Harrison wrote:
> "If the transmitting antenna were to radiate energy isotropically-that
> ... -the power flow through unit area at a > distance R, ...

What virtually every engineer means when he says, "power flow",
is, "the power (energy per unit-time) associated with the energy
flow". Knowing Jim, he would also probably argue that the sun
doesn't rise - that instead, the earth rotates. However, most
weather forcasts on TV gives the times for sunrise and sunset.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3770. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 16:13:34 UTC
From: richardharrison@webtv.net
Message-ID: <25693-42EE4A2E-803@storefull-3254.bay.webtv.net>
Source record: 72386

Cecil, W5DXP wrote:
"What is it about, "...all "lost" reflected intensity will appear as enhanced intensity in the transmitted beam." that you guys don`t understand?"

A quarter-wave intermediate impedance line section can perfectly match different resistances at its ends.

When a match exists at the end of a line, there is no discontinuity and the line appears as if infinite. There is no reflection from an impedance match.

It`s a multiplicity of waves which seem gratuitous.

Best regards, Richard Harrison, KB5WZI

3771. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 16:36:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bhjse19thpvqocv9k2v0q901gm6p8krasf@4ax.com>
Source record: 72387

On Mon, 1 Aug 2005 11:13:34 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>It`s a multiplicity of waves which seem gratuitous.
Amen brother!

Hi Richard,

This statement you respond to is one of those attempts to draw the topic away from its focus to prove another point of match which humorously was going to be proven with the original topic.

Now, if that sounds confusing, it is simply par for the course in how we got here. And to extend the metaphor for par, we started out Bowling for Dollars and have now ended up putting on the back nine.

Anyway, the optical analogue has proven to be a bust when I demonstrated that reflection products do persist. This is not the place to hash over that again. If you wish, you can consult my original posting and the follow-ons for details.

73's
Richard Clark, KB7QHC

3772. Re: Can you solve this 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 17:35:26 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.01.17.35.18.945126@gmail.com>
Source record: 72388

Cecil:

I just consulted my tea leaves, they say you will be properly forgiven by gentlemen, they don't indicate where to find the gentlemen at, unfortuantly.

Also, I expect there is an "error factor" in the data I received from the leaves today. Running out of tea leaves, I had to substitute marijuana leaves, I improvised a method of using them by first smoking the leaves and then reading their ashes.

Gawd I am hungry, got a sudden case of the munchies here! <frown>

John

On Sat, 23 Jul 2005 07:20:57 -0500, Cecil Moore wrote:

> Richard Clark wrote:
>> It bears re-visiting to wrap this up, but I have no doubt it will make
>> any impression on your future claims.
>
> My mistake was a semantic one. I didn't know the definition
> of "glare" and used the word improperly. I appologized for
> that mistake as soon as I realized it. Because of the
> incorrect definition, I probably inadvertenly made some
> false statements about "glare". If you replace the word
> "glare" with "reflections" in all my postings, the claims
> are still valid, given the boundary conditions. One semantic
> mistake does not overturn the laws of physics.
>
>> Tomorrow we continue the brutal examination.
>
> Since glare (defined properly) has nothing to do with
> transmission lines, it is off topic for this thread.
> This thread has always been about reflections. My
> mistake was in thinking that "glare" and "reflections"
> were synonyms.

3773. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 17:42:09 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dclmte$ri2$1@news.service.uci.edu>
Source record: 72390

Richard Harrison wrote:

> Jim Kelley wrote:
> "That`s because power doesn`t propagate, I hasten to add - neither do
> Poynting vectors.:
>
> Some world-class experts disagree with Jim. Here is a sample quotation
> using the words "power flow".
>
> From E.M. Purcell writing about "Antenna Gain and Receiving Cross
> Section" on page 19 of "Radar System Engineering" edited by Louis M.
> Ridenour:
> "If the transmitting antenna were to radiate energy isotropically-that
> is, uniformly in all directions-the power flow through unit area at a
> distance R, from the antenna could be found by dividing P, the total
> radiated power, by 4piRsquared."
>
> Best regards, Richard Harrison, KB5WZI

There's nothing wrong with calculating the power per unit area at any point in a transmission line. I'm sorry if I gave some other impression. The problem I have is with believing that the calculated value propagates as if it were an electromagnetic field. The Poynting vector is useful for making calculations, but it not a useful tool for explaining the behavior of natural phenomenon.

73, ac6xg

3774. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 17:45:05 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcln2u$ri2$2@news.service.uci.edu>
Source record: 72389

Cecil Moore wrote:

> Richard Harrison wrote:
>
>> "If the transmitting antenna were to radiate energy isotropically-that
>> ... -the power flow through unit area at a > distance R, ...
>
>
> What virtually every engineer means when he says, "power flow",
> is, "the power (energy per unit-time) associated with the energy
> flow". Knowing Jim, he would also probably argue that the sun
> doesn't rise - that instead, the earth rotates. However, most
> weather forcasts on TV gives the times for sunrise and sunset.

Yea, somebody around here once said that I would probably step out of
the shower to take a pee. To that I say why would anyone step into it
to take one? ;-)

73, ac6xg

3775. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 17:49:42 UTC
From: richardharrison@webtv.net
Message-ID: <8747-42EE60B6-1033@storefull-3252.bay.webtv.net>
Source record: 72391

Walt, W2DU wrote:
"A semantic problem with the term "Power Flow" also fuels the erroneous belief that reflected power is fictitious."

Another world-class expert has agreed that power flows.

Energy may or may not flow. It is the accumulation of flows that you pay for on your monthly electric bill. Power is the rate of delivering energy (doing wotk), so it can`t stand still. No power flow, no work.

Take it from W2DU. Reflections are important. Reflections occur at discontinuities.

To the extent that voltage and current are in-phase, they mean real power. Zo is resistive in a practical r-f transmission line. Incident and reflected waves both propagate on the line with their individual voltages and currents locked in-phase. The sum of incident and reflected waves can`t be relied upon to indicate power, but infividually each wave can indicate true power.

The reflected wave interferes with the incident wave to produce standing waves. These represent the impedance distribution along the line. They do not represent variation of power in the wave in eather direction.

Best regards, Richard Harrison, KB5WZI

3776. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 18:07:01 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1122919621.487488.236540@f14g2000cwb.googlegroups.com>
Source record: 72392

I have an MFJ-269 which I can measure the input to the coax and get a direct impedance measurement.

Then I would put the tuner in line with the MFJ-269 as the source and adjust the tuner until I see 50 + j0 on the MFJ.

I would follow by measuring the pi-network components also using the MFJ as it will measure values at the desired RF frequency.

I would keep the signal frequency low so that stray inductance and capacitance do not affect the measurement.

What I would like to do is see by using the values I obtain, calculate the cable load and compare with MFJ direct measurement.

I will review the handbook to see if there is a standard equation knowing the values and assume that the Q of the inductor is greater than 10.

All in the fun of the hobby.

de KJ4UO

3777. need help understanding this broad band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 18:49:32 UTC
From: larry <larya@rogers.com>
Message-ID: <-M6dnXhJ4bWj8nPfRVn-qg@rogers.com>
Source record: 72393

Greetings

I have been reading about this new? broadband antenna... It seems mainly used in the short wave receiver domain but I also find newly licenced amateur also using it...

It is a spin-off of the 'end fed' antenna but seems to have some point blurred in the translation.....

The antenna is constructed as follows....

A random length of wire any where from 40 feet to 140 feet.. The end nearest the house is connected to one end of the high impedance end of a 9 to1 balun.. The other end of this end of the balun is connnected to ground...

The arguement is that because the high impedance end is connected to ground that the antenna is quieter...less noise...

The low impedance end of the balun is connected, via a length of 50 ohm cable, to the receiver... or transceiver...

The other end of the cable is connecte to the receiver or transceiver and needs to use an antenna coupler.....

My question.. is this a valid antenna....

Personally, I don't think so...

I beleive that because the antenna comes to the radio in 50 ohm coad but still needs an antenna coupler the swr must be high therefore the antenna in not valid...

Someone suggested that this design is a spin-off of an end fed dipole or zepp ...but I disagree...I think there are a few points missing for it to qualify as an end fed dipole or zepp...

Larry ve3fxq

anyways.. any thoughts?...

3778. Re: need help understanding this broad band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 19:04:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5asse1p97kve9dgcb30dtfm396oe4cjci8@4ax.com>
Source record: 72394

On Mon, 1 Aug 2005 14:49:32 -0400, "larry" <larya@rogers.com> wrote:

>I beleive that because the antenna comes to the radio in 50 ohm coad but
>still needs an antenna coupler the swr must be high therefore the antenna in
>not valid...

Hi Larry,

An antenna coupler for either SWL or Ham use is distinctly indicated
for this "broad band" antenna. It is only broad band if it can be
distinctly used across a broad band (this maybe someone's idea of 5KHz
or 50MHz).

>Someone suggested that this design is a spin-off of an end fed dipole or
>zepp ...but I disagree...I think there are a few points missing for it to
>qualify as an end fed dipole or zepp...

Well, shy a few points is not distinctive enough to dismiss the design
from the end fed dipole or Zepp categories. Suffice it to say that at
some frequencies, and with the right matching, you could not
distinguish this antenna from them (insofar as results go).

73's
Richard Clark, KB7QHC

3779. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 19:11:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11essvk3dfhne4@corp.supernews.com>
Source record: 72395

That's a worthwhile educational exercise.

You might find a single equation, but it gets a bit messy. However, it's easily done in a few steps, if you're comfortable with complex arithmetic. I use an HP48GX calculator for this sort of thing, since it readily and directly handles complex numbers.

Call the capacitor on the input side of the network C1 and the on the output side C2, and the inductor L. First calculate the reactance of each of them at the frequency of interest, Xc1, Xl, and Xc2. You'll find formulas for those in the Handbook. Note that Xc1 and Xc2 will be negative and Xl will be positive.

First calculate the parallel combination of the load impedance (Zl) and Xc2. That will be the impedance seen looking toward the load from the output side of the inductor: Za = Zl || Xc2 = (Rl + jXl) || (jXc2), where Xc2 is negative. The combined impedance of two impedances Z1 and Z2 in parallel are 1 / ((1/Z1) + (1/Z2)) = (Z1 * Z2) / (Z1 + Z2).

Now add Xl to your result to find the Z looking into the input side of the inductor: Zb = Za + jXl. (If the inductor has appreciable loss, use Zl = Rl + jXl instead of just jXl.) Finally, calculate the parallel combination of that impedance and the impedance of the input capacitor to find the impedance looking into the network: Zin = Zb || jXc1, remembering that Xc1 will be negative.

You can of course combine all this into one equation, but it gets pretty big. I prefer to do it in steps, one of the reasons being that I understand exactly what I'm doing at each step rather than just dumping numbers into an equation and hoping that what comes out is right. A Smith Chart gives you an even better feel for what's going on, and this would be a good opportunity to get acquainted with that valuable tool. You might solve the problem both arithmetically and by using the Smith Chart and compare results.

If you aren't comfortable with complex arithmetic, the equations get considerably more complicated since you'll have to deal with the resistance and reactance separately. If that's the case, I second the advice already given that you either solve it using a Smith Chart or consider just letting one of the other folks on this group do the calculation for you.

Roy Lewallen, W7EL

pdrunen@aol.com wrote:
> I have an MFJ-269 which I can measure the input to the coax and get a
> direct impedance measurement.

>
> Then I would put the tuner in line with the MFJ-269 as the source and
> adjust the tuner until I see 50 + j0 on the MFJ.
>
> I would follow by measuring the pi-network components also using the
> MFJ as it will measure values at the desired RF frequency.
>
> I would keep the signal frequency low so that stray inductance and
> capacitance do not affect the measurement.
>
> What I would like to do is see by using the values I obtain, calculate
> the cable load and compare with MFJ direct measurement.
>
> I will review the handbook to see if there is a standard equation
> knowing the values and assume that the Q of the inductor is greater
> than 10.
>
>
>
>
> All in the fun of the hobby.
>
>
> de KJ4UO
>

3780. Cushcraft MA5B

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 20:22:33 UTC
From: Bill KB3GUN <kb3gun@swronline.com>
Message-ID: <42ee8477$0$5360$ec3e2dad@news.usenetmonster.com>
Source record: 72396

Anyone here using the MA-5B? I'm running a 360ft loop at 60 feet now (thru a tuner) and I'd like to get something more directional for DX. I was told by others that a vertical would be good for DX but I had an MFJ vertical before and I wasn't too fond of it. 15, 17 and 20M are my bands of choice.

A 7ft boom with the longest element around 17ft. For a small beam, is this a good choice?

73!
Smitty kb3gun

3781. Re: need help understanding this broad band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 20:25:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcm0g4$s9s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72397

Greetings to you Larry,

Any length of wire is a 'valid' antenna. i.e., it is sure to work.

If it's a short wire it will have sharply resonant frequencies and will not be broadband.

If it's long enough, and its normal attenuation is high enough, it behaves as a transmission line and its input impedance will eventualy converge on the line Zo. Depending on height above ground, on wire diameter, and on the general environment, Zo will be roughly resistive between 500 and 600 ohms.

You then have your wideband antenna. A 9-to-1 matching transformer reduces the impedance to about 60 ohms which is very nicely between 50 and 75 ohms. So you can take your pick of what impedance receiver you use.

If the antenna is not very long in terms of wavelengths, or even if it is, it can be terminated, at the remote end, to ground with a 560-ohm resistor and then the antenna will have an input impedance of about 560 ohms all the way from DC up to many, many MHz. Which is wideband enough to keep everybody happy.

Unfortunately the antenna's radiation pattern is many-lobed in the direction of the wire. When terminated it is highly uni-directional which is unlikely to be of much use to most people. It will nearly always be in the wrong direction. Which is why it is not very popular except for static, specialised, point-to-point LF communications.

It's really quite simple. Try not to be distracted by over-complicating experts on reflected and non-reflected power and standing waves.

Actually there is a name for such a wideband antenna. But I can't think of it at the moment. It may be the early symptoms of Alzeimers.

Reg, G4FGQ

3782. Re: need help understanding this broad band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 20:28:13 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <gAvHe.170$Mo.149@bignews5.bellsouth.net>
Source record: 72398

Where did you read about this antenna ?
Receivers can withstand a lot more swr than transmitters, so it should work fine for swl.
Compared to< no antenna>, its great.
It might work better if you had an antenna tuner between the antenna and the radio.

"larry" <larya@rogers.com> wrote in message news:-M6dnXhJ4bWj8nPfRVn-qg@rogers.com...
> Greetings
>
> I have been reading about this new? broadband antenna... It seems mainly
> used in the short wave receiver domain but I also find newly licenced
> amateur also using it...
>
> It is a spin-off of the 'end fed' antenna but seems to have some point
> blurred in the translation.....
>
> The antenna is constructed as follows....
>
> A random length of wire any where from 40 feet to 140 feet.. The end nearest
> the house is connected to one end of the high impedance end of a 9 to1
> balun.. The other end of this end of the balun is connnected to ground...
>
> The arguement is that because the high impedance end is connected to ground
> that the antenna is quieter...less noise...
>
> The low impedance end of the balun is connected, via a length of 50 ohm
> cable, to the receiver... or transceiver...
>
> The other end of the cable is connecte to the receiver or transceiver and
> needs to use an antenna coupler.....
>
> My question.. is this a valid antenna....
>
> Personally, I don't think so...
>
> I beleive that because the antenna comes to the radio in 50 ohm coad but
> still needs an antenna coupler the swr must be high therefore the antenna in
> not valid...
>

> Someone suggested that this design is a spin-off of an end fed dipole or
> zepp ...but I disagree...I think there are a few points missing for it to
> qualify as an end fed dipole or zepp...
>
> Larry ve3fxq
>
> anyways.. any thoughts?...
>
>

3783. Re: 10 meter dish antenna on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 20:39:48 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7LvHe.174$Mo.16@bignews5.bellsouth.net>
Source record: 72399

A dish for 10-meters ???? WHOA!! Can we cut it down for CB cuz I want to
put 2 of those bad boys on my pickup.
one to face the traffic and the other to face the folks I just run over cuz
I couldn't see in front because the dish blocked my view. will it take 5kw
and a swinging modulator? yeee haw.

"Hap Griffin" <lgriffin@sc.rr.com> wrote in message
news:RBzGe.54559$oj4.1279316@twister.southeast.rr.com...
> If you're interested in EME or radio-astronomy, there is a 10 meter C-band
> uplink dish available on ebay at
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5794042849&ssPageName=ADME:B:EF:US:1 .
>
> Hap Griffin
> WZ4O
>
>

3784. Re: 10 meter dish antenna on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 20:59:55 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <f0c3b$42ee8d52$438df2d2$18022@ALLTEL.NET>
Source record: 72400

Just for grins, I took my XYL and drove by where it is setting. It is
located about 8 miles from my house. Told her I was going to bid on it on
E-Bay and put it in the front yard.

I can't repeat her response here :>)

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:7LvHe.174$Mo.16@bignews5.bellsouth.net...
> A dish for 10-meters ???? WHOA!! Can we cut it down for CB cuz I want to
> put 2 of those bad boys on my pickup.
> one to face the traffic and the other to face the folks I just run over
cuz
> I couldn't see in front because the dish blocked my view. will it take
5kw
> and a swinging modulator? yeee haw.
>
>
> "Hap Griffin" <lgriffin@sc.rr.com> wrote in message
> news:RBzGe.54559$oj4.1279316@twister.southeast.rr.com...
> > If you're interested in EME or radio-astronomy, there is a 10 meter
C-band
> > uplink dish available on ebay at
> >
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5794042849&ssPageName=ADME:B:EF:US:1 .
> >
> > Hap Griffin
> > WZ4O
> >
> >
>
>

3785. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 21:09:16 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <42ee8cb3.1220174@news.crosslink.net>
Source record: 72401

On Mon, 01 Aug 2005 12:21:59 GMT, chuck <nospam@nospam.net> wrote:

>If he has an RF bridge, couldn't he simply terminate the tuner's input
>with 50 ohms resistive and measure the impedance at the tuner's output?
>Well, the conjugate, anyway. I'm trying to imagine the benefit of doing
>it that way, rather than simply measuring the impedance at the
>transmission line directly.
>
>Chuck,
>NT3G

I will break my own rule of not responding to responders and answer
your question - otherwise you would assume that I was ignoring you.

If I might answer a question with a question - why do you think that a
tuner would give up its settings so easily? It's a an interesting
speculation. First, let me clarify what I mean by a Tuner's input
terminal and its output terminal. Considering that a tuner handles
transmitted power in one direction only, we should refer to its
"input" side as the port that connects to the transmitter and its
"output" port as the one connecting to the antenna or feedline.

That agrees with what I interpret your post as suggesting. Therefore,
a 50 ohm termination at the "input" side "should" produce a measured
impedance at the "output" port that is, as you say, the complex
conjugate of the impedance seen looking into the transmission line. I
haven't done a rigorous analysis of that configuration, but it
certainly seems reasonable and correct. It would, indeed be an optimum
way of inferring the impedance that the original poster is trying to
measure.

I see nothing wrong with your suggestion and would recommend it.

I also see no reason to do any of that as it would be just as easy to
measure the transmission line input impedance directly - as you said.

It's amazing how much good stuff comes out of the woodwork when people
are interested in their hobby and interested in learning.

Thanks,

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

3786. Re: Cushcraft MA5B

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 21:13:44 UTC
From: Bert Craig <wa2si@optonline.netNOSPAM>
Message-ID: <ggwHe.8844$_R1.3310@fe11.lga>
Source record: 72402

"Bill KB3GUN" <kb3gun@swronline.com> wrote in message
news:42ee8477$0$5360$ec3e2dad@news.usenetmonster.com...
> Anyone here using the MA-5B? I'm running a 360ft loop at 60 feet now (thru
> a tuner) and I'd like to get something more directional for DX. I was told
> by others that a vertical would be good for DX but I had an MFJ vertical
> before and I wasn't too fond of it. 15, 17 and 20M are my bands of choice.
>
> A 7ft boom with the longest element around 17ft. For a small beam, is this
> a good choice?
>
> 73!
> Smitty kb3gun

Hi Smitty,

IMHO, the TGM Hybrid-Quad is a better choice. I have the six band 2 el.
model.

http://www3.sympatico.ca/tgmc/

Hope this helps. Take care, GL es...

--
Vy 73 de Bert
WA2SI
FISTS #9384/CC #1736
QRP ARCI #11782

3787. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 21:35:48 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcm4jh$4oc$1@news.service.uci.edu>
Source record: 72403

Cecil Moore wrote:

> If the power associated with
> an EM pulse is not in the pulse, where is it?

According to definition, the 'effect' of power is something which can be realized at a place where energy either is being transferred from, or transferred to. The amount of effect is proportional to the rate at which energy is transfered. But power is not the thing which is being transferred from one place to another. Often times though we want to know the rate at which energy is being transferred to or from one place to another, and there are mechanisms we can use to measure things that manifest themselves in proportion to that quantity. But some folks forget that it's just a tool for making accurate predictions about things, and start to believe some odd things about the behavior of nature. One must be careful not to mistake a physical quantity for a physical entity.

73, ac6xg

3788. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 21:52:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcm5ij$c96$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72404

If the tuner can cope, there's not much interest in what the input impedance of the transmission line is.

What IS of interest is what impedance terminates the remote end of the transmission line. Usually this is the antenna. And usually this is impractical to measure directly.

From the input impedance of the transmission line, Program ZL_ZIN computes the input impedance of the antenna (or whatever may be at the other end). It is also necessary to know the length of the line and its Zo.

Download in a few seconds program ZL_ZIN from website below and run immediately,
----
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

3789. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 22:35:24 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcm839$6cu$1@news.service.uci.edu>
Source record: 72405

Walter Maxwell wrote:

> The same problem exists with the term "power flow." Engineering
> textbooks define power as the "quantity of energy passing a point per
> unit time." Thus, power does not flow--energy flows. However, except
> when reciting the definition of power, textbooks and journals on wave
> propagation use the term "power flow" almost exclusively, with only an
> occasional use of "energy flow." As with "current flow," we know what
> is meant because of the common usage which generally overshadows the
> strict definition."
> Perhaps this explanation will satisfy Jim, but perhaps not. We'll see.
>
> Walt, W2DU
>

Hi Walt,

I am familiar with the common usage of the expression 'power flow' and of course the Poynting vector. I've been explaining that "energy flows - not power" on this newsgroup for 4 years and have gotten nothing but grief for it. I think it will be more interesting to see whether your explanation will satisfy the others.

73, ac6xg

3790. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 22:42:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcm8gbrqu1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72406

With sufficient accuracy, knowing its maximum value, it is possible to estimate the value of an air-spaced variable capacitor setting just by looking at it.

Similarly, the value of a coil can be calculated by counting the number of turns and guessing its length and diameter. The calculation is simple enough.

I've done it dozens of times. It gets you into the right ballpark. Which is quite accurate enough for amateur radio purposes. There's no need for rocket science.

I can't understand the abysmal state of education in simple arithmetic in our primary schools. We should import the kids who inhabit the sewers of Rio de Janerio and other American cities and employ them as arithmetic teachers. It would be more economic than culling by armed police.

Reg, G4FGQ

3791. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-01 23:56:05 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <p6dte1lih6g6nd401gvmbf018qgn28ghm8@4ax.com>
Source record: 72407

On Mon, 01 Aug 2005 21:09:16 GMT, W9DMK<nobody@crosslink.net> (Robert Lay) wrote:

>On Mon, 01 Aug 2005 12:21:59 GMT, chuck <nospam@nospam.net> wrote:
>
>>If he has an RF bridge, couldn't he simply terminate the tuner's input
>>with 50 ohms resistive and measure the impedance at the tuner's output?
>>Well, the conjugate, anyway. I'm trying to imagine the benefit of doing
>>it that way, rather than simply measuring the impedance at the
>>transmission line directly.
>>
>>Chuck,
>>NT3G
>
>I will break my own rule of not responding to responders and answer
>your question - otherwise you would assume that I was ignoring you.
>
>If I might answer a question with a question - why do you think that a
>tuner would give up its settings so easily? It's a an interesting
>speculation. First, let me clarify what I mean by a Tuner's input
>terminal and its output terminal. Considering that a tuner handles
>transmitted power in one direction only, we should refer to its
>"input" side as the port that connects to the transmitter and its
>"output" port as the one connecting to the antenna or feedline.
>
>That agrees with what I interpret your post as suggesting. Therefore,
>a 50 ohm termination at the "input" side "should" produce a measured
>impedance at the "output" port that is, as you say, the complex
>conjugate of the impedance seen looking into the transmission line. I
>haven't done a rigorous analysis of that configuration, but it
>certainly seems reasonable and correct. It would, indeed be an optimum
>way of inferring the impedance that the original poster is trying to
>measure.
>
>I see nothing wrong with your suggestion and would recommend it.

Let's pretend that the antenna (load) Z = 49 +j0. Let's also pretend that the "tuner" consists of a series 1 ohm resistor.

Looking into the input of the "tuner" we measure 50 +j0. Pretty good, huh?

Terminating the input of the tuner with 50 +j0 and looking from the other end we measure 51 +j0. Whoops.

Best have a lossless tuner to play this game.

>
>I also see no reason to do any of that as it would be just as easy to
>measure the transmission line input impedance directly - as you said.
>
>It's amazing how much good stuff comes out of the woodwork when people
>are interested in their hobby and interested in learning.
>
>Thanks,
>
>Bob, W9DMK, Dahlgren, VA
>Replace "nobody" with my callsign for e-mail
>w9dmk<at>crosslink<dot>net
>http://www.qsl.net/w9dmk
>http://zaffora/f2o.org/W9DMK/W9dmk.html

3792. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 00:35:46 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11etfv34338nh30@corp.supernews.com>
Source record: 72408

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dcm8gbrqu1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> With sufficient accuracy, knowing its maximum value, it is possible to
> estimate the value of an air-spaced variable capacitor setting just by
> looking at it.
>
> Similarly, the value of a coil can be calculated by counting the
> number of turns and guessing its length and diameter. The calculation
> is simple enough.
>
> I've done it dozens of times. It gets you into the right ballpark.
> Which is quite accurate enough for amateur radio purposes. There's no
> need for rocket science.
>
> I can't understand the abysmal state of education in simple arithmetic
> in our primary schools. We should import the kids who inhabit the
> sewers of Rio de Janerio and other American cities and employ them as
> arithmetic teachers. It would be more economic than culling by armed
> police.
> ----
> Reg, G4FGQ
>

I credit the California and Oklahoma Public Schools for my mathematical
illiteracy. Went to school in Bakersfield in 1947, got straight A cause the
math they taught in the 9th grade was the math I learned in Oklahoma in the
4th grade. Returned to Oklahoma in the middle of the school year and was
placed in a 2nd semester
Algebra class. Teacher was a coach who spent most of his class time working
with (on?) a female student whom he later married. Even if I had been truly
interested I'd never have been able to catch up. I was passed on even though
I was totally incompetent in Algebra.(this was before social passing became
common in the public schools)They should have adjusted my schedule and had
me start at the beginning Algebra semester even if it required some class
juggling the following year. Perhaps they thought they were doing me a
favor, or maybe they just didn't realize how retro the California school
math was.

Harold
KD5SAK

3793. How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 00:43:34 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <xMSdnQsEIcAoXHPfRVn-3Q@speakeasy.net>
Source record: 72409

I need your advice, as I have never worked with open wire lines before.
I need to feed many different antennas with open wire line and need to run the feeline from each about 200 feet from the back pasture to the shack. I don't want to walk out 200 feet and throw knife switches to chose the antenna/feedline I want to feed, so I plan to run separate 600 ohm open feeds for each antenna all the way to the shack.
The problem is I don't know what the effect is or how to handle the multiple open wire feed lines, as they will be parallel for probably 150-200 feet. I haven't found anything in literature describing this.
For instance, will they interact? how far do you space the feedlines from one another? If I have 4 feedlines, can I stack them vertically or horizontally one foot apart from each other? How much is enough separation? What other precautions do I need? Need they be twisted if they are not near anything other than the other feed lines?
Any help is appreciated.
73,
Greg, N6GK

3794. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 01:58:34 UTC
From: chuck <nospam@nospam.net>
Message-ID: <erAHe.8960$6f.8928@newsread3.news.atl.earthlink.net>
Source record: 72410

Good point, Wes. A reminder that a 1:1 swr at the input of a lossy tuner
is not proof of a perfect match at the output!

Chuck
NT3G

Wes Stewart wrote:

>
>
> Let's pretend that the antenna (load) Z = 49 +j0. Let's also pretend
> that the "tuner" consists of a series 1 ohm resistor.
>
> Looking into the input of the "tuner" we measure 50 +j0. Pretty good,
> huh?
>
> Terminating the input of the tuner with 50 +j0 and looking from the
> other end we measure 51 +j0. Whoops.
>
> Best have a lossless tuner to play this game.
>
>
>
>

3795. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 03:02:49 UTC
From: richardharrison@webtv.net
Message-ID: <25693-42EEE259-873@storefull-3254.bay.webtv.net>
Source record: 72411

Jim Kelley wrote:
"That`s because power doesn`t propagate, and hasten to add - neither do Poynting vectots."

One could make a long list of serious authors who freely treat power as moving energy. I namrd Ktaus, Ridenour, Purcell, and Walter Maxwell.

Terman was another world-class expert who was unafraid of the word "power". On page 76 of his 1955 edition he wrote:
"Alternatively, a load impedance may be matched to a source of power in such a way as to make the power delivered to the load a maximum (The power delivered to the load under these conditions is termed the available power of the power source). This is accomplished by making the load impedance the conjugate of the generator impedance as defined by Thevenin`s theorem. That is, the load impedance must have the same magnitude as the generator impedance, but the phase angle of the load is the negative of the phase angle of the generator impedance."

I have not yet seen a copy of "Reflections", but would bet that W2DU says the same thing, perhaps in fewer and shorter words.

Best regards, Richard Harrison, KB5WZI

3796. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 05:06:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ef0082$1_1@spool9-west.superfeed.net>
Source record: 72412

Richard Clark wrote:
> Anyway, the optical analogue has proven to be a bust when I
> demonstrated that reflection products do persist. This is not the
> place to hash over that again. If you wish, you can consult my
> original posting and the follow-ons for details.

But in your "proof", you superposed powers which is a no-no.
When 111.1mW interfers with 87.78mW, the result is not
(111.1-87.78). Since the associated E-fields are 180
degrees out of phase, the power equation must take the
interference into account.

Pref1 = 111.1mW + 87.78mW - 2* sqrt(111.1*87.78)

Pref1 = 111.1mW + 87.78mW - 197.5mW = 1.38mW

You subtract 87.78 from 111.1 and get 23.32. That value is
almost 17 times too high. All your math after that is invalid.
All except 1.38mW of reflections are canceled by that first
internal reflection. Your value of 23.32 is simply wrong.

RF engineers usually convert to voltage, perform the superposition,
and then calculate the total power. One doesn't have that luxury
when dealing with light so the power (irradiance) equations must
be used to obtain the correct results.
--
73, Cecil http://www.qsl.net/w5dxp

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3797. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 05:18:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ef0333$1_1@spool9-west.superfeed.net>
Source record: 72413

Jim Kelley wrote:
> I am familiar with the common usage of the expression 'power flow' and
> of course the Poynting vector. I've been explaining that "energy flows -
> not power" on this newsgroup for 4 years and have gotten nothing but
> grief for it. I think it will be more interesting to see whether your
> explanation will satisfy the others.

Would you agree that the amount of energy passing a point
in a unit-time is power?
--
73, Cecil http://www.qsl.net/w5dxp

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3798. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 05:27:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ef055c$1_2@spool9-west.superfeed.net>
Source record: 72414

Richard Harrison wrote:

> Jim Kelley wrote:
> "That`s because power doesn`t propagate, and hasten to add - neither do
> Poynting vectots."
>
> One could make a long list of serious authors who freely treat power as
> moving energy. I namrd Ktaus, Ridenour, Purcell, and Walter Maxwell.

You can add Walter Johnson, Simon Ramo, and John Whinnery to
that list. "Power in the reflected wave" is commonly mentioned.
--
73, Cecil http://www.qsl.net/w5dxp

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3799. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 05:39:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ef080a$1_1@spool9-west.superfeed.net>
Source record: 72415

Jim Kelley wrote:
> I am familiar with the common usage of the expression 'power flow' and
> of course the Poynting vector. I've been explaining that "energy flows -
> not power" on this newsgroup for 4 years and have gotten nothing but
> grief for it.

You are technically correct but it doesn't matter. The Sun
will rise tomorrow even if the Sun is fixed in space. I'll
even bolster your argument. RF energy moves at the speed
of light in the transmission line. The power meter is
standing still compared to the transmission line. If the
power meter were moving with the energy at the speed of
light, it wouldn't work at all. Does that help? :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3800. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 07:27:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcn784$sd6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72416

The difference between teaching reading and writing and teaching arithmetic is that practical uses for reading and writing are immediately apparent to children. Whereas teachers of arithmetic, and then maths, fail to show children the many interesting and practical uses of the subject.

It's lack of imagination on the part of teachers - and laziness. They have no interest in the subject themselves. They are themselves victims of poor teaching and of the system which selects them to be teachers.

In the UK it can be traced back to ignorance on the part of Ministers of Education.

It is a great pity children are not given the opportunity to appreciate the beauty in Mathematics. In England, first year engineering university students have to spend the first 6 months being taught what they should have learned at the age of 14. Including how to read and write.

Just prior to a General Election (of Members of Parliament) in the UK I once asked a prospective MP what seven nines were. He didn't know! Yet there was the possibility he could end up as the Chancellor of the Exchequer or even as a Minister of Education.

As the meeting was being held in a public house the prospective MP changed the subject and bought me a pint of beer. Presumably in a futile attempt at bribery for a vote.

Eventually he lost his deposit (of £500) for failing to collect the necessary small minimum number of votes.

Reg.

3801. 40 meter pirate radio,1710.am qrp need ant ideas.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 08:01:16 UTC
From: dvd567@webtv.net
Message-ID: <6792-42EF284C-1106@storefull-3274.bay.webtv.net>
Source record: 72417

need ant for my station thinking about a very long wire ant i have lots of acres so it dont matter listen out for my station playing all kinds of music no black crap only pure classic rock and southern rock ozzie stuff like that and preaching from rev moore where i go to church i almost off my meds the radio helps me out tv freaks me out only will will run qrp about 5 watts or less maybe once a month i will broadcast anyway good luck on dxing hope u here me funny farm radio

3802. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 08:18:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ngaue1hjod7h1nrbnfal003njs3mmublmm@4ax.com>
Source record: 72418

On Mon, 1 Aug 2005 17:43:34 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>If I have 4 feedlines, can I stack them vertically or
>horizontally one foot apart from each other? How much is enough separation?
>What other precautions do I need? Need they be twisted if they are not near
>anything other than the other feed lines?
>Any help is appreciated.

Hi Greg,

Feed lines that are terminated in balanced loads are self isolating.
The balance of the load is with respect to earth and is discussed
under the heading of Common Modality. So your problems are load
defined, not line defined. Naturally there is a continuum of linkage
between lines even in this best of all possible worlds. That
continuum spans from considerable-to-miniscule and it is, as you have
guessed, dependant upon spacing.

What constitutes considerable may be miniscule for another and I will
leave that determination up to you, as you have offered no limits nor
quantitative concerns. If you need a rule of thumb, keep all lines at
least 10 times their own pair-spacing apart. That is, if a twin lead
has 1 inch spacing between the conductors, keep that twin lead 10
inches from a similar feedline.

There are no doubt authoritative reports to offer a justification for
this rule, or any other offered. I would expect this would come from
Laport's work (which several correspondents here have copies of).

73's
Richard Clark, KB7QHC

3803. Re: need help understanding this broad band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 09:25:07 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <TZGHe.227$9U3.1@newssvr24.news.prodigy.net>
Source record: 72419

Larry,
Is it a 'valid' antenna? Ah, yes, with several 'buts' that
'add to' / 'subtract from' that 'validity'. The 'biggy' questions
are what length and what frequency of use? Those will determine
the input impedance of the thing, and who says that a 9:1 is
going to be the 'right' impedance transormation ratio? That
9:1 thingy is basically taking the place of a tuner, which would
make the thing a much more 'valid' multiband antenna, but not
necessarily a very broadbanded one.
So while there is some validity, I don't think I'd say it was
totally valid, broadbanded, or multibanded. Not bad advertising
though...
'Doc

3804. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 10:47:45 UTC
From: Radio Active <me@munged.poo>
Message-ID: <8h3tsdxiyj1c.1ojtvvnymy1y1$.dlg@40tude.net>
Source record: 72420

On Sat, 30 Jul 2005 17:30:17 -0700, John Smith wrote:

> RA:
>
> It starts out:
>
> First they want bottom posting...
> Next they want editing...
> Next NO typos...
> Next you have to agree with them...
> Next you have to read it for them...
>
> ...
>
> At some point, Nancy Regan pops in and restores sanity, by recommending, "Just
> say NO!"

Someone has to come in and restore sanity. Oh my, I sorta top posted...

>
> "Radio Active" <me@munged.poo> wrote in message
> news:1lydofhge3h1x.9zkca52e5x26.dlg@40tude.net...
>> On Sun, 24 Jul 2005 22:28:09 GMT, NunYa Bidness wrote:
>>
>>> On Sun, 24 Jul 2005 10:41:09 -0700, "John Smith"
>>> <assemblywizard@gmail.com> Gave us:
>>>
>>>>Some people have been sold the line that there is something leet about
>>>>bottom posting--obviously they haven't a clue... but even think they
>>>>fool others!
>>>
>>> Your an utter idiot.
>>
>> His utter idiot what?

3805. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 12:52:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ef6db9$1_2@spool9-west.superfeed.net>
Source record: 72421

pdrunen@aol.com wrote:
> I have a pi-network, or at least I believe it is a pi-network in my
> antenna tuner. It has two caps to ground and one in series inductor.
>
> If I tune my SWR for 1:1 and go back and measure each value of the
> capacitors and inductor, is there a equation or computer program I can
> use these measured values to obtain my complex impedance at the input
> of the coax cable?

I went through this exercise about 15 years ago using my MFJ-949E.
I assumed linearity for the capacitor setting numbers on the front
panel, i.e. setting 10 = 208 uf. I don't remember what I assumed
for the minimum capacitance zero setting, maybe 10%?. Using a dummy
load and setting the caps near half scale, I then calculated the
different values of inductance for the various switch settings.

For instance, with C1 set to 3.1, C2 set to 3.2, a match was
achieved on 3.5 MHz with the coil set at J. A match was
achieved on 4.0 MHz with the coil set at I. I calculated
52uH for position J and 40 uH for position I.

I wrote a BASIC program that took the switch settings as inputs
and output the estimated impedance looking into the feedline.
I don't know how accurate it was, but it gave me a useful
ballpark value. Ballpark values are often good enough to
indicate what needs to be done next. Shortly after the above
exercise, I bought an MFJ antenna analyzer.

What I found to be a more useful technique is to adjust the length
of the feedline until a purely resistive value is achieved. That
happens at the current minimum points on the SWR circle. An MFJ
antenna analyzer will read that resistive value. Knowing that
resistive value, the Z0 and loss characteristics of the feedline,
and the length of the feedline allows a fairly accurate calculation
of the antenna feedpoint impedance which, at my QTH, agrees closely
with the feedpoint impedance predicted by EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

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3806. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer R...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 13:22:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42ef749c$1_1@spool9-west.superfeed.net>
Source record: 72422

Jim Kelley wrote:

> Cecil Moore wrote:
>> If the power associated with
>> an EM pulse is not in the pulse, where is it?
>
> According to definition, the 'effect' of power is something which can be
> realized at a place where energy either is being transferred from, or
> transferred to.

Please define "transfer" in this context. The IEEE Dictionary
defines "transfer capability - the capacity and ability of a
transmission line to allow for the reliable MOVEMENT OF ELECTRIC
POWER from an area of supply to an area of need." Emphasis mine.

> But power is not the thing which is being transferred from one place
> to another.

Jim, we can use your logic to solve most of the racial problems
in the USA. Black Americans are not black. White Americans are
not white. These statements can be proven beyond any doubt by
using a light spectrometer.

Therefore, since there are no black people and no white people,
there can exist no clash between black culture and white culture.
All racial problems are therefore declared solved. Next problem?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3807. Tonna F9FT Satellite Yagi Antenna 20899

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 14:34:08 UTC
From: Neven Mrduljas <Neven.Mrduljas@fina.hr>
Message-ID: <1122993348.325118@internet.fina.hr>
Source record: 72423

Does anybody have experience with this antenna in satellite operation? If yes, can this antenna be used for local operation on 2m because angle between planes of 2m and 70 cm antennas and ground surface is cca 45degrees? Does anybody know the reason this antenna is tilted for cca 45 degrees? All experiences with this antenna are welcome!

73 de Neven, 9A5YY

3808. Re: 40 meter pirate radio,1710.am qrp need ant ideas.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 16:28:43 UTC
From: drwxr-xr-x <nobody@frontier.net>
Message-ID: <slrndev7pr.27st.bit-bucket@shell.config.com>
Source record: 72424

On Tue, 2 Aug 2005 03:01:16 -0500, Pirate Radio wrote:
> need ant for my station thinking about a very long wire ant i have lots
> of acres so it dont matter listen out for my station playing all kinds
> of music no black crap only pure classic rock and southern rock ozzie
> stuff like that and preaching from rev moore where i go to church i
> almost off my meds the radio helps me out tv freaks me out only will
> will run qrp about 5 watts or less maybe once a month i will broadcast
> anyway good luck on dxing hope u here me funny farm radio

Isn't it frightening when the hopelessly illiterate are found playing
with sophisticated technology?

3809. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 16:45:17 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <xqNHe.177484$tt5.93925@edtnps90>
Source record: 72275

"greg knapp 5" <gknapp@freshrain.org> wrote in message
news:xMSdnQsEIcAoXHPfRVn-3Q@speakeasy.net...
>I need your advice, as I have never worked with open wire lines before.
> I need to feed many different antennas with open wire line and need to run
> the feeline from each about 200 feet from the back pasture to the shack. I
> don't want to walk out 200 feet and throw knife switches to chose the
> antenna/feedline I want to feed, so I plan to run separate 600 ohm open
> feeds for each antenna all the way to the shack.
> The problem is I don't know what the effect is or how to handle the
> multiple open wire feed lines, as they will be parallel for probably
> 150-200 feet. I haven't found anything in literature describing this.
> For instance, will they interact? how far do you space the feedlines from
> one another? If I have 4 feedlines, can I stack them vertically or
> horizontally one foot apart from each other? How much is enough
> separation? What other precautions do I need? Need they be twisted if
> they are not near anything other than the other feed lines?
> Any help is appreciated.
> 73,
> Greg, N6GK

Hi Greg:

I have just run a free space NEC 2 model of a pair of horizontally positioned 6" wide, 600 ohm, transmission lines, vertically separated by 12". The model was run from 29 to 31 MHz. On 30 MHz , with both lines terminated in 600 ohms the isolation was about 39 dB. With both lines terminated in 6,000 ohms the isolation improved to 66 dB. The actual range of impedances will be much higher, and complex, but it does give an idea of the order of magnitude of the isolation. The calculation is based on the ratio of the peak currents observed.

Hope this helps,

73,

Frank (VE6CB)

3810. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 17:26:26 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcoac2$7m4$1@news.service.uci.edu>
Source record: 72276

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> I am familiar with the common usage of the expression 'power flow' and
>> of course the Poynting vector. I've been explaining that "energy flows
>> - not power" on this newsgroup for 4 years and have gotten nothing but
>> grief for it. I think it will be more interesting to see whether your
>> explanation will satisfy the others.
>
>
> Would you agree that the amount of energy passing a point
> in a unit-time is power?

Or even more to the point: Do you believe the 'amount of motorcycle'
passing a point in a unit time is speed? :-)

The units speak plainly enough for themselves. Why do you ask me?
You're the one who always turns these things into a religious argument
over 'belief' systems.

73, ac6xg

3811. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 17:28:09 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcoaf8$7m4$2@news.service.uci.edu>
Source record: 72277

Cecil Moore wrote:

> Richard Harrison wrote:
>
>> Jim Kelley wrote:
>> "That`s because power doesn`t propagate, and hasten to add - neither do
>> Poynting vectots."
>>
>> One could make a long list of serious authors who freely treat power as
>> moving energy. I namrd Ktaus, Ridenour, Purcell, and Walter Maxwell.
>
>
> You can add Walter Johnson, Simon Ramo, and John Whinnery to
> that list. "Power in the reflected wave" is commonly mentioned.

Proving what, exactly? That power is "in" a reflected wave?

ac6xg

3812. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 18:04:49 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcock0$8q1$1@news.service.uci.edu>
Source record: 72278

Cecil Moore wrote:

> You are technically correct but it doesn't matter.

You just spent 4 years vehemently arguing the exact opposite point of
view. It sure seemed to matter to you - before yesterday.

> RF energy moves at the speed
> of light in the transmission line. The power meter is
> standing still compared to the transmission line. If the
> power meter were moving with the energy at the speed of
> light, it wouldn't work at all. Does that help? :-)

Might be the seed of an idea there for a real nerdy Saturday morning
science fiction cartoon. "Cecil and the Power Meters"

Now that's the kind of humor that actually merits a smiley face! :-)

ac6xg

3813. Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 19:03:11 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <QrPHe.35144$Eo.25151@fed1read04>
Source record: 72279

I'm looking for an antenna connector with the following idea:

I want to mount a spare 2m/440 mobile antenna on my race bike and use my FT-51R ht on my belt with the deluxe remote mic on the handlebars.

Problem is that if I wreck, the radio will want to stay on my belt but the coax going to the antenna won't! The mic connector will pull out but the antenna connector (BNC) will stay until something breaks. If I wreck, I may need my HT to call for assistance (it's happened once before) I need an inepensive 50 ohm pair of connectors that will slide apart when pulled. Kinda like a push on F fitting but for 50 ohm RG-58 cable.

The only ones I've thought of are the F fitting or an RCA connection. Anybody know the impedance of an RCA plug?

Are there push on BNC or 259 connectors? Cost matters.

--
Just my 2¢... 73 es gd dx de Ken KG¢WX
Grid EM17ip, Flying Pigs #-1055
Proud builder & owner of Elecraft K2 #4913

3814. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 19:10:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t0hve1l8mtnm59mjle811mg2mlsg2tp7uk@4ax.com>
Source record: 72280

On Tue, 2 Aug 2005 14:03:11 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>Are there push on BNC or 259 connectors? Cost matters.

Hi Ken,

Just take a jeweler's saw to the BNC bayonet lock and cut slots at the
detent. Or buy type N male connector and discard the screw collar.

73's
Richard Clark, KB7QHC

3815. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 19:16:36 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <61060$42efc6b5$438df2d2$8341@ALLTEL.NET>
Source record: 72281

I told Lance, and now I will tell you, if you get in my way in your little faggoty outfits and goofy helmets, I will run your ass over. Don't worry, I will call 911 and let them know where to pick up your traffic blocking body.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:QrPHe.35144$Eo.25151@fed1read04...
> I'm looking for an antenna connector with the following
> idea:
>
> I want to mount a spare 2m/440 mobile antenna on my
> race bike and use my FT-51R ht on my belt with the
> deluxe remote mic on the handlebars.
>
> Problem is that if I wreck, the radio will want to stay on
> my belt but the coax going to the antenna won't! The mic
> connector will pull out but the antenna connector (BNC)
> will stay until something breaks. If I wreck, I may need my
> HT to call for assistance (it's happened once before) I
> need an inepensive 50 ohm pair of connectors that will slide
> apart when pulled. Kinda like a push on F fitting but for
> 50 ohm RG-58 cable.
>
> The only ones I've thought of are the F fitting or an RCA
> connection. Anybody know the impedance of an RCA plug?
>
> Are there push on BNC or 259 connectors? Cost matters.
>
> --
> Just my 2�... 73 es gd dx de Ken KG�WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>
>

3816. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 19:19:45 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcoh0gaot1@news.service.uci.edu>
Source record: 72283

Reg Edwards wrote:

> Just prior to a General Election (of Members of Parliament) in the UK
> I once asked a prospective MP what seven nines were. He didn't know!

He probably thought you were using Cockney rhyming slang, and wasn't
familiar with the expression 'seven nines'.

The correct answer to your querry was of course: extremely pure.

:-)

ac6xg

3817. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 19:20:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11evhrske04g81f@corp.supernews.com>
Source record: 72282

I suggest filing the bumps off a BNC female. Without them, the connector halves should fit snugly enough to stay together unless you tug on it. You could use a little tape, a weak rubber band, or something similar to hold it together a little more firmly while riding but which would break away fairly easily.

If you try to use an RCA plug, the connections to it -- where you have to split to coax conductors apart -- will cause a much greater impedance bump than the connector itself. Since your communications seem to be short range, you should be able to get by with a pretty bad impedance bump, though. It would probably have the least effect if it's close to the rig rather than at the antenna end of the coax.

Roy Lewallen, W7EL

Ken Bessler wrote:
> I'm looking for an antenna connector with the following
> idea:
>
> I want to mount a spare 2m/440 mobile antenna on my
> race bike and use my FT-51R ht on my belt with the
> deluxe remote mic on the handlebars.
>
> Problem is that if I wreck, the radio will want to stay on
> my belt but the coax going to the antenna won't! The mic
> connector will pull out but the antenna connector (BNC)
> will stay until something breaks. If I wreck, I may need my
> HT to call for assistance (it's happened once before) I
> need an inepensive 50 ohm pair of connectors that will slide
> apart when pulled. Kinda like a push on F fitting but for
> 50 ohm RG-58 cable.
>
> The only ones I've thought of are the F fitting or an RCA
> connection. Anybody know the impedance of an RCA plug?
>
> Are there push on BNC or 259 connectors? Cost matters.
>
> --
> Just my 2ï¿½... 73 es gd dx de Ken KGï¿½WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>
>

3818. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 21:01:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42efe01e$1_1@spool9-west.superfeed.net>
Source record: 72284

Jim Kelley wrote:
> The units speak plainly enough for themselves. Why do you ask me?
> You're the one who always turns these things into a religious argument
> over 'belief' systems.

Jim, there are more references on my side than on yours.
Your definitions are esoteric to say the least. My
definitions are mainstream IEEE and agree with many
authors of RF books and power industry standards.

"There is no before and after!" (a quote from one of
your emails to me). Would you mind proving that assertion?
--
73, Cecil http://www.qsl.net/w5dxp

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3819. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 21:04:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42efe0ed$1_2@spool9-west.superfeed.net>
Source record: 72285

Jim Kelley wrote:

> Cecil Moore wrote:
>> You can add Walter Johnson, Simon Ramo, and John Whinnery to
>> that list. "Power in the reflected wave" is commonly mentioned.
>
> Proving what, exactly? That power is "in" a reflected wave?

Proving that "Power in the reflected wave" is common
usage in RF engineering. You are not going to get the
human race to stop using the word, "sunrise", no
matter what you say or do.
--
73, Cecil http://www.qsl.net/w5dxp

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3820. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 21:20:31 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <jrRHe.6792$pp.3990@bignews1.bellsouth.net>
Source record: 72286

OR - tape your feet and hands to the bike so it will stay with you.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11evhrske04g81f@corp.supernews.com...
> I suggest filing the bumps off a BNC female. Without them, the connector
> halves should fit snugly enough to stay together unless you tug on it.
> You could use a little tape, a weak rubber band, or something similar to
> hold it together a little more firmly while riding but which would break
> away fairly easily.
>
> If you try to use an RCA plug, the connections to it -- where you have
> to split to coax conductors apart -- will cause a much greater impedance
> bump than the connector itself. Since your communications seem to be
> short range, you should be able to get by with a pretty bad impedance
> bump, though. It would probably have the least effect if it's close to
> the rig rather than at the antenna end of the coax.
>
> Roy Lewallen, W7EL
>
> Ken Bessler wrote:
> > I'm looking for an antenna connector with the following
> > idea:
> >
> > I want to mount a spare 2m/440 mobile antenna on my
> > race bike and use my FT-51R ht on my belt with the
> > deluxe remote mic on the handlebars.
> >
> > Problem is that if I wreck, the radio will want to stay on
> > my belt but the coax going to the antenna won't! The mic
> > connector will pull out but the antenna connector (BNC)
> > will stay until something breaks. If I wreck, I may need my
> > HT to call for assistance (it's happened once before) I
> > need an inepensive 50 ohm pair of connectors that will slide
> > apart when pulled. Kinda like a push on F fitting but for
> > 50 ohm RG-58 cable.
> >
> > The only ones I've thought of are the F fitting or an RCA
> > connection. Anybody know the impedance of an RCA plug?
> >
> > Are there push on BNC or 259 connectors? Cost matters.
> >
> > --
> > Just my 2¢... 73 es gd dx de Ken KG¢WX

> > Grid EM17ip, Flying Pigs #-1055
> > Proud builder & owner of Elecraft K2 #4913
> >
> >

3821. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 21:27:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42efe662$1_2@spool9-west.superfeed.net>
Source record: 72287

Jim Kelley wrote:

> Cecil Moore wrote:
>> You are technically correct but it doesn't matter.

> You just spent 4 years vehemently arguing the exact opposite point of
> view.

BS! Please don't confuse my ability to act as devil's advocate
with what are my basic concepts. I have told you multiple times
before over any number of years that I agree with you that power
is energy passing a point or plane in a unit of time. That can
be easily proven to be true with a little Google research. I'm
old-fashioned enough to believe that joules/sec needs a reference
measuring point or plane. That's what I was taught in the 50's and
that's the concept that I still carry around in my head.

What I have said lately is that any number of knowledgeable
engineers and authors have an expanded definition of power.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3822. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 22:02:30 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcoqhm$f5q$1@news.service.uci.edu>
Source record: 72288

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> You are technically correct but it doesn't matter.
>
>
>> You just spent 4 years vehemently arguing the exact opposite point of
>> view.
>
>
> BS!

Now you're vehemently arguing about whether you argued or not.

> What I have said lately is that any number of knowledgeable
> engineers and authors have an expanded definition of power.

That was never in dispute. You argued that power propagates and
reflects, and I explained that it doesn't. Now you're behaving like a
child.

ac6xg

3823. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-02 23:46:18 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f005cb$0$32200$39cecf19@news.twtelecom.net>
Source record: 72289

Reg Edwards wrote:

> Just prior to a General Election (of Members of Parliament) in the UK
> I once asked a prospective MP what seven nines were. He didn't know!

Interesting that the same things have very different meanings.

In my current business 7 nines would mean roughly 3.16 seconds. Can you
tell me why?

tom
K0TAR

3824. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 00:05:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <ITTHe.217$7B3.6926411@news.sisna.com>
Source record: 72290

the square root of seven nines is 3162.27...

if the figure above were microseconds would be ~3.162 seconds.

John

"Tom Ring" <news0002@taring.org> wrote in message
news:42f005cb$0$32200$39cecf19@news.twtelecom.net...
> Reg Edwards wrote:
>
>> Just prior to a General Election (of Members of Parliament) in the UK
>> I once asked a prospective MP what seven nines were. He didn't know!
>
> Interesting that the same things have very different meanings.
>
> In my current business 7 nines would mean roughly 3.16 seconds. Can you tell
> me why?
>
> tom
> K0TAR
>

3825. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 00:17:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <W2UHe.218$uA3.6917164@news.sisna.com>
Source record: 72291

... microseconds = milliseconds...

... even ... <frown>

John

"John Smith" <assemblywizard@gmail.com> wrote in message
news:lTTHe.217$7B3.6926411@news.sisna.com...
> the square root of seven nines is 3162.27...
>
> if the figure above were microseconds would be ~3.162 seconds.
>
> John
>
> "Tom Ring" <news0002@taring.org> wrote in message
> news:42f005cb$0$32200$39cecf19@news.twtelecom.net...
>> Reg Edwards wrote:
>>
>>> Just prior to a General Election (of Members of Parliament) in the UK
>>> I once asked a prospective MP what seven nines were. He didn't know!
>>
>> Interesting that the same things have very different meanings.
>>
>> In my current business 7 nines would mean roughly 3.16 seconds. Can you
>> tell me why?
>>
>> tom
>> K0TAR
>>
>
>

3826. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 01:24:08 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <I%UHe.7194$pp.3753@bignews1.bellsouth.net>
Source record: 72292

Why not just run one pair. Then split off at the end with the antennas.
The signal will take the path of least resistance, so the most likely
antenna for the job will be chosen automatically. The ones with high Z will
resist. Resistance is not futile.

My 2¢ (that "¢" key was tough to find)

"greg knapp 5" <gknapp@freshrain.org> wrote in message
news:xMSdnQsEIcAoXHPfRVn-3Q@speakeasy.net...
> I need your advice, as I have never worked with open wire lines before.
> I need to feed many different antennas with open wire line and need to run
> the feeline from each about 200 feet from the back pasture to the shack. I
> don't want to walk out 200 feet and throw knife switches to chose the
> antenna/feedline I want to feed, so I plan to run separate 600 ohm open
> feeds for each antenna all the way to the shack.
> The problem is I don't know what the effect is or how to handle the
> multiple open wire feed lines, as they will be parallel for probably
150-200
> feet. I haven't found anything in literature describing this.
> For instance, will they interact? how far do you space the feedlines from
> one another? If I have 4 feedlines, can I stack them vertically or
> horizontally one foot apart from each other? How much is enough
separation?
> What other precautions do I need? Need they be twisted if they are not
near
> anything other than the other feed lines?
> Any help is appreciated.
> 73,
> Greg, N6GK
>
>

3827. Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 02:35:47 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1123036547.758121.105620@g44g2000cwa.googlegroups.com>
Source record: 72293

Hello,
I'm thinking about suspending approximately 100 feet of 9913 coax on a cable to run it out to my new antenna site. I will be using an ameritron rcs8vl remote antenna switch going to two dipoles and three verticals. What I'm looking for from the group would be an electrically / RF safe method of doing this. I have considered going underground for the run, but would have to go under a patio and over our septic system. Thanks for any ideas.
Rob Brown
KB8WWS

3828. Henry SS1200HF Solid State 1200 watt amplifier for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 02:51:36 UTC
From: Colin Gunn <cgunn@telus.net>
Message-ID: <YiWHe.205848$on1.190283@clgrps13>
Source record: 72294
Cross-posted to: alt.ham-radio,alt.ham-radio.hf,alt.ham-radio.marketplace,alt.ham-radio.ssb,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.swap

For Sale

One Henry SS1200HF solid state amplifier for sale. Very heavy duty construction. Requires 28V power supply. Was working when recently removed from large pleasure boat. Good Condition overall. Email me if you would like more info / pics. cngunn@telus.net.

Asking $975.00. Weighs 35 lbs. Located in Victoria, B.C. Canada.

Colin, VE7TNT

3829. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 04:08:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f04447$1_2@spool9-west.superfeed.net>
Source record: 72295

Jim Kelley wrote:
> You argued that power propagates and
> reflects, and I explained that it doesn't.

Jim, you know that isn't true. After you reviewed my article,
I changed every occurence of "reflected power" to "reflected
energy" just to satisfy you. You have never been able to
back up your assertions about what I have said with any
quotes of mine. Wonder why?

So once again, I challenge you to produce a quote where I
said power propagates and reflects. I have always said that
energy propagates and reflects and power is the measurement
of that energy flowing past a point.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3830. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 04:30:35 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <2vednRZDW5Ly1W3fRVn-2w@speakeasy.net>
Source record: 72296

Thanks for the $.02 worth...it would be a good idea for me, but I will have several antennas (of various types - dipoles, vee beams, etc.) capable of being used for the same band, but at different angles from each other. I hate to "share" my antennas and mess up the patterns I want to use. I thought about switching way out back, but kind of hard to do A-B testing when I have a 500 foot run to switch the antennas and get back to the shack! I'm too old for that!
"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:I%UHe.7194$pp.3753@bignews1.bellsouth.net...
> Why not just run one pair. Then split off at the end with the antennas.
> The signal will take the path of least resistance, so the most likely
> antenna for the job will be chosen automatically. The ones with high Z
> will
> resist. Resistance is not futile.
>
> My 2 (that "" key was tough to find)
>
> "greg knapp 5" <gknapp@freshrain.org> wrote in message
> news:xMSdnQsEIcAoXHPfRVn-3Q@speakeasy.net...
>> I need your advice, as I have never worked with open wire lines before.
>> I need to feed many different antennas with open wire line and need to
>> run
>> the feeline from each about 200 feet from the back pasture to the shack.
>> I
>> don't want to walk out 200 feet and throw knife switches to chose the
>> antenna/feedline I want to feed, so I plan to run separate 600 ohm open
>> feeds for each antenna all the way to the shack.
>> The problem is I don't know what the effect is or how to handle the
>> multiple open wire feed lines, as they will be parallel for probably
> 150-200
>> feet. I haven't found anything in literature describing this.
>> For instance, will they interact? how far do you space the feedlines from
>> one another? If I have 4 feedlines, can I stack them vertically or
>> horizontally one foot apart from each other? How much is enough
> separation?
>> What other precautions do I need? Need they be twisted if they are not
> near
>> anything other than the other feed lines?
>> Any help is appreciated.
>> 73,
>> Greg, N6GK
>>
>>

>
>

3831. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 04:36:36 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <fZ6dnTQPhP5J1G3fRVn-ig@speakeasy.net>
Source record: 72297

Thanks Frank for running the program and for the results. They give me a good confirmation of what Riachard Clark showed me, I need to get more space between these feeds than I was planning on. If I had 3 feeds, I guess I ought to have a cross arm on my wood/PVC poles coming in and spread the feeds by about two feet to minimize the interaction down to a miniscule amount. I really do want to feed the antennas separately. Gee, I wonder what W6AM used to do with his 10 or 12 rhombics fed with open wire all coming into his home...

73,

Greg, N6GK

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:xqNHe.177484$tt5.93925@edtnps90...
> "greg knapp 5" <gknapp@freshrain.org> wrote in message
> news:xMSdnQsEIcAoXHPfRVn-3Q@speakeasy.net...
>>I need your advice, as I have never worked with open wire lines before.
>> I need to feed many different antennas with open wire line and need to
>> run the feeline from each about 200 feet from the back pasture to the
>> shack. I don't want to walk out 200 feet and throw knife switches to
>> chose the antenna/feedline I want to feed, so I plan to run separate 600
>> ohm open feeds for each antenna all the way to the shack.
>> The problem is I don't know what the effect is or how to handle the
>> multiple open wire feed lines, as they will be parallel for probably
>> 150-200 feet. I haven't found anything in literature describing this.
>> For instance, will they interact? how far do you space the feedlines from
>> one another? If I have 4 feedlines, can I stack them vertically or
>> horizontally one foot apart from each other? How much is enough
>> separation? What other precautions do I need? Need they be twisted if
>> they are not near anything other than the other feed lines?
>> Any help is appreciated.
>> 73,
>> Greg, N6GK
>
> Hi Greg:
>
> I have just run a free space NEC 2 model of a pair of horizontally
> positioned 6" wide, 600 ohm, transmission lines, vertically separated by
> 12". The model was run from 29 to 31 MHz. On 30 MHz , with both lines
> terminated in 600 ohms the isolation was about 39 dB. With both lines
> terminated in 6,000 ohms the isolation improved to 66 dB. The actual
> range of impedances will be much higher, and complex, but it does give an
> idea of the order of magnitude of the isolation. The calculation is based
> on the ratio of the peak currents observed.

>
> Hope this helps,
>
> 73,
>
> Frank (VE6CB)
>
>
>

3832. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 04:40:51 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndf0imj.30f3.ben@saturn.home.ben.com>
Source record: 72298

On 2005-08-02, Tom Ring <news0002@taring.org> wrote:
>
> In my current business 7 nines would mean roughly 3.16 seconds. Can you
> tell me why?

That's how much downtime you get each year if you have 99.9999% uptime.
Of course that's *unplanned* downtime. ;-)

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

3833. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 04:41:42 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <MdadnUmfGbSb1m3fRVn-1g@speakeasy.net>
Source record: 72299

Wow, then if I had 6" spacing, it would have to be 5 feet from the nearest other feed line! With the three lines I want to bring in, that is a cross pole of 10 feet! Wow...I better consider using my old 450 ohm window ladder line with about 1.x inch spacing so I can get down to a reasonable spread!

This is really opening my eyes up to the logistics of running this type of feedline...low loss, but definitely more expense, bother, etc. than running a bunch of coax lines! It almost makes me want to put up resonant antennas (like parallel dipoles, fed with a balun and coax...so much easier!). I'm going to have to think this through some more.

Thanks for the input,

Greg, N6GK

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ngaue1hjod7h1nrbnfal003njs3mmublmm@4ax.com...
> On Mon, 1 Aug 2005 17:43:34 -0700, "greg knapp 5"
> <gknapp@freshrain.org> wrote:
>
>>If I have 4 feedlines, can I stack them vertically or
>>horizontally one foot apart from each other? How much is enough
>>separation?
>>What other precautions do I need? Need they be twisted if they are not
>>near
>>anything other than the other feed lines?
>>Any help is appreciated.
>
> Hi Greg,
>
> Feed lines that are terminated in balanced loads are self isolating.
> The balance of the load is with respect to earth and is discussed
> under the heading of Common Modality. So your problems are load
> defined, not line defined. Naturally there is a continuum of linkage
> between lines even in this best of all possible worlds. That
> continuum spans from considerable-to-miniscule and it is, as you have
> guessed, dependant upon spacing.
>
> What constitutes considerable may be miniscule for another and I will
> leave that determination up to you, as you have offered no limits nor
> quantitative concerns. If you need a rule of thumb, keep all lines at
> least 10 times their own pair-spacing apart. That is, if a twin lead
> has 1 inch spacing between the conductors, keep that twin lead 10
> inches from a similar feedline.
>

> There are no doubt authoritative reports to offer a justification for
> this rule, or any other offered. I would expect this would come from
> Laport's work (which several correspondents here have copies of).
>
> 73's
> Richard Clark, KB7QHC

3834. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 04:45:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0ti0f19h4m3uhsqs743t1dsimluqp8ea75@4ax.com>
Source record: 72300

On Tue, 2 Aug 2005 21:41:42 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>Wow, then if I had 6" spacing, it would have to be 5 feet from the nearest
>other feed line!

Hi Greg,

Not really, you haven't told us how important the coupling factor is
yet.

73's
Richard Clark, KB7QHC

3835. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 05:09:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f052ac$1_1@spool9-west.superfeed.net>
Source record: 72301

Jim Kelley wrote:
> You argued that power propagates and
> reflects, and I explained that it doesn't.

Jim, here's a posting from last year that proves your assertion
to be false. I agreed with you last year that power doesn't
flow and isn't reflected. I agreed with you that it is energy
that flows and is reflected. I agreed with you that power is
measured at a point. Seems an apology is in order.

Newsgroups: rec.radio.amateur.antenna
From: Cecil Moore <w5dxp@hotmail.com>
Date: Thu, 02 Dec 2004 14:28:20 -0600
Subject: Re: Additional Line Losses Due to SWR

Jim Kelley wrote:
> The crux of
> the phenomenological problem is that power does not flow or move, nor is
> it something that is reflected.

But energy does flow and move and is something that can be reflected.
You can easily see the energy packets using a TDR. Without energy,
those pulses wouldn't exist. The energy is obviously in the pulse,
where the voltage and current are.

And joules of energy flowing past a point is joules/sec, i.e. power,
by IEEE definition.
--
73, Cecil http://www.qsl.net/w5dxp

--
73, Cecil http://www.qsl.net/w5dxp

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3836. Re: Dell1350Wlan & NetGear Wgt624 NO DHCP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 05:17:43 UTC
From: Very Tiny <clem@beer.com>
Message-ID: <pork.pork.pork@stiff.and.tiny.org>
Source record: 72302
Cross-posted to: alt.internet.wireless,microsoft.public.windows.networking.wireless,rec.radio.amateur.antenna,alt.religion.kibology

On Mon, 01 Aug 2005 19:44:10 -0700, Tbone wrote:

On Mon, 01 Aug 2005 19:44:10 -0700, MR. TROY "Tbone" MANGUM ("Tbone"
<troy.man...@gmail.com> in the message
<1122950650.658200.287...@o13g2000cwo.googlegroups.com>
wrote in the usenet group alt.internet.wireless a big fat question of
curousity:

> I cannot get my Dell 1350 WLAN card to obtain a DHCP from NETGEAR
> WGT624. Even when I set ip to static I still cannot connect. My card
> can see my SSID. I am getting a strong signal. But I cannot connect. I
> have downloaded latest Dell 1350 drivers and NetGear firmware. My
> NetGear route is a DHCP client to roadrunner. I can connect to internet
> through a wire connection attached to my wireless router and it get a
> dhcp address.
>
> any ideas?

Sure. I know exactly what the problem is. In certain situations
(especially when using the recent Dell issue wireless G chipsets in
conjunction with the Netgear access points, an unhealthy high amount of
static impedance buildup occurs in the surrounding atmosphere,
particularly in areas of low and medium elevation (in mountainous high
elevation regions this isn't nearly the case) as I am sure Dell Support
has probably already explained. There a few ways to get around this. Do a
query of all wireless devices, microwave ovens, RC devices and pleasure
clubs (planes, and cars) and garage door openers. You will then need to
place such devices under the inspection of a valid, certified operator of
a high thermal stability micropower voltage reference meter. This sounds
like a great deal of effort and expense but any typical radio shack
employee could probably offer the service remotely for a fee of around 10
bucks or less (or at the very least turn you in the direction of some
inexpensive alternative.

You can try to use a static defusing device by placing large pieces of
Styrofoam on top, beside, and underneath your wireless access devices.
You might also want so smear a small amount of viscous material upon the
antenna and external interfaces of your laptop and access point. This
often fixes the problem as well.

3837. Re: Dell1350Wlan & NetGear Wgt624 NO DHCP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 05:18:49 UTC
From: Very Tiny <clem@beer.com>
Message-ID: <42a9ea98$1_1@spool9-west.superfeed.net>
Source record: 72303
Cross-posted to: alt.internet.wireless,microsoft.public.windows.networking.wireless,rec.radio.amateur.antenna,alt.religion.kibology

On Mon, 01 Aug 2005 19:44:10 -0700, Tbone wrote:

On Mon, 01 Aug 2005 19:44:10 -0700, MR. TROY "Tbone" MANGUM ("Tbone"
<troy.man...@gmail.com> in the message
<1122950650.658200.287...@o13g2000cwo.googlegroups.com>
wrote in the usenet group alt.internet.wireless a big fat question of
curousity:

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> can see my SSID. I am getting a strong signal. But I cannot connect. I
> have downloaded latest Dell 1350 drivers and NetGear firmware. My
> NetGear route is a DHCP client to roadrunner. I can connect to internet
> through a wire connection attached to my wireless router and it get a
> dhcp address.
>
> any ideas?

Sure. I know exactly what the problem is. In certain situations
(especially when using the recent Dell issue wireless G chipsets in
conjunction with the Netgear access points, an unhealthy high amount of
static impedance buildup occurs in the surrounding atmosphere,
particularly in areas of low and medium elevation (in mountainous high
elevation regions this isn't nearly the case) as I am sure Dell Support
has probably already explained. There a few ways to get around this. Do a
query of all wireless devices, microwave ovens, RC devices and pleasure
clubs (planes, and cars) and garage door openers. You will then need to
place such devices under the inspection of a valid, certified operator of
a high thermal stability micropower voltage reference meter. This sounds
like a great deal of effort and expense but any typical radio shack
employee could probably offer the service remotely for a fee of around 10
bucks or less (or at the very least turn you in the direction of some
inexpensive alternative.

You can try to use a static defusing device by placing large pieces of
Styrofoam on top, beside, and underneath your wireless access devices.
You might also want so smear a small amount of viscous material upon the
antenna and external interfaces of your laptop and access point. This
often fixes the problem as well.

3838. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 05:34:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <h6l0f1lnirivpl4q5pgrtdeqbpru9hhbq6@4ax.com>
Source record: 72304

On Tue, 2 Aug 2005 21:41:42 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>Wow, then if I had 6" spacing, it would have to be 5 feet from the nearest
>other feed line! With the three lines I want to bring in, that is a cross
>pole of 10 feet! Wow...I better consider using my old 450 ohm window ladder
>line with about 1.x inch spacing so I can get down to a reasonable spread!
>
>This is really opening my eyes up to the logistics of running this type of
>feedline...low loss, but definitely more expense, bother, etc. than running
>a bunch of coax lines! It almost makes me want to put up resonant antennas
>(like parallel dipoles, fed with a balun and coax...so much easier!). I'm
>going to have to think this through some more.
>

I worked in HF radio stations briefly a long time ago, and the
practice there was, IIRC, two wire lines of 3mm HDC with 200mm spacing
so they were around 600 ohms 'ish. There were also some 4 wire lines
with similar spacing (in a box config). These lines were strung out on
pole routes with separation about double the wire spacing. I can't
remember now if there were periodic polarity reversals. These were at
rx only or tx only facilities, so receiver de-sense was not an issue.
Do you need full duplex?

Clearly, the closer the lines the higher crosstalk (coupling from one
line to another), and presumably, twisted lines will have lower
crosstalk (think about the cat5 etc data cables).

Don't forget, that the antennas at the far end are coupled, and
achieving crosstalk of -100dB might not materially improve the
solution!

A pole route carrying a number of lines is a pretty serious project
(installation and maintenance). I would also look around at remote
switching solutions or multiband antennas to see if you can minimise
the number of lines you need to string.

Owen
--

3839. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 09:43:45 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <xl0le.73944$ro.5275@fed1read02>
Source record: 72305

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:QrPHe.35144$Eo.25151@fed1read04...
> I'm looking for an antenna connector with the following
> idea:
>
> I want to mount a spare 2m/440 mobile antenna on my
> race bike and use my FT-51R ht on my belt with the
> deluxe remote mic on the handlebars.
>
> Problem is that if I wreck, the radio will want to stay on
> my belt but the coax going to the antenna won't! The mic
> connector will pull out but the antenna connector (BNC)
> will stay until something breaks. If I wreck, I may need my
> HT to call for assistance (it's happened once before) I
> need an inepensive 50 ohm pair of connectors that will slide
> apart when pulled. Kinda like a push on F fitting but for
> 50 ohm RG-58 cable.
>
> The only ones I've thought of are the F fitting or an RCA
> connection. Anybody know the impedance of an RCA plug?
>
> Are there push on BNC or 259 connectors? Cost matters.

Take a look at SMB or SMC coax connectors. One of those, IIRC, is a push-on
style, and should uncouple before damaging the coax line.

--
Ed
WB6WSN
El Cajon, CA USA

3840. F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 11:00:34 UTC
From: thehustler@hotmail.com
Message-ID: <thehustler-0308051201200001@10.0.1.1>
Source record: 72306

All,

I've been listening to this guy on 80/40m with his 60m high antenna, he's a huge signal with me and indeed crashed over the top of the pileups for the PY's on 40m the other eveningm now I see he is selling them.

Might be worth a look if you have a small garden as it would appear it works fine from this type of QTH.

www.f5vkm.com

hustler ...

3841. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 11:04:04 UTC
From: Dave <noone@nowhere.com>
Message-ID: <QfOdneNdXYI2OW3fRVn-ig@crocker.com>
Source record: 72307

yep, works fine, lasts a long time, much easier to construct. the only down side is that some people don't like to look at it.

"Rob Brown" <kb8wws@gmail.com> wrote in message news:1123036547.758121.105620@g44g2000cwa.googlegroups.com...
> Hello,
> I'm thinking about suspending approximately 100 feet of 9913 coax on
> a cable to run it out to my new antenna site. I will be using an
> ameritron rcs8vl remote antenna switch going to two dipoles and three
> verticals. What I'm looking for from the group would be an
> electrically / RF safe method of doing this. I have considered going
> underground for the run, but would have to go under a patio and over
> our septic system. Thanks for any ideas.
> Rob Brown
> KB8WWS
>

3842. Terrain Analysis : TA from K6STI or equivalent

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 12:51:32 UTC
From: Marc Delporte <marc.delporte@wanadoo.fr>
Message-ID: <42f0bdc3$0$22287$8fcfb975@news.wanadoo.fr>
Source record: 72308

Hi

I'm looking for the software "Terrain Analysis" from K6STI or equivalent.

I do not find any links on the web to get it !

Is it still actual ? Is there equivalent (or better) software ?

Thanks a lot

Best regards

73' F1GSN

3843. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 13:45:18 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1123076718.410689.86480@g43g2000cwa.googlegroups.com>
Source record: 72309

What a lame attempt to advertise YOUR antennas

>X-Trace: 1123063312 news.wanadoo.fr 1227 193.250.31.195:49379

3844. Re: Terrain Analysis : TA from K6STI or equivalent

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 14:40:01 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <5H4Ie.206292$on1.133533@clgrps13>
Source record: 72310

"Marc Delporte" <marc.delporte@wanadoo.fr> wrote in message
news:42f0bdc3$0$22287$8fcfb975@news.wanadoo.fr...
> Hi
>
> I'm looking for the software "Terrain Analysis" from K6STI or equivalent.
>
> I do not find any links on the web to get it !
>
> Is it still actual ? Is there equivalent (or better) software ?
>
> Thanks a lot
>
> Best regards
>
> 73' F1GSN

Would that be HF Terrain Assessment? It computes the effects of local terrain on the radiation pattern of antennas. The software was developed by N6BV, and is given free with purchase of the ARRL Antenna Book. See www.arrl.org

73,

Frank (VE6CB)

3845. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 14:47:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <84m1f1tci81akgviciml6g4p45k6ll2hic@4ax.com>
Source record: 72311

On Tue, 02 Aug 2005 16:04:29 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>> You can add Walter Johnson, Simon Ramo, and John Whinnery to
>>> that list. "Power in the reflected wave" is commonly mentioned.
>>
>> Proving what, exactly? That power is "in" a reflected wave?
>
>Proving that "Power in the reflected wave" is common
>usage in RF engineering. You are not going to get the
>human race to stop using the word, "sunrise", no
>matter what you say or do.

Jim, I'm sure you'll agree that voltage is reflected, and that current
is also reflected. Then isn't the product of voltage and current
power?

Walt, W2DU

3846. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 15:13:23 UTC
From: richardharrison@webtv.net
Message-ID: <17798-42F0DF13-5@storefull-3253.bay.webtv.net>
Source record: 72314

Greg Knapp wrote:
"I need to feed many different antennas with open wire line and need to run the feedline from each about 200 feet from the back pasture to the shack."

This is similar to the problem facing commercial shortwave stations. They usually have more distance and numbers of antennas and transmitters to serve several target areas simultaneously.

The preferred solution is a feedline for each antenna. These separate lines converge on the switching location near the plant. Each transmitter is equipped with its own feedline too. These converge on the switching location too.

In the "crossbar" switching arrangement, any transmitter may be connected to any antenna. Very flexible and it works well.

When separate lines are too extravagant, a single line is switched at both ends between some transmitters and some antennas. You need at least as many lines as you have transmitters if all are going to operate at once and not in parallel.

Most commercial stations have multiband radios but use narrowband antenna systems. This requires many more antennas than transmitters to serve many different targets in various bands required on the various paths around the clock.

If you had only one direction or sense to serve, a single rhombic connected by a single line to the transmitter might do a compromised job. The rhombic will take a load at almost any frequency, but its pattern changes with frequency so its coverage of a target won`t be ideal at most frequencies.

If you don`t want to walk 200 feet to switch antennas, use relays controlled from your shack. That`s what professionals do.

Best regards, Richard Harrison, KB5WZI

3847. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 15:16:28 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <gd5Ie.206296$on1.137119@clgrps13>
Source record: 72312

"greg knapp 5" <gknapp@freshrain.org> wrote in message
news:fZ6dnTQPhP5J1G3fRVn-ig@speakeasy.net...
> Thanks Frank for running the program and for the results. They give me a
> good confirmation of what Riachard Clark showed me, I need to get more
> space between these feeds than I was planning on. If I had 3 feeds, I
> guess I ought to have a cross arm on my wood/PVC poles coming in and
> spread the feeds by about two feet to minimize the interaction down to a
> miniscule amount. I really do want to feed the antennas separately. Gee,
> I wonder what W6AM used to do with his 10 or 12 rhombics fed with open
> wire all coming into his home...
>
> 73,
>
> Greg, N6GK

No Problem Greg, glad to help. Just for interest I ran the program at different spacings: at 6" the isolation is 27 dB, and at 2 ft 48 dB. Both these measurements with 600 ohm terminations.

Balanced transmission lines radiate very little energy, but worst case occurs at the higher frequency. For example the maximum radiated RF from a terminated 600 ohm transmission line, at 30 MHz, is about -28 dBi.

I have seen pictures of W6AM's transmission lines, but can no longer find them on the web. His antenna farm, as I understand, was purchased from a commercial HF station. Interesting little article on W6AM in http://www.mvarc.com/images/mvarcJULY05pp9.PDF

73,

Frank

3848. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 15:30:08 UTC
From: richardharrison@webtv.net
Message-ID: <17797-42F0E300-36@storefull-3253.bay.webtv.net>
Source record: 72316

Bob Brown, KB8WWS wrote:
"I have considered going underground for the run, but would have to go under a patio and over our septic system."

Complicated. Do as phone and cable companies do. Use a messenger cable to uniformly support the coax along its length. No cable strain or connector separation. Take care waterproofing all joints.

Best regtards, Richard Harrison, KB5WZI

3849. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 15:38:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f0e607$1_1@spool9-west.superfeed.net>
Source record: 72315

Walter Maxwell wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Proving that "Power in the reflected wave" is common
>>usage in RF engineering.
>
> Jim, I'm sure you'll agree that voltage is reflected, and that current
> is also reflected. Then isn't the product of voltage and current
> power?

I think I understand Jim's point that power is measured
relative to a stationary point or plane. The Bird wattmeter
is stationary in the transmission line and measures the
average energy/time flowing through it. Average power is
averaged over at least one complete cycle. It is hard to
visualize an average power meter measurement while the meter
is moving with the wave - admittedly an esoteric point and
not likely to have any effect on common usage.

Consider that it is the instantaneous value of voltage and
current that is reflected (actually the instantaneous E-field
and H-field). The RMS value of voltage and current is not
what is actually reflected in reality. But again, shortcuts
and common usage rule the day.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3850. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:02:54 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <pdq1f158oeqpr3u4seqcih3fkebrquadfs@4ax.com>
Source record: 72317

On Wed, 03 Aug 2005 12:00:34 +0100, thehustler@hotmail.com (The
hustler) wrote:

>All,
>
>I've been listening to this guy on 80/40m with his 60m high antenna, he's
>a huge signal with me and indeed crashed over the top of the pileups for
>the PY's on 40m the other eveningm now I see he is selling them.
>
>Might be worth a look if you have a small garden as it would appear it
>works fine from this type of QTH.
>
>www.f5vkm.com
>
>hustler ...

I'm sure a lot of antennas work well when they're 60m high -- that's
about 195 feet off the ground, if my math is correct. Just the thing
for that "small garden."

bob
k5qwg

3851. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:18:38 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <c5Sdnatfsdf1c23fRVn-iQ@speakeasy.net>
Source record: 72319

I really can't answer how important the coupling factor is because I have never dealt with this factor before.
I assume the only down side of too much coupling is that some small amount of RF would then be coupled to the wrong antenna and radiated in some pattern that is not necessarily desirable. So, as I understand it (I sure could be wrong), if I was running a 1000 watts out, with coupling at -30 db, 1 watt would be coupled to the parallel line which would then be radiated by the wrong antenna--which, if true, certainly doesn't seem significant. I am not sure what is a significant level (i.e., significant distortion of net radiation pattern) in dealing with two simultanteously feed antennas, but I would think that if it is a ratio of the transmitted power, then 1000 vs 1 watt would seem to cause very minor distortion and would seem to be acceptable. If my reasoning is OK, then I would think spacing of feedlines would not need be too great, even if 5-inch spaced 600 ohm was used in place of 1.x inch spaced 450 ohm line.
Any insight would be appreciated.
73,
Greg, N6GK

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:0ti0f19h4m3uhsqs743t1dsimluqp8ea75@4ax.com...
> On Tue, 2 Aug 2005 21:41:42 -0700, "greg knapp 5"
> <gknapp@freshrain.org> wrote:
>
>>Wow, then if I had 6" spacing, it would have to be 5 feet from the nearest
>>other feed line!
>
> Hi Greg,
>
> Not really, you haven't told us how important the coupling factor is
> yet.
>
> 73's
> Richard Clark, KB7QHC

3852. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:18:39 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1123085919.147108.167170@g47g2000cwa.googlegroups.com>
Source record: 72318

And you would be ?

3853. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:20:12 UTC
From: thehustler@hotmail.com
Message-ID: <thehustler-0308051720570001@10.0.1.1>
Source record: 72313

You couldn't be more wrong chap, I too live in France, Grenoble actually ...
That's why he is such a good signal here !

In article <1123076718.410689.86480@g43g2000cwa.googlegroups.com>, "Rick
Scott" <RickN7HJ@gmail.com> wrote:

> What a lame attempt to advertise YOUR antennas
>
> >X-Trace: 1123063312 news.wanadoo.fr 1227 193.250.31.195:49379

3854. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:23:32 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <tnp1f19em2pte1kqr36dbboqel0314g1cp@4ax.com>
Source record: 72320

On Mon, 1 Aug 2005 17:43:34 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>I need your advice, as I have never worked with open wire lines before.
>I need to feed many different antennas with open wire line and need to run
>the feeline from each about 200 feet from the back pasture to the shack. I
>don't want to walk out 200 feet and throw knife switches to chose the
>antenna/feedline I want to feed, so I plan to run separate 600 ohm open
>feeds for each antenna all the way to the shack.
>The problem is I don't know what the effect is or how to handle the
>multiple open wire feed lines, as they will be parallel for probably 150-200
>feet. I haven't found anything in literature describing this.
>For instance, will they interact? how far do you space the feedlines from
>one another? If I have 4 feedlines, can I stack them vertically or
>horizontally one foot apart from each other? How much is enough separation?
>What other precautions do I need? Need they be twisted if they are not near
>anything other than the other feed lines?

I probably have more questions than answers.

1. Are the antennas to be operated independently? Is this a duplex or
diversity system?

2. Will the unused lines be terminated in the shack?

3. Are these multiband antennas with tuned feeders or could they just
as easily be coax-fed?

4. What do you consider to be detrimental interaction?

As others have suggested, there will be coupling between the antennas,
so feedline-to-feedline isolation will not necessarily be a figure of
merit.

If you consider the impedance change of a single pair of wires
operated over ground as a proxy for interaction, then with separation
by 3 or 4 times the wire spacing, you are probably okay for all but
the most critical situations.

One test would be to excite one line and measure the power in an
adjacent line, remembering that some (a lot?) of the coupling will be
antenna-to-antenna and will also be frequency dependent.

3855. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:26:00 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1123086360.721301.225400@g43g2000cwa.googlegroups.com>
Source record: 72321

Oh and your Use of CHAP, not many Frenchmen I met use that term. But hmm English chaps do. And Looking at the QRZ Callsign lookup of that F5 I find

Mike F5VKM (UK Callsigns M0AWS/G1SYT)

Oh gee, Just happens to be English as well.

What An AMAZING Coincidence.

3856. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:34:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a3s1f1dq6q6a6p12nem8e078rls72rvghb@4ax.com>
Source record: 72322

On Wed, 3 Aug 2005 09:18:38 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>I really can't answer how important the coupling factor is because I have
>never dealt with this factor before.

Hi Greg,

Frank has been carrying a lot of water for you in this regard. I would point out (and he has stated as much) that his numbers are for a load of 600 Ohms. Now, any mismatch will not have any impact on the coupling, but the load's balance to earth will and Frank has done no study of induced Common Mode currents. Given that there is a world of possible imbalances possible, it is hard to know where to go from there.

There is also a world of probable imbalances too. The antennas you are feeding are far more likely the source of the problem of coupling between lines than are the lines' proximity. However, proximity only magnifies the problem. Still and all, even the worst imbalance is unlikely to pose significant issues. It might be problematic for a VOA feed of 500KW with leakage of their European service into their African service, but you are not in that class (and they probably now how to keep their antennas balanced too).

73's
Richard Clark, KB7QHC

3857. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 16:54:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <19t1f15fracg6gc4sucegc2opmhdleimu1@4ax.com>
Source record: 72323

On Wed, 03 Aug 2005 17:20:12 +0100, thehustler@hotmail.com (The
hustler) wrote:

>You couldn't be more wrong chap, I too live in France, Grenoble actually ...
>That's why he is such a good signal here !

Let's see, F5VKM lives in Bretagne, you are posting this in Bretagne,
and Grenoble is roughly 700KM away. That 60M high antenna would
probably hit you if it fell.

There was a guy caught by his cell-phone recently. Same class of
mistake.

3858. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 17:56:25 UTC
From: richardharrison@webtv.net
Message-ID: <7551-42F10549-110@storefull-3258.bay.webtv.net>
Source record: 72324

Jim Kelley wrote:
"---power does not flow or move, nor is it something that can be reflected."

From the Random House American College Dictionary:
Power is the ability to do or act. It is the time rate of transferring or transforming energy. It is work done or energy transferred per unit of time.

The power to do or act can be moved from one location to another. A power house is an electrical generating station where some other form of energy is converted to electricity which is very flexible in application.

From the power house, the power (ability to do or act) is transported by power transmission lines to the places it is used.

Since the wavelength at 60 Hz is 5 million meters, (5000 km), power transmission lines aren`t long enough to produce standing waves which are caused by reflections.

Radio-frequency transmission lines are often long enough to show the effects of reflections and the standing waves produced by those reflections.

Power flows in r-f lines and it is reflected at impedance discontinuities accordimg to the most knowledgeable experts. F.E. Terman is my favorite.

Best regards, Richard Harrison, KB5WZI

3859. GAP & phased array

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 18:05:05 UTC
From: Renzo <derenzo@tiscalinet.it>
Message-ID: <lH7Ie.3701$HM1.76009@twister1.libero.it>
Source record: 72225

Did someone try to realize a 2 vertical phased array for
40 & 80 meters using two Gap/Voyager?
Thanks in advance!

Best 73 de Renzo - IK0IZW -- "CW: let your fingers sing a song" --

3860. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 18:24:37 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11f22tltorv883c@corp.supernews.com>
Source record: 72226

one more "9" My calculator says that 3.16 sec per year (365.25 days) is an
up percent of 99.99990

73 Mac N8TT - back from Perry

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Ben Jackson" <ben@ben.com> wrote in message
news:slrndf0imj.30f3.ben@saturn.home.ben.com...
> On 2005-08-02, Tom Ring <news0002@taring.org> wrote:
> >
> > In my current business 7 nines would mean roughly 3.16 seconds. Can you
> > tell me why?
>
> That's how much downtime you get each year if you have 99.9999% uptime.
> Of course that's *unplanned* downtime. ;-)
>
> --
> Ben Jackson
> <ben@ben.com>
> http://www.ben.com/

3861. Re: Terrain Analysis : TA from K6STI or equivalent

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 18:35:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11f23ja2to2egd9@corp.supernews.com>
Source record: 72227

The last I heard, you can still buy it. But you have to order it by mail. I would assume that K6STI requires payment in U.S. funds payable through a U.S. bank. His address is:

Brian Beezley, K6STI
3532 Linda Vista Dr.
San Marcos, CA 92069
U.S.A.

I don't know of any equivalent or better software.

Roy Lewallen, W7EL

Marc Delporte wrote:
> Hi
>
> I'm looking for the software "Terrain Analysis" from K6STI or equivalent.
>
> I do not find any links on the web to get it !
>
> Is it still actual ? Is there equivalent (or better) software ?
>
> Thanks a lot
>
> Best regards
>
> 73' F1GSN
>
>
>
>
>
>

3862. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 18:54:08 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcr3so$in0$1@news.service.uci.edu>
Source record: 72228

Walter Maxwell wrote:
> On Tue, 02 Aug 2005 16:04:29 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Jim Kelley wrote:
>>
>>
>>>Cecil Moore wrote:
>>>
>>>>You can add Walter Johnson, Simon Ramo, and John Whinnery to
>>>>that list. "Power in the reflected wave" is commonly mentioned.
>>>
>>>Proving what, exactly? That power is "in" a reflected wave?
>>
>>Proving that "Power in the reflected wave" is common
>>usage in RF engineering. You are not going to get the
>>human race to stop using the word, "sunrise", no
>>matter what you say or do.
>
>
> Jim, I'm sure you'll agree that voltage is reflected, and that current
> is also reflected. Then isn't the product of voltage and current
> power?
>
> Walt, W2DU

I hope I haven't given the impression that I would be unfamiliar with
that relationship. I used it in my work practically every day of my
life for many years.

Here's my best answer to such a question. According to the physics that
I've studied, physicists seem to be laboring under the impression that
it is the electric and magnetic fields which actually propagate and
interact with matter. That interaction can result in, among other
things, reflection. The E&H fields manifest themselves within matter as
voltages and currents, respectively. Although it is the fields which
reflect, it is the resulting voltages and currents that we can most
readily measure. From a practical everyday standpoint this distinction
makes little or no difference. It is only when we start to describe
physical processes such as energy flow that it may become necessary to
consider the distinction.

And yes, if you take a calculator or slide rule and multiply voltage and
current, and make certain assumptions, you can find the rate at which

energy is probably being transferred from one place to some other place. But some folks have argued descriptions of physical phenomena derived from an assumption that the number displayed on the calculator physically propagates through a transmission line, physically reflects off the ends of the transmission line or other discontinuities, and physically interferes with itself or other numbers like it. So that there is no further mistaking my position, I dispute the validity of these descriptions of the behavior of physical phenomena, and some of the predictions based upon them. I do not dispute P=V*I, but thanks for asking.

The wave which propagates along a transmission line can produce energy at a rate proportional to E x H, but it is not E x H which propagates along the transmission line. E propagates in one plane, and H propagates in a plane a right angles to E. When we know the characteristics of E and H (or V and I) individually, we can predict what will occur when either encounters a discontinuity. But when we multiply to two together, the resulting magnitude no longer possesses the properties of either of the multiplicands, and so no accurate predictions about interactions with discontinuities can truly be derived without making assumptions. And as we've seen, given a nebulous laundry list of assumptions, some inaccurate predictions can be derived.

Your 'Transformer' diagrams come as close as any I've seen to describing how things behave in an coaxial impedance matching arrangement. I hope you include them in your 3rd Edition. I have, by the way, found similar but less detailed drawings of thin film interfaces in two different physics textbooks. I think the key to understanding them is the superposition of multiple reflections.

73, Jim AC6XG

3863. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 19:10:19 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcr4r1$j39$1@news.service.uci.edu>
Source record: 72230

Whatever floats your boat, Richard. If you need to think of power as an 'ability' that flows through an electrical pipe, then I think you should think of it that way.

73, Jim

Richard Harrison wrote:

> Jim Kelley wrote:
> "---power does not flow or move, nor is it something that can be
> reflected."
>
> From the Random House American College Dictionary:
> Power is the ability to do or act. It is the time rate of transferring
> or transforming energy. It is work done or energy transferred per unit
> of time.
>
> The power to do or act can be moved from one location to another. A
> power house is an electrical generating station where some other form of
> energy is converted to electricity which is very flexible in
> application.
>
> From the power house, the power (ability to do or act) is transported by
> power transmission lines to the places it is used.
>
> Since the wavelength at 60 Hz is 5 million meters, (5000 km), power
> transmission lines aren`t long enough to produce standing waves which
> are caused by reflections.
>
> Radio-frequency transmission lines are often long enough to show the
> effects of reflections and the standing waves produced by those
> reflections.
>
> Power flows in r-f lines and it is reflected at impedance
> discontinuities accordimg to the most knowledgeable experts. F.E. Terman
> is my favorite.
>
> Best regards, Richard Harrison, KB5WZI
>

3864. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 19:44:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r262f11efanudt4mui0odjk9g5tqo2r8do@4ax.com>
Source record: 72231

On Wed, 03 Aug 2005 11:54:08 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>I have, by the way, found similar
>but less detailed drawings of thin film interfaces in two different
>physics textbooks. I think the key to understanding them is the
>superposition of multiple reflections.

Hi Jim,

Such coverage as you describe, in physics textbooks, are rudimentary
discussions suitable for introductory purposes. They are not the
end-all be-all nor final word on the matter. This is born out by
exhausting work being pursued by many in academia and the industry to
"completely cancel" reflections. They would not be so engaged in this
work if a simple, quarterwave, thin layer optic performed this
complete cancellation already. The fact of the matter is that by the
mechanics so described in the text books, they guarantee no totality
of cancellation. True, they offer a close hit, but this is not proof
of totality. Close is good enough for nuclear hand grenades too.

When the energy available in the first medium, at the second
interface, cannot possibly reflect enough of it to the first
interface; then no amount of superposition of ALL reflections (and
this presumes that the second interface is fully reflecting for these
succeeding multiples, an absurd notion in its own right) can exceed
that available energy.

Yes, this has all been said before, you've found it interesting but
not compelling; and yet no one here has offered any way to boost the
energy to completely cancel the reflection from the first interface.

Under the circumstances already described, those reflection products
(after assuming ALL the multiple reflections have been ushered out
from behind the first interface to destructively interfere) contain:
1800 TIMES MORE POWER THAN THE SUN!
which has been humorously relegated to zero. :-)

Flowing, dribbling, puddling, or simply expressed in terms of candelas
per square foot per fortnight, it all leads to the same conclusion:
the cancellation is not total. Hence the subject line of
The Extreme Failure of Poor Concepts
in Discussing Thin Layer Reflections

********* for those who cannot cope with the topic *************

I have a D Cell battery whose capacity is 3 W-HR, and I roll it along the floor.

Has power flowed?

How much? (sorry if I offended anyone by asking for a quantitative answer)

73's
Richard Clark, KB7QHC

3865. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 20:07:41 UTC
From: thehustler@hotmail.com
Message-ID: <thehustler-0308052108260001@10.0.1.1>
Source record: 72229

I'm English too, one of the 400,000 that currently live in France!

In article <1123086360.721301.225400@g43g2000cwa.googlegroups.com>, "Rick Scott" <RickN7HJ@gmail.com> wrote:

> Oh and your Use of CHAP, not many Frenchmen I met use that term. But
> hmm English chaps do. And Looking at the QRZ Callsign lookup of that
> F5 I find
>
> Mike F5VKM (UK Callsigns M0AWS/G1SYT)
>
> Oh gee, Just happens to be English as well.
>
> What An AMAZING Coincidence.

3866. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 20:30:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcr9hu$l6e$1@news.service.uci.edu>
Source record: 72232

Richard Clark wrote:

> On Wed, 03 Aug 2005 11:54:08 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>I have, by the way, found similar
>>but less detailed drawings of thin film interfaces in two different
>>physics textbooks. I think the key to understanding them is the
>>superposition of multiple reflections.
>
>
> Hi Jim,
>
> Such coverage as you describe, in physics textbooks, are rudimentary
> discussions suitable for introductory purposes. They are not the
> end-all be-all nor final word on the matter. This is born out by
> exhausting work being pursued by many in academia and the industry to
> "completely cancel" reflections. They would not be so engaged in this
> work if a simple, quarterwave, thin layer optic performed this
> complete cancellation already. The fact of the matter is that by the
> mechanics so described in the text books, they guarantee no totality
> of cancellation. True, they offer a close hit, but this is not proof
> of totality. Close is good enough for nuclear hand grenades too.
>
> When the energy available in the first medium, at the second
> interface, cannot possibly reflect enough of it to the first
> interface; then no amount of superposition of ALL reflections (and
> this presumes that the second interface is fully reflecting for these
> succeeding multiples, an absurd notion in its own right) can exceed
> that available energy.
>
> Yes, this has all been said before, you've found it interesting but
> not compelling; and yet no one here has offered any way to boost the
> energy to completely cancel the reflection from the first interface.
>
> Under the circumstances already described, those reflection products
> (after assuming ALL the multiple reflections have been ushered out
> from behind the first interface to destructively interfere) contain:
> 1800 TIMES MORE POWER THAN THE SUN!
> which has been humorously relegated to zero. :-)
>
> Flowing, dribbling, puddling, or simply expressed in terms of candelas
> per square foot per fortnight, it all leads to the same conclusion:

> the cancellation is not total. Hence the subject line of
> The Extreme Failure of Poor Concepts
> in Discussing Thin Layer Reflections
>
> ********* for those who cannot cope with the topic *************
>
> I have a D Cell battery whose capacity is 3 W-HR, and I roll it along
> the floor.
>
> Has power flowed?
>
> How much? (sorry if I offended anyone by asking for a quantitative
> answer)
>
> 73's
> Richard Clark, KB7QHC

Hi Richard.

The example you provided earlier is not any result of exhaustive research. It is not even an accurate thumbnail sketch of the phenomenon at the level of "rudimentary physics books". So I disagree with your assessment. (Perhaps you should consider having a look at the text you're characterizing first before you presume to characterize it.)

But if by all that you mean to say that it's not possible to make a perfect anything, then I think that ordinarily goes without saying. So yes, you're right. There is no such thing as a lossless medium.
But it is a rather simple matter to get a reasonably good match using this technique. I think you can assume that's about the degree of accuracy we're using for most of our discussions.

73, AC6XG

PS I like your power flow analogy. :-)

3867. Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 21:23:41 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dcrckt$9bo$1@mailhub227.itcs.purdue.edu>
Source record: 72233

I live in a two-story slab house with aluminum siding on the walls. Has anyone had any experience with mounting an external transmitting loop antenna (for 80 or 160 m) near aluminum siding? I am guessing it is not recommended, but I would be interested in any comments about this topic.

3868. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 21:28:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k9c2f1dmrojrrfrjdvjej1ttt6m9i5cj0n@4ax.com>
Source record: 72234

On Wed, 03 Aug 2005 13:30:47 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Hi Richard.
>
>The example you provided earlier is not any result of exhaustive
>research. It is not even an accurate thumbnail sketch of the phenomenon
>at the level of "rudimentary physics books".

Hi Jim,

This is what I mean by no argument being put forth to dispute what has
been offered. In fact every computation offered flows from the math
offered by ANY academic text. I even name the math used, and then use
it. In fact, I have lead the way by offering every cogent formula
needed to discuss this matter.

I see no dispute in the assignment of indices of reflection. I see no
dispute in the computation of reflections. I see no dispute in the
balance of energy at each interface. And I am speaking of
quantitative results, not presumptions. The chain of causality is not
very long, it exhibits very obvious contradictions to the notion of
"totality," and the practical example is hardly from the sphere of the
wildly imaginative. The example is further exhibited as a practical
problem of current research.

>So I disagree with your assessment.

OK, so you disagree, but that is not an argument, it is simply a
statement of prejudice.

> (Perhaps you should consider having a look at the text
>you're characterizing first before you presume to characterize it.)

and this is a characterization of its own.

>But if by all that you mean to say that it's not possible to make a
>perfect anything, then I think that ordinarily goes without saying.

What I mean has been clearly stated. Adding qualifiers on my behalf
goes outside of the discussion.

>So yes, you're right.

I state nowhere that "perfect" is expected, nor do I impose that as a
condition. Can we leave these speculations outside of the discussion?

>There is no such thing as a lossless medium.

This is a non-sequitur injected for no apparent reason. Why so?

>But it is a rather simple matter to get a reasonably good match using
>this technique.

You've gone to great lengths to extrapolate and postulate what I've said, and yet fail to commend me for having said just this any number of times. Why so?

>I think you can assume that's about the degree of
>accuracy we're using for most of our discussions.

For "Total cancellation?" If you accept that, you've spent four years arguing for... what have you been arguing about? Have you allowed this slack you accept in our behalf for your own positions? However, I am used to the "debate" that proceeds along these lines where "Totality" has been proven, accepted and it leads to nonsensical theories like waves reflecting waves.

73's
Richard Clark, KB7QHC

3869. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 22:27:13 UTC
From: richardharrison@webtv.net
Message-ID: <9528-42F144C1-24@storefull-3256.bay.webtv.net>
Source record: 72236

Richard Clark, KB7QHC wrote:
"I have a D Cell battery whose capacity is 3 W-HR, and I roll it along the floor. Has power flowed?"

Reminds me of a point made by Tom Whitaker, a two-handed blackboard scribe and celebrated E.E. Prof I had over 1/2 century ago. Tom wrote with one hand and erased with the other so he would have a clear space to write more.To drive home his definition of current, Tom spat on a piece of chalk and chunked it with vigor the length of the auditorium where it bounced harmlessly from the rear wall. What an arm! Some ball club sgould have signed him.

Tom said: "That spit was charged and you`ve just seen an electric current!

Your D-cell holds much charge and rolling the cell puts charge in motion, So, yes, power has flowed because you transferred the ability to do work from one site to another.

Best regards, Richard Harrison, KB5WZI

3870. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 22:30:06 UTC
From: nm5k@wt.net
Message-ID: <1123108206.901874.184540@g47g2000cwa.googlegroups.com>
Source record: 72235

You should consider lightning, if it's common in your area.
If you take a strike at the antennas, the potential at the shack
end of that elevated coax will be huge. I would have some way
to disconnect and ground outside, if you were to do that.
In general, elevated coax is not a great idea, although there are
no "rf" problems in doing so.
MK

3871. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 22:41:59 UTC
From: jgboyles@aol.com
Message-ID: <1123108919.897441.9310@g14g2000cwa.googlegroups.com>
Source record: 72237

John N9JG wrote:
> I live in a two-story slab house with aluminum siding on the walls. Has
> anyone had any experience with mounting an external transmitting loop
> antenna (for 80 or 160 m) near aluminum siding? I am guessing it is not
> recommended, but I would be interested in any comments about this topic.

Hi John, Since it is not recommended to mount a loop antenna or any other kind, near aluminum siding, I doubt many here have done so. May not get comments about doing the undesirable.
On the other hand, a 160m full wave loop will be so large in comparison to the small section that is in proximity to the aluminum siding, you may not be able to tell much difference whether the siding is there or not. Same thing with a full wave 80m loop. I would go for it.
Gary N4AST

3872. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 22:51:03 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcrhovose1@news.service.uci.edu>
Source record: 72238

Richard Clark wrote:

> Hi Jim,
>
> This is what I mean by no argument being put forth to dispute what has
> been offered. In fact every computation offered flows from the math
> offered by ANY academic text. I even name the math used, and then use
> it. In fact, I have lead the way by offering every cogent formula
> needed to discuss this matter.

Well, to be blunt I believe you may perhaps be overestimating the
significance of your contributions on this subject, Richard.

> I see no dispute in the assignment of indices of reflection. I see no
> dispute in the computation of reflections. I see no dispute in the
> balance of energy at each interface. And I am speaking of
> quantitative results, not presumptions.

I've seen dispute of your numbers. Cecil had them right. Cecil is very
good at getting the numbers right. I even agree with the solutions to
his irradiance equations. He and I disagree only on certain details of
the physical mechanism (though he seems to want to disagree with just
about anything I have to say).

>>But if by all that you mean to say that it's not possible to make a
>>perfect anything, then I think that ordinarily goes without saying.
>>There is no such thing as a lossless medium.
>
>
> This is a non-sequitur injected for no apparent reason. Why so?

Start with a presumption that it is not a non sequitur and see where
that leads. I've reassembled my original statement above for your review.

>>I think you can assume that's about the degree of
>>accuracy we're using for most of our discussions.
>
>
> For "Total cancellation?" If you accept that, you've spent four
> years arguing for... what have you been arguing about? Have you
> allowed this slack you accept in our behalf for your own positions?

The relevance of the "non sequitur" stated above thereby makes itself
apparent. There are several reasons why it is difficult to achieve
total cancellation of reflected light at an optical surface. First -
the obvious one. A quarter wave layer is only a quarter wavelength
thick at one wavelength. Second - dielectric films can be lossy. Third

- anti-reflection is only 100% effective at normal incidence. Fourth - it's next to impossible to make a film that has a refractive index which is the perfect geometric mean of the indices of the media at its boundaries.

A thorough treatment of all the reflections at both boundaries, whereby all in-phase reflections in a given direction are summed, provides that absent the imperfections described above, total cancellation is indeed a fact. Another fact is that it's much easier to accomplish in a transmission line with monochromatic RF at HF.

> However, I am used to the "debate" that proceeds along these lines
> where "Totality" has been proven, accepted and it leads to nonsensical
> theories like waves reflecting waves.

If I were to characterize most of the discussion I've had here, I would say most of it has been spent addressing misunderstandings related to the fundamental behavior of nature.

73, Jim AC6XG

3873. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 23:07:32 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dcrini$cf2$1@mailhub227.itcs.purdue.edu>
Source record: 72239

Thanks for your comments, but a full-wave loop antenna is much larger than I had in mind. The ARRL Antenna Book contains a write-up about a loop antenna that is 100 feet in total length. It is built in the shape of an octagon with 3/4" copper pipe, and contains a capacitor in series with the side directly opposite the fed side. The loop is mounted with its plane vertical, and the fed side perhaps a foot off the ground so the lawn mower can go under it. The capacitor has to be tuned remotely and has to have a rather large voltage rating. The article implies the antenna has a 2:1 tuning range.

An alternative one-band antenna is the DLM antenna and might be worth trying. See
http://www.uri.edu/news/vincent/boxboro_files/frame.htm

<jgboyles@aol.com> wrote in message
news:1123108919.897441.9310@g14g2000cwa.googlegroups.com...
>
> John N9JG wrote:
>> I live in a two-story slab house with aluminum siding on the walls. Has
>> anyone had any experience with mounting an external transmitting loop
>> antenna (for 80 or 160 m) near aluminum siding? I am guessing it is not
>> recommended, but I would be interested in any comments about this topic.
>
> Hi John, Since it is not recommended to mount a loop antenna or any
> other kind, near aluminum siding, I doubt many here have done so. May
> not get comments about doing the undesirable.
> On the other hand, a 160m full wave loop will be so large in
> comparison to the small section that is in proximity to the aluminum
> siding, you may not be able to tell much difference whether the siding
> is there or not. Same thing with a full wave 80m loop. I would go for
> it.
> Gary N4AST
>

3874. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 23:21:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f15272$1_2@spool9-west.superfeed.net>
Source record: 72240

Jim Kelley wrote:
> But some folks have argued descriptions of physical phenomena derived
> from an assumption that the number displayed on the calculator
> physically propagates through a transmission line, physically reflects
> off the ends of the transmission line or other discontinuities, and
> physically interferes with itself or other numbers like it.

If you think that's what I said, you are suffering from delusions.
All of my power components exist at a stationary point or plane.
The two components associated with wave cancellation exist at the match
point. "Reflected power" is the reflected energy flow per unit time
measured at a point by a stationary directional wattmeter. "Forward
power" is the forward energy flow per unit time measured at a point
by a stationary directional wattmeter.

Power components do not interfere. It is the E-fields and H-fields
that do the interferring. However, given the interference of two
coherent waves traveling in the same direction, the following
power equation is valid.

Ptotal = P1 + P2 + 2*sqrt(P1*P2)cos(phi)

where phi is the phase angle between the two E-fields. The last
term in that equation is well known as the "interference term".
If cos(phi) is negative, the interference is destructive. If
cos(phi) is positive, the interference is constructive. If an
additional source of energy is not present at the interference
point, the destructive interference must equal the constructive
interference to satisfy the conservation of energy principle.

Like I said before, the only disagreement that we have left is
whether dt is zero or infinitessimally small. Your straw men
are just straw men designed to mislead the uninitiated.

Note that Richard Clark is NOT using the above power equation
and is instead trying to superpose powers which is an invalid
practice. That's why he's calculating the wrong values.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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3875. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 23:27:24 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <wpcle.754$646.584@newssvr22.news.prodigy.net>
Source record: 72241

John,
For what it's worth (not much), I used to run a 1/2 wave dipole over a metal roof. It worked. The input impedance was reasonable, certainly not the best, but reasonable. Your loop wuold show some directionality, I would think, but that may/may not be 'bad', and the input impedance ought to be adjustable with the capacitor, sort of, maybe. Also ran a full wave 80 meter loop around a building with aluminum siding. Had pretty fair clearance all around, so didn't really affect things much (I'm sure it did, but it worked so who cared?). Give it a shot, see what happens, then tell us!
'Doc

3876. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-03 23:56:25 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <tLOdnezS58E0xGzfRVn-uw@speakeasy.net>
Source record: 72242

As an alternative to running the feelines of my proposed multiple antennas (dipoles, vee beam, etc.) in parallel 250 feet from the back pasture, I've come up with an idea for remotely switching the feedlines. Here's the idea for handling multiple open wire lines...switch them remotely using only the center of the coax fittings on a remote coax antenna switch (the type that switch 4, 6, or 8 coax antennas).
This might be accomplished at least three ways:
1) just hook one side of all the feedlines together and switch the other one by plugging them (using banana plugs or similar) into the center conductor of the coax fittings
2) have two coax switches, so that both sides of the feedlines are kept separate and switched by throwing two coax switches in synchronization.
Which of these would work best, or neither? Would the impedence bump cause any significant problem? Has someone actually tried this? What about proximity between the feedlines gathered around the switches...would that cause significant problems at the legal limit (I notice Cecil's switch design has them pretty close to each other...but not this close)?
3) give up and go back to parallel lines until they reach the shack and switch them with banana plugs.
One kind person responded privately with a picture of W6AM's home showing the independent openwire feed lines going into the house about 8 different places spaced about 2.5 feet apart, obviously to either dedicated tuners/rigs or some horrendous switching network that was knife thrown. I really don't want to do that, if I can avoid it.
This all is getting so complex, to presere my sanity and pocket book I might just be forced to go back to resonant antennas on all bands so I can use coax without undo loss! Hi!
73,
Greg, N6GK

3877. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 00:07:40 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcrm8lqqp1@news.service.uci.edu>
Source record: 72243

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> But some folks have argued descriptions of physical phenomena derived
>> from an assumption that the number displayed on the calculator
>> physically propagates through a transmission line, physically reflects
>> off the ends of the transmission line or other discontinuities, and
>> physically interferes with itself or other numbers like it.
>
>
> If you think that's what I said, you are suffering from delusions.

Perhaps I was deluded by all your arguing about it. :-)

> Power components do not interfere.

Glad you finally agree.

> It is the E-fields and H-fields
> that do the interferring.

Is there an echo in here?

> However, given the interference of two
> coherent waves traveling in the same direction, the following
> power equation is valid.
>
> Ptotal = P1 + P2 + 2*sqrt(P1*P2)cos(phi)
> where phi is the phase angle between the two E-fields.

Right. That's simply because P is proportional to E^2.

> The last
> term in that equation is well known as the "interference term".

Basically, yes. Two times the product of the two fields is the
interference term. The product of two things which don't interfere is
probably inappropriately referred to as an interference term.

> If cos(phi) is negative, the interference is destructive. If
> cos(phi) is positive, the interference is constructive. If an
> additional source of energy is not present at the interference
> point, the destructive interference must equal the constructive
> interference to satisfy the conservation of energy principle.

....and by virtue of the fact that 2*sqrt(P1*P2) = 2*sqrt(P1*P2). ;-)

> Like I said before, the only disagreement that we have left is
> whether dt is zero or infinitessimally small.

As I recall, my disagreement with you was about your claim that
"interference causes energy to reverse direction and go the other way".
That's what it's always been about, Cecil.

Do you still insist that's what happens? If not, then we're in
agreement - unless you disagree, of course.

> Your straw men
> are just straw men designed to mislead the uninitiated.

Actually the "straw men" seem to have brought you around substantially
to the correct point of view. And I really don't think anyone who's
been paying attention is misled about you, Cecil. :-)

73, ac6xg

3878. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 00:42:22 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dcro9dfkm1@mailhub227.itcs.purdue.edu>
Source record: 72244

Thanks for your encouragement.

"'Doc" <w5lz@cwis.net> wrote in message
news:wpcIe.754$646.584@newssvr22.news.prodigy.net...
> John,
> For what it's worth (not much), I used to run a 1/2 wave dipole
> over a metal roof. It worked. The input impedance was reasonable,
> certainly not the best, but reasonable. Your loop wuold show some
> directionality, I would think, but that may/may not be 'bad', and
> the input impedance ought to be adjustable with the capacitor, sort
> of, maybe. Also ran a full wave 80 meter loop around a building
> with aluminum siding. Had pretty fair clearance all around, so didn't
> really affect things much (I'm sure it did, but it worked so who
> cared?). Give it a shot, see what happens, then tell us!
> 'Doc

3879. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 00:48:12 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <d4p2f11k8e1mqhgullj2t6seok5dg4srmi@4ax.com>
Source record: 72245

On Wed, 3 Aug 2005 16:56:25 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:
[snip]

>This all is getting so complex, to presere my sanity and pocket book I might
>just be forced to go back to resonant antennas on all bands so I can use
>coax without undo loss! Hi!

There you go. Run a piece of Heliax out there and use one of your
coax relays as it was intended.

Even at SWR = 3:1 @ 28 MHz, 200' of 1/2" Heliax will lose only about a
dB. Use 7/8" line and you could stand 5:1 for less than a dB.

3880. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 01:19:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ckq2f19tr7sbjvro7u84c95nqg6tksif9q@4ax.com>
Source record: 72246

On Wed, 03 Aug 2005 15:51:03 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>> This is what I mean by no argument being put forth to dispute what has
>> been offered. In fact every computation offered flows from the math
>> offered by ANY academic text. I even name the math used, and then use
>> it. In fact, I have lead the way by offering every cogent formula
>> needed to discuss this matter.
>
>Well, to be blunt I believe you may perhaps be overestimating the
>significance of your contributions on this subject, Richard.

Hi Jim,

Well, being blunt offers no more argument than previous statements of
prejudice. And the point of the matter is I've observed no one here
offer any math in advance of my presentation. If this is
overestimating any significance, it certainly puts everything else in
the shade.

>> I see no dispute in the assignment of indices of reflection. I see no
>> dispute in the computation of reflections. I see no dispute in the
>> balance of energy at each interface. And I am speaking of
>> quantitative results, not presumptions.
>
>I've seen dispute of your numbers. Cecil had them right.

And yet and all, you have nothing at your fingertips:

A dispute over indices of refraction? Nada.

A dispute over reflection? Nada.

A dispute over balanced energy equations? Nada.

All rather first principles and central to the discussion. It takes
very little effort to unscramble a half page of text if I've so messed
it up; but I am content to see you are aligned with Cecil's argument
and to watch where that leads. :-)

It could lead to another fruitful 4 years of

debate?

73's
Richard Clark, KB7QHC

3881. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:00:51 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcrssljb1@news.service.uci.edu>
Source record: 72247

Richard,

Try the link. See if it reminds you of anything. :-)

jk

http://www.montypythonpages.com/index1.htm

Richard Clark wrote:

> On Wed, 03 Aug 2005 15:51:03 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>>This is what I mean by no argument being put forth to dispute what has
>>>been offered. In fact every computation offered flows from the math
>>>offered by ANY academic text. I even name the math used, and then use
>>>it. In fact, I have lead the way by offering every cogent formula
>>>needed to discuss this matter.
>>
>>Well, to be blunt I believe you may perhaps be overestimating the
>>significance of your contributions on this subject, Richard.
>
>
> Hi Jim,
>
> Well, being blunt offers no more argument than previous statements of
> prejudice. And the point of the matter is I've observed no one here
> offer any math in advance of my presentation. If this is
> overestimating any significance, it certainly puts everything else in
> the shade.
>
>
>>>I see no dispute in the assignment of indices of reflection. I see no
>>>dispute in the computation of reflections. I see no dispute in the
>>>balance of energy at each interface. And I am speaking of
>>>quantitative results, not presumptions.
>>
>>I've seen dispute of your numbers. Cecil had them right.
>
>
> And yet and all, you have nothing at your fingertips:
>
> A dispute over indices of refraction? Nada.
>
> A dispute over reflection? Nada.

>
> A dispute over balanced energy equations? Nada.
>
> All rather first principles and central to the discussion. It takes
> very little effort to unscramble a half page of text if I've so messed
> it up; but I am content to see you are aligned with Cecil's argument
> and to watch where that leads. :-)
>
> It could lead to another fruitful 4 years of
>
> debate?
>
> 73's
> Richard Clark, KB7QHC

3882. Re: F5VKM - New antennas ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:17:04 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f17aa0$0$22201$39cecf19@news.twtelecom.net>
Source record: 72248

The hustler wrote:

> I'm English too, one of the 400,000 that currently live in France!
>

My sympathies. If you need contributions for the trip home, please
contact me.

tom
K0TAR

3883. Re: 40 meter pirate radio,1710.am qrp need ant ideas.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:36:15 UTC
From: Bob <BobsJunkMail@bellsouth.net>
Message-ID: <b9fIe.11161$Mo.5463@bignews5.bellsouth.net>
Source record: 72249

"drwxr-xr-x" <nobody@frontier.net> wrote in message
news:slrndev7pr.27st.bit-bucket@shell.config.com...
> On Tue, 2 Aug 2005 03:01:16 -0500, Pirate Radio wrote:
>> need ant for my station thinking about a very long wire ant i have lots
>> of acres so it dont matter listen out for my station playing all kinds
>> of music no black crap only pure classic rock and southern rock ozzie
>> stuff like that and preaching from rev moore where i go to church i
>> almost off my meds the radio helps me out tv freaks me out only will
>> will run qrp about 5 watts or less maybe once a month i will broadcast
>> anyway good luck on dxing hope u here me funny farm radio
>
> Isn't it frightening when the hopelessly illiterate are found playing
> with sophisticated technology?
Awww.... Come on. Maybe he can get one of the Opie and Anthony golden
tickets. http://tinyurl.com/dz2bm

3884. Re: APRS and voice - mobile configuration

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:39:51 UTC
From: Bob <BobsJunkMail@bellsouth.net>
Message-ID: <zcfle.11215$Mo.446@bignews5.bellsouth.net>
Source record: 72250

I run FT 8800 on a stick roughly over the front seats, and a 30 watt maxtrac
for APRS on a stick about a foot from the back end of the roof of my Town
and Country. I get completely desensed when the maxtrac transmits, but it
hasn't hurt the Yaesu yet.
"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:dc6btr$bt1$1@engnntp2.cig.mot.com...
> Many do this and don't worry about it. I have not heard of anyone hurting
> a
> receiver. I would, however, keep the antennas as far apart as possible.
>
> One thing. The APRS transmitter should be kept as low as possible and
> still
> get the desired results.
>
> You can also sign up to the tapr list and query the Gurus.
> https://lists.tapr.org/mailman/listinfo
>
>
>
> 73, Steve, K9DCI
>
>
> <pgardella@gmail.com> wrote in message
> news:1122054980.698869.195170@o13g2000cwo.googlegroups.com...
>> There are times when Google search is great, and others where it fails
>> me. This is one of those situations.
>>
>> I'm trying to find out what people recommend for handling both APRS and
>> voice radios in the same vehicle. I want to have two separate rigs,
>> one dedicated to APRS, the other for normal voice comms. I'm concerned
>> about receiver overload and frying one of the rigs when the other is
>> transmitting at high power.
>>
>> The rigs are modern (Yeasu FT-2800 for APRS and Yeasu FT-8900 for
>> voice). Would the intermod rejection of these two rigs protect them?
>> I'd rather not set up a cavity or other expensive filters.
>>
>> How do others have this setup in place?
>>
>> 73,
>> patrick
>>
>
>

3885. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:42:31 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <i003f1921m9s7eufg75nsq0i2k26ner1b9@4ax.com>
Source record: 72251

On Wed, 3 Aug 2005 16:56:25 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

This may or may not help, but FWIW, MFJ makes an (indoor) antenna
switch that handles six balanced feedlines. May help if you run
several lines to your house...

bob
k5qwg

3886. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:46:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f1827b$1_1@spool9-west.superfeed.net>
Source record: 72252

Jim Kelley wrote:
> Perhaps I was deluded by all your arguing about it. :-)

I'm saying, "I agree" and you are saying, "No, you don't"
so who's doing the arguing? Here's an example from a posting
way back in 2004:

****
Jim Kelley wrote:
> The crux of
> the phenomenological problem is that power does not flow or move, nor is
> it something that is reflected.

But energy does flow and move and is something that can be reflected.
****

In that posting, I am agreeing with you but your delusions make
you assert to this very day that I was arguing with you.

>> Power components do not interfere.
>
> Glad you finally agree.

I have never said otherwise. I often identify the wave component
by the power figure, but it is *only a name* used to identify
an EM wave. When I say, "The 50 watt wave interferes with the
25 watt wave", I'm not saying that 50 watts interferes with
25 watts. It's the *waves* that interfere, not the watts!
Why is that so hard for you to comprehend?

>> Ptotal = P1 + P2 + 2*sqrt(P1*P2)cos(phi)
>> where phi is the phase angle between the two E-fields.
>
> Right. That's simply because P is proportional to E^2.

I'm glad you finally agree after arguing against it for years.
(See, two can play your junevile game.)

>> The last
>> term in that equation is well known as the "interference term".
>
> Basically, yes. Two times the product of the two fields is the
> interference term.

The interference is in the units of power, e.g. joules/sec.
It is two times the square root of the product of the two powers
associated with the two interferring waves. It is the result

of superposition of two coherent EM waves. As I said before,
it is the waves that interfere, NOT the powers.

>The product of two things which don't interfere is
> probably inappropriately referred to as an interference term.

Your argument is with Hecht and other scientists, physicists,
and engineers who use that convention, not just with me. You
would have made a good lawyer since you seem to object to
virtually everything. :-)

>> Like I said before, the only disagreement that we have left is
>> whether dt is zero or infinitessimally small.
>
> As I recall, my disagreement with you was about your claim that
> "interference causes energy to reverse direction and go the other way".
> That's what it's always been about, Cecil.

Destructive interference in one direction in a transmission line
results in constructive interference in the opposite direction.
Anything else would violate the conservation of energy principle.
Our argument is whether destructive interference has time to happen,
i.e. how many calculus dt's can dance on the head of a pin. :-)

Whether interference can cause energy to reverse direction or not
depends upon whether dt equals zero as you imply, or whether dt equals
an infinitessimally small amount of time as I say. That's what it's
always been about, Jim.

> Do you still insist that's what happens? If not, then we're in
> agreement - unless you disagree, of course.

If dt is an infinitessimally small amount of time, then that is
exactly what happens. If dt equals zero, then it doesn't have
time to happen. Your argument is that it doesn't have time to
happen because "there is no before and after". (a quote from your
email). I say there is a before, now, and after divided into
infinitessimally small dt's of time and when added together,
actually perform the function of representing the flow of time.
So are you going to assert that time also doesn't flow?
--
73, Cecil http://www.qsl.net/w5dxp

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3887. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 02:49:15 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1123123755.744537.151630@g14g2000cwa.googlegroups.com>
Source record: 72253

I had thought about the problems with lightning. I purchased the
version of the rcs8v with lightning protection for each of the antennas
connected to it. I will also have additional lightning protection
before the coax enters the building. Hopefully my station won't end up
being the best path to ground.
Thanks for the responses,
Rob Brown
kb8wws

3888. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:11:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dcs104ebr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72255

From your description the antenna is a 100-foot-perimeter magloop for
160 and 80 meters. With a 3/4" diameter conductor it will do fine.

Provided it is not facing and very near to the side of the house it
should tune up and work OK. Have the plane of the loop at
right-angles to the siding, NOT parallel to it. If you can't manage
this then don't bother erecting it.

I would not like to see the edge of the loop any nearer to the siding
than 1/4 or 1/5 of its diameter. (Apparently it is intended to work
within a few feet of the ground.)

Aluminium is a good conductor, nearly as good as copper. Negligible
loss will be induced in it. Most loss will be in the ground by virtue
of its very low height. The close proximity to ground will also cause
unoticeable detuning.

The presence of the siding will slightly detune the antenna but you
will not notice the difference because there is no way to make a
comparison. But if there is an intermittent contact between the
siding and other walls or metal roof of the house you can expect
trouble. Magloops are VERY sharply tuned!

The radiation pattern may be considerably different from normal. But
again, you will not be aware of it. The broad lobe in one direction in
the plane of the loop may be stronger at the expense of the opposite
direction towards the house.

I have myself run a near-to-ground 160-meter magloop very near to the
brick wall of the house and experienced the detuning which I assume
was due to being adjacent to internal domestic plumbing and house
wiring. The effect disappears when the loop is half its diameter away
from foreign conductors.

The performance of your proposed loop in normal surroundings can be
investigated by easy-to-use program MAGLOOP4 which can be downloaded
from the website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

==========

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:dcrini$cf2$1@mailhub227.itcs.purdue.edu...
> Thanks for your comments, but a full-wave loop antenna is much
larger than I
> had in mind. The ARRL Antenna Book contains a write-up about a loop
antenna
> that is 100 feet in total length. It is built in the shape of an
octagon
> with 3/4" copper pipe, and contains a capacitor in series with the
side
> directly opposite the fed side. The loop is mounted with its plane
vertical,
> and the fed side perhaps a foot off the ground so the lawn mower can
go
> under it. The capacitor has to be tuned remotely and has to have a
rather
> large voltage rating. The article implies the antenna has a 2:1
tuning
> range.
>
> An alternative one-band antenna is the DLM antenna and might be
worth
> trying. See
> http://www.uri.edu/news/vincent/boxboro_files/frame.htm
>
> <jgboyles@aol.com> wrote in message
> news:1123108919.897441.9310@g14g2000cwa.googlegroups.com...
> >
> > John N9JG wrote:
> >> I live in a two-story slab house with aluminum siding on the
walls. Has
> >> anyone had any experience with mounting an external transmitting
loop
> >> antenna (for 80 or 160 m) near aluminum siding? I am guessing it
is not
> >> recommended, but I would be interested in any comments about this
topic.
> >
> > Hi John, Since it is not recommended to mount a loop antenna or
any
> > other kind, near aluminum siding, I doubt many here have done so.
May
> > not get comments about doing the undesirable.
> > On the other hand, a 160m full wave loop will be so large in
> > comparison to the small section that is in proximity to the
aluminum
> > siding, you may not be able to tell much difference whether the
siding
> > is there or not. Same thing with a full wave 80m loop. I would
go for
> > it.

> > Gary N4AST
> >
>
>

3889. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:12:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f18896$1_1@spool9-west.superfeed.net>
Source record: 72254

Richard Clark wrote:
> When the energy available in the first medium, at the second
> interface, cannot possibly reflect enough of it to the first
> interface; then no amount of superposition of ALL reflections (and
> this presumes that the second interface is fully reflecting for these
> succeeding multiples, an absurd notion in its own right) can exceed
> that available energy.
>
> Yes, this has all been said before, you've found it interesting but
> not compelling; and yet no one here has offered any way to boost the
> energy to completely cancel the reflection from the first interface.

I have multiple times, Richard. When a 111.1mW wave interferes with
an 87.78mW wave, the result is *NOT* a 23.32mW wave. It's the waves
that interfere, not the power.

111.1mW - 87.78mW = 23.32mW is superposition of powers and is invalid!

Instead of superposing powers, the equation you need to use is the
power interference equation:

Pref1 = P1 + P2 + 2*sqrt(P1*P2)cos(180)

Pref1 = 111.1mW + 87.78mW + 2*sqrt(111.1*87.78)(-1)

Pref1 = 198.88mW - 197.51mW = 1.37mW

Thus after only one internal reflection cycle, the reflected power,
Pref1, is reduced to 1.37mW, not to 23.32mW as you have asserted.

If you will use a transmission line example and deal with voltages, you
will be able to diagnose your mistake. Voltages interfere, watts don't.
Most RF engineers simply do not understand how to deal with powers
associated with component wave interference.
--
73, Cecil http://www.qsl.net/w5dxp

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3890. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:14:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f18927$1_1@spool9-west.superfeed.net>
Source record: 72256

Richard Clark wrote:
> I see no dispute in the balance of energy at each interface.

Conclusion: You have to be blind.
--
73, Cecil http://www.qsl.net/w5dxp

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3891. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:25:43 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <JKKdneAoGI4kF2zfRVn-uA@speakeasy.net>
Source record: 72257

In answer to your questions below, I would expect to only use one antenna at a time, switching between them when wanting to use a different antenna or directivity.

I would expect to use banana plugs to short the unused antennas to ground just outside the shack, hooking up only the one to be used. I don't like the idea of having an ungrounded feedline...lightning/static discharge hurts!

The open wire/coax question is a good one. Some of my antennas will be open wire (vee beam, center fed 80 meter dipole for 80-10 meters), but others, another dipole for 80 at 90 degrees and 150 foot separation is resonant and fed with coax, while I have two verticals fed with coax, plan to experiment with wire LPDAs, etc. So I am trying to think this thing through now, especially in buying a tuner, as I can't afford both a Balanced tuner (ala Palstar BT1500BAL) and an Unbalanced L tuner (TenTec 238B).

I feel like I have gotten a college education on balanced feeds and it's caused me to reevaluate if that is really the easiest way to go. I started out thinking about using just ONE antenna (80 or 160 dipole center fed with 600 ohm line) up about 75 feet on a 45 foot light weight tower and 30 feet of mast above that. I liked the gain on the higher (20-10 meter) bands, but the patterns wouldn't all be in the directions I want given the orientation I have available for the antenna. So I started thinking about TWO such antennas, with the second one on a 40 foot pushup mast. The I thought about adding the Vee Beam I used to have long ago...really worked well on 20-10...definitely a good antenna with the 2 acres I have. And so forth. As most of these antennas would be for multiband use, a balanced tuner would be ideal, but then I had the questions of how to route the feedlines to keep them out of the other antenna fields and away from each other. Having always used coax, this is starting to seem like a nightmare. I almost think the best is to do as one gent suggested, just put in an 80 meter or 160 meter loop, feed it with 450 or 600 ohm, and all it a day.

As I am no longer an avid DXer (used to have stacked beams for 10 through 40), but enjoy chatting on all modes on all bands, with reasonably good signals, I think perhaps at the end of the day maybe the two 80 meter dipoles at right angles (roughly forming an L from a top view) but about 100 feet apart, with one at 75 feet and the other at 40 feet might be the solution, fed with 600 ohm to EITHER a balun-coax-L tuner or direct to a balanced tuner. Good enough is good enough. Of course, I just know I'll throw back up the 300 foot Vee Beam for 20 through 10 at some point, health permitting.

Oh, so many choices and dreams! I think I am going to start small, probably the dipole at 40 feet 350 feet away. That will satisfy until I get the tower refurbished and up in September. The reason I have had so many questions is

because I am trying to foresee what my needs will be a year from now...I
don't want to say, gee, I should have thought of that!

73,

Greg, N6GK

> I probably have more questions than answers.
>
> 1. Are the antennas to be operated independently? Is this a duplex or
> diversity system?
>
> 2. Will the unused lines be terminated in the shack?
>
> 3. Are these multiband antennas with tuned feeders or could they just
> as easily be coax-fed?
>
> 4. What do you consider to be detrimental interaction?
>
>
> As others have suggested, there will be coupling between the antennas,
> so feedline-to-feedline isolation will not necessarily be a figure of
> merit.
>
> If you consider the impedance change of a single pair of wires
> operated over ground as a proxy for interaction, then with separation
> by 3 or 4 times the wire spacing, you are probably okay for all but
> the most critical situations.
>
> One test would be to excite one line and measure the power in an
> adjacent line, remembering that some (a lot?) of the coupling will be
> antenna-to-antenna and will also be frequency dependent.

3892. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:33:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f18d8f$1_2@spool9-west.superfeed.net>
Source record: 72258

Jim Kelley wrote:
> I've seen dispute of your numbers. Cecil had them right. Cecil is very
> good at getting the numbers right. I even agree with the solutions to
> his irradiance equations. He and I disagree only on certain details of
> the physical mechanism (though he seems to want to disagree with just
> about anything I have to say).

I say, "I agree with you". You say, "No, you don't". So exactly
who is being disagreeable?

> If I were to characterize most of the discussion I've had here, I would
> say most of it has been spent addressing misunderstandings related to
> the fundamental behavior of nature.

Nope, most misunderstandings are semantic. Most of our arguments
have been because you misunderstood what I was trying to say and
that unfortunate condition continues. You don't seem to possess
the normal human capacity to say, "Sorry, I misunderstood".
(I wonder if God is capable of misunderstanding?)
--
73, Cecil http://www.qsl.net/w5dxp

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3893. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:35:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f18e07$1_2@spool9-west.superfeed.net>
Source record: 72259

Richard Clark wrote:
> A dispute over balanced energy equations? Nada.

On the contrary - a gigantic dispute over your invalid
attempts to superpose powers.
--
73, Cecil http://www.qsl.net/w5dxp

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3894. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 03:44:54 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b9cd7$42f18f3e$438df2d2$415@ALLTEL.NET>
Source record: 72260

Cecil, check this months QST (August 2005) Page 52 - figure 5. It
specifically shows that reflections can totally cancel creating black.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42f18896$1_1@spool9-west.superfeed.net...
> Richard Clark wrote:
> > When the energy available in the first medium, at the second
> > interface, cannot possibly reflect enough of it to the first
> > interface; then no amount of superposition of ALL reflections (and
> > this presumes that the second interface is fully reflecting for these
> > succeeding multiples, an absurd notion in its own right) can exceed
> > that available energy.
> >
> > Yes, this has all been said before, you've found it interesting but
> > not compelling; and yet no one here has offered any way to boost the
> > energy to completely cancel the reflection from the first interface.
>
> I have multiple times, Richard. When a 111.1mW wave interferes with
> an 87.78mW wave, the result is *NOT* a 23.32mW wave. It's the waves
> that interfere, not the power.
>
> 111.1mW - 87.78mW = 23.32mW is superposition of powers and is invalid!
>
> Instead of superposing powers, the equation you need to use is the
> power interference equation:
>
> Pref1 = P1 + P2 + 2*sqrt(P1*P2)cos(180)
>
> Pref1 = 111.1mW + 87.78mW + 2*sqrt(111.1*87.78)(-1)
>
> Pref1 = 198.88mW - 197.51mW = 1.37mW
>
> Thus after only one internal reflection cycle, the reflected power,
> Pref1, is reduced to 1.37mW, not to 23.32mW as you have asserted.
>
> If you will use a transmission line example and deal with voltages, you
> will be able to diagnose your mistake. Voltages interfere, watts don't.
> Most RF engineers simply do not understand how to deal with powers
> associated with component wave interference.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet

News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3895. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 05:11:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h183f1d5mdp8gk0a0sq39b1r5hofd2m8jj@4ax.com>
Source record: 72261

On Wed, 03 Aug 2005 19:00:51 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>Try the link. See if it reminds you of anything. :-)
>http://www.montypythonpages.com/index1.htm

not nearly as funny as:
>On Wed, 03 Aug 2005 22:33:17 -0500, Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>Jim Kelley wrote:
>>> I've seen dispute of your numbers. Cecil had them right. Cecil is very
>>> good at getting the numbers right. I even agree with the solutions to
>>> his irradiance equations. He and I disagree only on certain details of
>>> the physical mechanism (though he seems to want to disagree with just
>>> about anything I have to say).
>>
>>I say, "I agree with you". You say, "No, you don't". So exactly
>>who is being disagreeable?

It didn't take long for your legacy to arrive. The group can welcome
the ushering in of another 4 years of love letters in the sand.

73's
Richard Clark, KB7QHC

3896. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 05:15:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4d83f1tq1m3nf4hf47jb2nenmspf0d8s01@4ax.com>
Source record: 72262

On Wed, 3 Aug 2005 23:44:54 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Cecil, check this months QST (August 2005) Page 52 - figure 5. It
>specifically shows that reflections can totally cancel creating black.
>
>
>"Cecil Moore" <w5dxp@hotmail.com> wrote in message
>news:42f18896$1_1@spool9-west.superfeed.net...
>> Pref1 = 198.88mW - 197.51mW = 1.37mW

Hi Fred,

You've missed the point entirely, the equation above already consigns
1.37mW to total darkness. Or any other non-zero result is reduced to
zero for rhetoric's sake (I will skip the love fest of agreement that
did not blossom).

Odd how far this got with everyone presuming that these powers,
energies, or candelas per square foot per fortnight were visible in
the first place (perhaps to some breed of Ubermensch). They happen to
inhabit the deep infra-red.

73's
Richard Clark, KB7QHC

3897. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 05:21:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l593f1p7uokprlm2h2j95v13ul2pr64ugo@4ax.com>
Source record: 72263

On Wed, 03 Aug 2005 21:46:01 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Jim Kelley wrote:
>> Perhaps I was deluded by all your arguing about it. :-)
>I'm saying, "I agree" and you are saying, "No, you don't"
>so who's doing the arguing?

Classic Katzenjammer. More succinct than the "Who's on first base?"
math.

3898. The Reality Compared to Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 05:47:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sl93f15025sjkj29cb32j1q16ve709a9mf@4ax.com>
Source record: 72264

Well, given the tremendous correspondence that attended the other
threads, dare I pause to offer something from the realm of the real?

Yeah, a joke given the classic divergence from topic that inhabited
them. One thing was painfully obvious in such discussion of "seeing"
or rendering reflections "invisible" that inhabited the last
discussion. Here I will offer what is taken for granted in the
optical world, solar cells are largely confined to energies that are
not visible. Very little of the Sun's energy is. This is a natural
conflict between perception and reality - but it is in harmony with
the objections I've observed. ;-)

Returning again to the solar cell, described in text as:

```
1w | 1/4WL |
laser-----air-----|---thin-film---|---Germanium---...
1st medium | 2nd medium | 3rd medium
n = 1.0 n = 2 n = 4.04
```

where the second medium might be Arsenic trisulfide glass or Lanthanum
flint glass.

When you take the intensity times the area for both the reflected and
refracted beams, the total energy flux must equal that in the incident
beam. That equation appears as:
(rï¿½ + (tï¿½ ï¿½ n2ï¿½ ï¿½ cos(theta-t) / n1ï¿½ ï¿½ cos(theta-i))) = 1

It stands to reason that this can be quickly reduced without need to
use transcendentals for an angle of incidence of 0ï¿½ (which results in
a refractive angle of 0ï¿½). All that needs to be known are the
coefficients which for that same angle simplify to
r = 0.667 a value that is the limit of an asymptote;
it is also invested with either a + or - sign depending
upon the polarization (another issue that was discarded
in the original discussion as more unknown than immaterial)
t = 0.667. a value that is the limit of an asymptote;
here, too, there are polarization issues we will discard as
before. All this discarding comes only by virtue of squaring:
rï¿½ = 0.445
tï¿½ = 0.445
I presume that the remainder of the math can be agreed to exhibit:
that part of the energy reflected amounts to 11%
and that part of the energy transmitted amounts to 89%.

The discussion in how the second interface does not have enough incident energy to completely cancel the first interface reflection has been established in earlier threads. What follows is how this correlates to current optical designs to resolve this (industry and academia is not shy in this effort). They, unfortunately, lack the cavalier mentality to simply dismiss their problems as "invisible."

There are several methods of thin film construction, what has been described above, and diffraction on periodic grating. With the work at the Walter Schottky Institute, reflection on bare, highly polished material varies between 11% and 60%. When married to a glass thin film as described above, the variation smooths out to between 6% and 8%(comparable to the example above, but instead using SiGe alloys without regard to quarterwave mechanisms).

When the same researchers employ amorphous silicon on ZnO (again with the mechanics of layering much as described above - still without regard to quarterwave mechanisms), then the average reflection still resides in the region of 10%.

These results are in comparison to the native reflection values of 30% to 50% across 80% of their BW. So, without reliance on this presumption of interference wave mechanics, the practitioners in the art manage to better their performance by five fold - but quite far from absolute.

When we return to study the wave mechanics, we can understand why developers are going for the simpler, diffraction techniques - the wave mechanics are a bust.

Work at the National Renewable Energy Laboratory reveals the purpose of their goal:
"Although highly efficient double and triple layer AR coatings are available, most manufactured crystalline silicon photovoltaics employ simple and inexpensive single layer AR coatings, with relatively poor AR properties."
[AR meaning "Anti-Reflective"]

They are investigating Solar Cells with refractive indices of 3.5. As evidenced in their mission statement, the wave mechanics approach is a bust in comparison to their graded index method (a common technique in fiber optic construction for pretty much the same purpose of controlling energy). They construct the layers by increments of decreasing porosity through a continuous gradient from the index of air (1.0) through to the index of Silicon (3.5). This increases Solar Cell performance by 25% and reflectivity falls to values within 4% to 6%.

Well, two different matching mechanisms employed and they both come to roughly the same results as an answer to the failure of wave mechanics in the single, double, and multiple interference layers (some up to 20 layers). It is not surprising, but let's examine the best that there are to offer, as foretold in the mission statement offered above.

We are returning to the amorphous silicon whose native reflectance runs at 40+%. Researchers have attempted to reduce that through quarterwave thin layer interference mechanics, and at best have achieved 9% to 22% reflection (in stark contrast to the "academic" exercises offered; although conforming to the treatment above). A MgF2+SiO double-layer coating shows better reflection characteristics in some parts of the BW, poorer in others. Overall this species averaged 8% (the two methods above exhibit flatter characteristics). The best achievement through careful selection of materials (MgF2+ZnS double-layer coating) obtained reflections on the order of 2% to 4%.

73's
Richard Clark, KB7QHC

3899. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 08:25:56 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d1a0a$42f1d142$438df2d2$21239@ALLTEL.NET>
Source record: 72265

Good lord Richard, did you check the reference? It was a friggen joke!

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:4d83f1tq1m3nf4hf47jb2nenmspf0d8s01@4ax.com...
> On Wed, 3 Aug 2005 23:44:54 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Cecil, check this months QST (August 2005) Page 52 - figure 5. It
> >specifically shows that reflections can totally cancel creating black.
> >
> >
> >"Cecil Moore" <w5dxp@hotmail.com> wrote in message
> >news:42f18896$1_1@spool9-west.superfeed.net...
> >> Pref1 = 198.88mW - 197.51mW = 1.37mW
>
> Hi Fred,
>
> You've missed the point entirely, the equation above already consigns
> 1.37mW to total darkness. Or any other non-zero result is reduced to
> zero for rhetoric's sake (I will skip the love fest of agreement that
> did not blossom).
>
> Odd how far this got with everyone presuming that these powers,
> energies, or candelas per square foot per fortnight were visible in
> the first place (perhaps to some breed of Ubermensch). They happen to
> inhabit the deep infra-red.
>
> 73's
> Richard Clark, KB7QHC

3900. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 12:08:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f20664$1_2@spool9-west.superfeed.net>
Source record: 72266

Richard Clark wrote:
>>"Cecil Moore" <w5dxp@hotmail.com> wrote in message
>>>Pref1 = 198.88mW - 197.51mW = 1.37mW
>
> You've missed the point entirely, the equation above already consigns
> 1.37mW to total darkness.

No, it doesn't. 1.37mW is the total reflection AFTER ONLY
ONE INTERNAL REFLECTION DURING THE TRANSIENT STATE. The
rest of the reflection is canceled by the subsequent
reflections. The steady-state equation is:

Pref1 = P1 + P2 + 2*sqrt(P1*P2)cos(180)

Pref1 = 111.1 + 111.1 - 2*sqrt(111.1*111.1) = ZERO

P1 = Pfor1*rho^2 = 1000mW*0.1111 = 111.1mW

P2 = Pref2*(1-rho^2) = 125*0.8889 = 111.1mW

Reflections are completely canceled during steady-state!!!
YOU missed the point entirely. I was merely pointing out
the mistake you made when you got 23.32mW after the first
reflection instead of the correct 1.37mW. The interference
during the transient state is not total. The interference
during steady-state is total.
--
73, Cecil http://www.qsl.net/w5dxp

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3901. Re: The Reality Compared to Poor Concepts in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 12:13:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f2076c$1_2@spool9-west.superfeed.net>
Source record: 72267

Richard Clark wrote:
> Well, given the tremendous correspondence that attended the other
> threads, dare I pause to offer something from the realm of the real?

How can anyone trust you if you don't correct your earlier
catastrophic errors before offering something new?
--
73, Cecil http://www.qsl.net/w5dxp

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3902. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 13:05:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f213b6$1_2@spool9-west.superfeed.net>
Source record: 72268

Jim Kelley wrote:

> Cecil Moore wrote:
>> If you think that's what I said, you are suffering from delusions.
>
> Perhaps I was deluded by all your arguing about it. :-)

One day God and St. Peter were having an argument. Suddenly,
God realized that St. Peter was right and He was wrong. God's
subsequent logic went something like this:

I am God. I am omniscient. I am incapable of being wrong.
Since I now know the correct answer, I must have known it
all along. Since St. Peter was previously arguing with me,
St. Peter must have been wrong all along.

Now replace "God" in the above with "Jim Kelley" and you will
get a picture of what has been happening with our postings.

To the best of my knowledge, the only argument we have left
is whether there is enough time for wave cancellation to
actually take place. We agree on virtually everything else
technical.
--
73, Cecil http://www.qsl.net/w5dxp

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3903. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 13:16:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f2162c$1_2@spool9-west.superfeed.net>
Source record: 72269

Fred W4JLE wrote:
> Good lord Richard, did you check the reference? It was a friggen joke!

I got up from my computer, walked down the hall, dug
through a pile of magazines in the living room, and
found your reference. I turned to it and got a good
chuckle from it. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3904. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 14:31:58 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndf49mu.lm1.bit-bucket@shell.config.com>
Source record: 72270

On 3 Aug 2005 19:49:15 -0700, Rob Brown wrote:
> I had thought about the problems with lightning. I purchased the
> version of the rcs8v with lightning protection for each of the antennas
> connected to it. I will also have additional lightning protection
> before the coax enters the building. Hopefully my station won't end up
> being the best path to ground.
> Thanks for the responses,
> Rob Brown
> kb8wws

Sloppy Google posters posting without any quoted material make for
infuriating ng reading as it is. But, have 2 or more Google posters
running on as if this is a chat room is off the scale.

http://groups.google.com/googlegroups/posting_style.html#summarize
http://oakroadsystems.com/genl/unice.htm#quote

Jonesy

3905. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:04:21 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1123171461.608629.235250@f14g2000cwb.googlegroups.com>
Source record: 72271

"Sloppy Google posters posting without any quoted material make for
infuriating ng reading as it is. But, have 2 or more Google posters
running on as if this is a chat room is off the scale."

I'm so sorry that I confused you. I'll go flog myself with birtch
branches and pray until a sign from the gods of the holy news group
tell me I'm forgiven.
Thanks for the usefull information to my original posting,
Rob Brown
kb8wws

3906. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:08:49 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dcteig$9sl$1@mailhub227.itcs.purdue.edu>
Source record: 72272

I appreciate your comments very much; clearly you have had a lot of experience with antennas. There was one question in my mind about aluminum siding in contrast to plain aluminum; it is my impression that aluminum siding is anodized, and anodized aluminum is an insulator. If my impression is correct, would that make any difference in the interaction between a loop and the siding?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dcs104ebr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> Aluminium is a good conductor, nearly as good as copper. Negligible
> loss will be induced in it. Most loss will be in the ground by virtue
> of its very low height. The close proximity to ground will also cause
> unoticeable detuning.
>

3907. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:27:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kdg4f19deam9597agl9ats25be7v4q1qb0@4ax.com>
Source record: 72274

On Thu, 4 Aug 2005 04:25:56 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Good lord Richard, did you check the reference? It was a friggen joke!
>
Hi Fred,

Yes, so was my response. ;-)

73's
Richard Clark, KB7QHC

3908. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:28:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qgg4f1tpqhj8fcfacttoirds4u010qumcs@4ax.com>
Source record: 72273

On Thu, 04 Aug 2005 07:08:49 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>No, it doesn't.

Hi Fred,

This is the rest of the joke.

73's
Richard Clark, KB7QHC

3909. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:49:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dctgu3$9it$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72176

Only the surface anodizing is an insulator. Radio frequency-wise, it
may just as well not be there leaving the high conductivity aluminium
siding to behave as if the anodizing didn't exist.

If the siding was covered with a 3" layer of plastic it still wouldn't
make any difference.

Reg, G4FGQ

==========

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:dcteig$9sl$1@mailhub227.itcs.purdue.edu...
> I appreciate your comments very much; clearly you have had a lot of
> experience with antennas. There was one question in my mind about
aluminum
> siding in contrast to plain aluminum; it is my impression that
aluminum
> siding is anodized, and anodized aluminum is an insulator. If my
impression
> is correct, would that make any difference in the interaction
between a loop
> and the siding?
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:dcs104ebr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> >
> > Aluminium is a good conductor, nearly as good as copper.
Negligible
> > loss will be induced in it. Most loss will be in the ground by
virtue
> > of its very low height. The close proximity to ground will also
cause
> > unoticeable detuning.
> >
>
>

3910. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:50:45 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dcth45$n9a$1@news.service.uci.edu>
Source record: 72177

Cecil Moore wrote:
>
> To the best of my knowledge, the only argument we have left
> is whether there is enough time for wave cancellation to
> actually take place.

You mean that bit about how you think the waves first move in the reflected direction a little tiny bit and THEN cancel? Yes, you do need to rethink that. If they're equal in amplitude and opposite in phase, there's cancellation - at any value of t. In other words, the waves are prevented from reflecting. They don't reflect first, then disappear.

73, AC6XG

3911. Re: The Reality Compared to Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 16:51:07 UTC
From: richardharrison@webtv.net
Message-ID: <7551-42F2477B-223@storefull-3258.bay.webtv.net>
Source record: 72178

Richard Clark wrote:
"Well, given the tremendous correspondence that attended the other threads, dare I pause to offer something from the realm of the real?"

If you don`t want an EM reflection in space, the possible reflecting object must be indistinguishable from space. It must have a resistive characteristic impedance of 377 ohms.

377 ohms per square material spaced 1/4-wave from a reflective surface for the purpose of completely absorbing a normally incident wave was invented by Stanfield Salisbury at the Harvard Radio Research Laboratory during WW-2, according to the 3rd edition of Kraus` "Antennas" on page 909, attenuation is at least 20 dB for the reflection and the bandwidth is 1.3 to 1. Kraus gives a transmission line equivalent diagram on page 910.

Kraus derives the 377 ohms of free space on page 131. The reflecting surface does not need to be zero or infinity ohms. The exposed surface must be transformed to 377 ohms from whatever the underlaying surface is.

The 377-ohm carbin cloth shown by Kraus is named Salisbury screen for its inventor. It is placed 1/4-wavelength from the reflective surface. The small amount of energy penetrating the screen undergoes 180-degrees of delay in makind a round trip to the reflective surface and back to the carbon screen. It undergoes an additional 180-degrees of delay in peflection. The 360-degree total puts the reflected energy back in-phase with the penetrating energy. This makes a high impedance.

A high impedance in parallel with 377 ohms leaves the 377 ohms unchanged. It continues to match the incident energy and continues to take a bite out of the reflected energy between the two surfaces.

Stealth aircraft, antenna laboratory. or non-reflective glass must look like 377 ohms.

Best regards, Richard Harrison, KB5WZI

3912. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 17:03:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcthsjnnm1@news.service.uci.edu>
Source record: 72179

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Perhaps I was deluded by all your arguing about it. :-)
>
>
> I'm saying, "I agree"

A landmark in r.r.a.a history ladies and gentlemen. Cecil Moore says he agrees with Jim Kelley. Let me wipe a tear from my eye and cherish this moment. Of course "I agree" was in quotation marks and the agreement lasted just long enough for him to type those four words. He then continued arguing and badgering his hapless correspondent. :-(

ac6xg

3913. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 17:11:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1ni4f11rsrekc3jrk587ie4bubqiclkkvd@4ax.com>
Source record: 72180

On Thu, 04 Aug 2005 09:50:45 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:
>They don't reflect first, then disappear.

Hi Jim,

Ah yes, the first dip of the toes into the water. How are you going
to walk home on stumps after the shark feeds? ;-)

Celebrating your legacy I see.

I suppose in the next four years we get to see you trimmed to the
knees as you revisit this shallow end of the pool.

73's
Richard Clark, KB7QHC

3914. Re: Is it safe to suspend coax in midair?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 17:24:04 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <Uasle.5985$p5.1548@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 72181

On 04/08/2005 12:04 PM, Rob Brown wrote:
> On 04/08/2005 10:31 AM, Allodoxaphobia wrote:
>> "Sloppy Google posters posting without any quoted material make for
>> infuriating ng reading as it is. But, have 2 or more Google posters
>> running on as if this is a chat room is off the scale."
>>
> I'm so sorry that I confused you. I'll go flog myself with birtch
> branches and pray until a sign from the gods of the holy news group
> tell me I'm forgiven.
> Thanks for the usefull information to my original posting,

No birch flogging necessary! He/she is right, though. This is a public forum, and it helps if the thread of conversation is succinct, but complete. Even if "Fear of Opinions" (is the mere presence of such a userID contrary to USENET?) didn't exactly give you any useful information, the main complaint might be that your public thread did not offer much more, simply because of the format.

For what it's worth, I was actually interested in the original post, but was not able to follow the thread without difficulty.

Once could think of this in a different way: English speakers have many ad hoc rules they adhere to when conversing with other English speakers. There are many shared notions of communication that are outside of official grammar that we stick to to maximize understanding. Written communication is no different, except that specific situations like USENET may require a closer set of specific ad hoc rulesets.

Things like bottom posting and obvious, succinct quoting just help everything work better. Well, it helps in cases where the participants are not spoiling for a fight.

TTYL.

-- jdv

"Standards are wonderful. Everyone should have them."

3915. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 17:30:52 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dctjfg$oa5$1@news.service.uci.edu>
Source record: 72183

Richard Clark wrote:

>
> Celebrating your legacy I see.

If you say so. I'd like to know what it is that you are doing?

ac6xg

3916. Re: The Reality Compared to Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 17:31:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hij4f1lqspg1ih9htgh1l9f774sogrqo3e@4ax.com>
Source record: 72182

On Thu, 4 Aug 2005 11:51:07 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"Well, given the tremendous correspondence that attended the other
>threads, dare I pause to offer something from the realm of the real?"
>
>If you don`t want an EM reflection in space, the possible reflecting
>object must be indistinguishable from space. It must have a resistive
>characteristic impedance of 377 ohms.

Hi Richard,

This was EXACTLY the design goal obtained by NREL with their diffusion of a gradient of pores through the depth of the active surface. The variation of the index of refraction went from 1.0 to 3.5 with a smooth curve (albeit one jag at the beginning which reflects - seems only armchair designers can do it right).

>377 ohms per square material spaced 1/4-wave from a reflective surface
>for the purpose of completely absorbing a normally incident wave was
>invented by Stanfield Salisbury at the Harvard Radio Research Laboratory
>during WW-2

And this is roughly the technique employed by diffraction techniques which are superior to the quarterwave designs. The purpose is to contain the energy within the active matrix.

It appears your news server truncates the Topic line, starting a new thread each time - at least on my reader, I've noted that Google sews the threads back together tho'.

73's
Richard Clark, KB7QHC

3917. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 17:49:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ptk4f15hspo7stq7nsnlc3fgaft3loi218@4ax.com>
Source record: 72184

On Thu, 04 Aug 2005 10:30:52 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>> Celebrating your legacy I see.
>
>If you say so. I'd like to know what it is that you are doing?

Hi Jim,

Getting ready to go to Canada for the afternoon; and gathering
information for London later this month.

73's
Richard Clark, KB7QHC

3918. Re: Aluminum siding & proximity to loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 18:56:21 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dctock$f0q$1@mailhub227.itcs.purdue.edu>
Source record: 72185

Excellent reasoning - I guess I should have thought about how enameled
copper wire makes an excellent radiator.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dctgu3$9it$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Only the surface anodizing is an insulator. Radio frequency-wise, it
> may just as well not be there leaving the high conductivity aluminium
> siding to behave as if the anodizing didn't exist.
>
> If the siding was covered with a 3" layer of plastic it still wouldn't
> make any difference.
> ----
> Reg, G4FGQ
>
> ================================
>

3919. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 20:38:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f27e1e$1_2@spool9-west.superfeed.net>
Source record: 72186

Jim Kelley wrote:
> You mean that bit about how you think the waves first move in the
> reflected direction a little tiny bit and THEN cancel? Yes, you do need
> to rethink that. If they're equal in amplitude and opposite in phase,
> there's cancellation - at any value of t. In other words, the waves are
> prevented from reflecting. They don't reflect first, then disappear.

If they don't reflect first and then disappear, they don't exist
at all. But we know that reflected waves indeed exist and through
deduction can see how they must exist or else cause-and-effect is
violated. So your assertion that they never existed in the first
place is riddled with contradictions that I am unable to resolve.

So I ask again for the umteenth time. Given the rearward-traveling
reflected wave from the mismatched load encountering the match point,
exactly what turns that energy and momentum around and causes it to
flow back toward the load in the opposite direction? If not wave
cancellation, then what?

You simply cannot have it both ways. If the canceled waves don't
exist before they are cancel, they never existed at all and
therefore wave cancellation cannot exist at all. What you propose
is clearly a violation of cause-and-effect.
--
73, Cecil, http://www.qsl.net/w5dxp

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3920. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 21:25:36 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcu18v$1e0$1@news.service.uci.edu>
Source record: 72187

Hey Cecil,

The superposition of waves which are equal in amplitude and out of phase equals zero at any time t. There is no time t in the steady state when reflected waves to the left of the discontinuity can exist. The whole point of the exercise is to prevent reflections. You're proposing that the reflection is first allowed, and then it gets cancelled, but not really cuz then it has to turn around somehow and go back the other way. Let it drop man.

ac6xg

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> You mean that bit about how you think the waves first move in the
>> reflected direction a little tiny bit and THEN cancel? Yes, you do
>> need to rethink that. If they're equal in amplitude and opposite in
>> phase, there's cancellation - at any value of t. In other words, the
>> waves are prevented from reflecting. They don't reflect first, then
>> disappear.
>
>
> If they don't reflect first and then disappear, they don't exist
> at all. But we know that reflected waves indeed exist and through
> deduction can see how they must exist or else cause-and-effect is
> violated. So your assertion that they never existed in the first
> place is riddled with contradictions that I am unable to resolve.
>
> So I ask again for the umteenth time. Given the rearward-traveling
> reflected wave from the mismatched load encountering the match point,
> exactly what turns that energy and momentum around and causes it to
> flow back toward the load in the opposite direction? If not wave
> cancellation, then what?
>
> You simply cannot have it both ways. If the canceled waves don't
> exist before they are cancel, they never existed at all and
> therefore wave cancellation cannot exist at all. What you propose
> is clearly a violation of cause-and-effect.

3921. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 22:09:28 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <FMidnVH7w7PRD2_fRVn-gQ@comcast.com>
Source record: 72188

It's obvious that Fred doesn't ride. My bike costs more than many HF
rigs !!!

BTW, in a crash, the BNC should break apart and have the coax tear out.
Solution, carry a cell phone and leave the radio at the shack!

I carry a 2/440 HT.

+ + +

Fred W4JLE wrote:
> I told Lance, and now I will tell you, if you get in my way in your little
> faggoty outfits and goofy helmets, I will run your ass over. Don't worry, I
> will call 911 and let them know where to pick up your traffic blocking body.
>
>
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:QrPHe.35144$Eo.25151@fed1read04...
>
>>I'm looking for an antenna connector with the following
>>idea:
>>
>>I want to mount a spare 2m/440 mobile antenna on my
>>race bike and use my FT-51R ht on my belt with the
>>deluxe remote mic on the handlebars.
>>
>>Problem is that if I wreck, the radio will want to stay on
>>my belt but the coax going to the antenna won't! The mic
>>connector will pull out but the antenna connector (BNC)
>>will stay until something breaks. If I wreck, I may need my
>>HT to call for assistance (it's happened once before) I
>>need an inepensive 50 ohm pair of connectors that will slide
>>apart when pulled. Kinda like a push on F fitting but for
>>50 ohm RG-58 cable.
>>
>>The only ones I've thought of are the F fitting or an RCA
>>connection. Anybody know the impedance of an RCA plug?
>>
>>Are there push on BNC or 259 connectors? Cost matters.
>>
>>--
>> Just my 2ï¿½... 73 es gd dx de Ken KGï¿½WX
>> Grid EM17ip, Flying Pigs #-1055
>> Proud builder & owner of Elecraft K2 #4913
>>

>>
>
>
>

3922. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 22:13:11 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <FbWdnUZ_z8yxDm_fRVn-3g@comcast.com>
Source record: 72189

Most likely his feet are more secure than ski boots. Serious riders use
cleats and clamps for the feet. If they crash the bike stays with them
until they kick out.

My pedals, cleats and shoes cost $300. No need for tape!! :-)

Boy, you guys are teaching me a lesson! I though Ham Radio was/is
expensive, but, serious cycling is almost as expensive.

Hal Rosser wrote:

> OR - tape your feet and hands to the bike so it will stay with you.
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11evhrske04g81f@corp.supernews.com...
>
>>I suggest filing the bumps off a BNC female. Without them, the connector
>>halves should fit snugly enough to stay together unless you tug on it.
>>You could use a little tape, a weak rubber band, or something similar to
>>hold it together a little more firmly while riding but which would break
>>away fairly easily.
>>
>>If you try to use an RCA plug, the connections to it -- where you have
>>to split to coax conductors apart -- will cause a much greater impedance
>>bump than the connector itself. Since your communications seem to be
>>short range, you should be able to get by with a pretty bad impedance
>>bump, though. It would probably have the least effect if it's close to
>>the rig rather than at the antenna end of the coax.
>>
>>Roy Lewallen, W7EL
>>
>>Ken Bessler wrote:
>>
>>>I'm looking for an antenna connector with the following
>>>idea:
>>>
>>>I want to mount a spare 2m/440 mobile antenna on my
>>>race bike and use my FT-51R ht on my belt with the
>>>deluxe remote mic on the handlebars.
>>>
>>>Problem is that if I wreck, the radio will want to stay on
>>>my belt but the coax going to the antenna won't! The mic
>>>connector will pull out but the antenna connector (BNC)
>>>will stay until something breaks. If I wreck, I may need my
>>>HT to call for assistance (it's happened once before) I

>>>need an inepensive 50 ohm pair of connectors that will slide
>>>apart when pulled. Kinda like a push on F fitting but for
>>>50 ohm RG-58 cable.
>>>
>>>The only ones I've thought of are the F fitting or an RCA
>>>connection. Anybody know the impedance of an RCA plug?
>>>
>>>Are there push on BNC or 259 connectors? Cost matters.
>>>
>>>--
>>> Just my 2ï¿½... 73 es gd dx de Ken KGï¿½WX
>>> Grid EM17ip, Flying Pigs #-1055
>>> Proud builder & owner of Elecraft K2 #4913
>>>
>>>
>
>
>

3923. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 22:27:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f2976b$1_2@spool9-west.superfeed.net>
Source record: 72190

Jim Kelley wrote:
> The superposition of waves which are equal in amplitude and out of phase
> equals zero at any time t. There is no time t in the steady state when
> reflected waves to the left of the discontinuity can exist.

I agree and have never said they could. However, they do exist *at*
the impedance discontinuity, the point at which they are canceled.
To say the terms in the S-parameter equations don't ever exist in
the first place is ridiculous. That throws the entire S-parameter
analysis out the window.

> The whole
> point of the exercise is to prevent reflections. You're proposing that
> the reflection is first allowed, and then it gets cancelled, but not
> really cuz then it has to turn around somehow and go back the other way.

It is a no-brainer to know that all energy heads toward the load
because everything heads toward the load at the match point in
a matched system. Reflections are prevented by the cancellation
of two reflected waves. If those two reflected waves never exist,
as you assert, how the heck can they engage in wave cancellation?
You are obviously violating the rules of cause and effect. It
is my understanding that can only happen at the quantum level
in physics. So you are in violation of the conventional laws of
physics.

Here's the question that you have avoided like the plague and
refuse to answer. Until you answer this question, your postings
are simply gut feelings.

Given the reflected energy wave from a mismatched load barreling
toward the source at the speed of light, what phenomenon of physics
causes the energy and momentum in that wave to reverse direction?
--
73, Cecil http://www.qsl.net/w5dxp

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3924. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 22:55:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f29ded$1_2@spool9-west.superfeed.net>
Source record: 72191

Jim Kelley wrote:

> Cecil Moore wrote:
>> Given the reflected energy wave from a mismatched load barreling
>> toward the source at the speed of light, what phenomenon of physics
>> causes the energy and momentum in that wave to reverse direction?
>
> The only way electronmagnetic energy can reverse direction is for it to
> reflect.

Exactly! So what does cause the reflection of reflected energy
at the match point? We know it happens and you have given us
no clue as to why it happens. When given a choice of one
explaination provided by me Vs no explaination provided by
you, which should the lurkers choose? Is it better to be
ignorant than to be wrong? Not in my book. I learn something
when I'm wrong. I am not about to settle for ignorance.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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3925. Re: Cushcraft MA5B

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 23:07:17 UTC
From: Warren Bowery <kc8ykq@arrl.net>
Message-ID: <Xns96A8C2791B48Dwbowerybrightnet@216.196.97.142>
Source record: 72192

Hi Smitty....

I have used my MA-5B for over a year. I have it 40' up, and it works fine. It has withstood an ice storm this winter (1/4" ice build-up), and 60+ MPH winds a couple of times.

Highest gain is on 10 meters of course, but I've worked my fair share of DX on 20 and 15. Keep in mind that it functions as a 2-element Yagi only on 10, 15 and 20 meters. On 12 and 17 it is a rotatable dipole. Still, I'm happy with it. I've been able to work just about everything I've heard with it.

Warren - KC8YKQ

"Bill KB3GUN" <kb3gun@swronline.com> wrote in news:42ee8477$0$5360$ec3e2dad@news.usenetmonster.com:

> Anyone here using the MA-5B? I'm running a 360ft loop at 60 feet now
> (thru a tuner) and I'd like to get something more directional for DX. I
> was told by others that a vertical would be good for DX but I had an
> MFJ vertical before and I wasn't too fond of it. 15, 17 and 20M are my
> bands of choice.
>
> A 7ft boom with the longest element around 17ft. For a small beam, is
> this a good choice?
>
> 73!
> Smitty kb3gun
>
>

3926. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 23:08:14 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dcu7am$455$1@news.service.uci.edu>
Source record: 72193

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> Given the reflected energy wave from a mismatched load barreling
>>> toward the source at the speed of light, what phenomenon of physics
>>> causes the energy and momentum in that wave to reverse direction?
>>
>>
>> The only way electronmagnetic energy can reverse direction is for it
>> to reflect.
>
>
> Exactly! So what does cause the reflection of reflected energy
> at the match point? We know it happens and you have given us
> no clue as to why it happens.

I assumed you knew. Reflection is caused when a wave encounters a
change in media of some kind.

> When given a choice of one
> explaination provided by me Vs no explaination provided by
> you, which should the lurkers choose? Is it better to be
> ignorant than to be wrong? Not in my book. I learn something
> when I'm wrong. I am not about to settle for ignorance.

Even at the cost of making an enormous ass out of yourself in the
process. How noble.

ac6xg

3927. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-04 23:22:59 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7qxIe.24291$Mo.9919@bignews5.bellsouth.net>
Source record: 72194

```
See there - stick with us hams - we are a bunch of cheap so-and so's -
We would have saved you $300 right off the bat.
Duct tape and bailing wire are big moneysavers.
:-)
```

"Ham op" <hamop@comcast.net> wrote in message
news:FbWdnUZ_z8yxDm_fRVn-3g@comcast.com...
> Most likely his feet are more secure than ski boots. Serious riders use
> cleats and clamps for the feet. If they crash the bike stays with them
> until they kick out.
>
> My pedals, cleats and shoes cost $300. No need for tape!! :-)
>
> Boy, you guys are teaching me a lesson! I though Ham Radio was/is
> expensive, but, serious cycling is almost as expensive.
>
> Hal Rosser wrote:
>
> > OR - tape your feet and hands to the bike so it will stay with you.
> >
> > "Roy Lewallen" <w7el@eznec.com> wrote in message
> > news:11evhrske04g81f@corp.supernews.com...
> >
> >>I suggest filing the bumps off a BNC female. Without them, the connector
> >>halves should fit snugly enough to stay together unless you tug on it.
> >>You could use a little tape, a weak rubber band, or something similar to
> >>hold it together a little more firmly while riding but which would break
> >>away fairly easily.
> >>
> >>If you try to use an RCA plug, the connections to it -- where you have
> >>to split to coax conductors apart -- will cause a much greater impedance
> >>bump than the connector itself. Since your communications seem to be
> >>short range, you should be able to get by with a pretty bad impedance
> >>bump, though. It would probably have the least effect if it's close to
> >>the rig rather than at the antenna end of the coax.
> >>
> >>Roy Lewallen, W7EL
> >>
> >>Ken Bessler wrote:
> >>
> >>>I'm looking for an antenna connector with the following
> >>>idea:
> >>>
> >>>I want to mount a spare 2m/440 mobile antenna on my

> >>>race bike and use my FT-51R ht on my belt with the
> >>>deluxe remote mic on the handlebars.
> >>>
> >>>Problem is that if I wreck, the radio will want to stay on
> >>>my belt but the coax going to the antenna won't! The mic
> >>>connector will pull out but the antenna connector (BNC)
> >>>will stay until something breaks. If I wreck, I may need my
> >>>HT to call for assistance (it's happened once before) I
> >>>need an inepensive 50 ohm pair of connectors that will slide
> >>>apart when pulled. Kinda like a push on F fitting but for
> >>>50 ohm RG-58 cable.
> >>>
> >>>The only ones I've thought of are the F fitting or an RCA
> >>>connection. Anybody know the impedance of an RCA plug?
> >>>
> >>>Are there push on BNC or 259 connectors? Cost matters.
> >>>
> >>>--
> >>> Just my 2�... 73 es gd dx de Ken KG�WX
> >>> Grid EM17ip, Flying Pigs #-1055
> >>> Proud builder & owner of Elecraft K2 #4913
> >>>
> >>>
> > >
> > >
> > >
>

3928. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 00:07:30 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e2add$42f2adce$438df2d2$11578@ALLTEL.NET>
Source record: 72195

Yep, you folks spend a fortune to get a bike 10 pounds lighter, then carry around a 20 pound chain to keep people from stealing it!

Every other sport takes place on a field designed for the sport. You guys for the most part ride on the highways creating a hazard.

"Ham op" <hamop@comcast.net> wrote in message
news:FMidnVH7w7PRD2_fRVn-gQ@comcast.com...
> It's obvious that Fred doesn't ride. My bike costs more than many HF
> rigs !!!
>
> BTW, in a crash, the BNC should break apart and have the coax tear out.
> Solution, carry a cell phone and leave the radio at the shack!
>
> I carry a 2/440 HT.
>
> + + +
>
> Fred W4JLE wrote:
> > I told Lance, and now I will tell you, if you get in my way in your
little
> > faggoty outfits and goofy helmets, I will run your ass over. Don't
worry, I
> > will call 911 and let them know where to pick up your traffic blocking
body.
> >
> >
> > "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> > news:QrPHe.35144$Eo.25151@fed1read04...
> >
> >>I'm looking for an antenna connector with the following
> >>idea:
> >>
> >>I want to mount a spare 2m/440 mobile antenna on my
> >>race bike and use my FT-51R ht on my belt with the
> >>deluxe remote mic on the handlebars.
> >>
> >>Problem is that if I wreck, the radio will want to stay on
> >>my belt but the coax going to the antenna won't! The mic
> >>connector will pull out but the antenna connector (BNC)
> >>will stay until something breaks. If I wreck, I may need my
> >>HT to call for assistance (it's happened once before) I
> >>need an inepensive 50 ohm pair of connectors that will slide
> >>apart when pulled. Kinda like a push on F fitting but for

> >>50 ohm RG-58 cable.
> >>
> >>The only ones I've thought of are the F fitting or an RCA
> >>connection. Anybody know the impedance of an RCA plug?
> >>
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> >> Just my 2¢... 73 es gd dx de Ken KG¢WX
> >> Grid EM17ip, Flying Pigs #-1055
> >> Proud builder & owner of Elecraft K2 #4913
> >>
> >>
> >
> >
> >
>

3929. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 00:10:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f2af93$1_1@spool9-west.superfeed.net>
Source record: 72196

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> Exactly! So what does cause the reflection of reflected energy
>> at the match point? We know it happens and you have given us
>> no clue as to why it happens.
>
> I assumed you knew. Reflection is caused when a wave encounters a
> change in media of some kind.

What I am asserting and you haven't even come close to disproving is that wave cancellation of RF waves can cause reflections in exactly the same way as wave cancellation of light waves has been proven to cause reflections. What is it about the two following two technical reference quotes that you don't understand? Oh, now I remember. Your argument is that words don't mean what words mean. With that argument you can disprove anything.

www.mellesgriot.com/products/optics/oc_2_1.htm

"Clearly, if the wavelength of the incident light and the thickness of the film are such that a phase difference exists between reflections of p, then reflected wavefronts interfere destructively, and overall reflected intensity is a minimum. If the two reflections are of equal amplitude, then this amplitude (and hence intensity) minimum will be zero."

"In the absence of absorption or scatter, the principle of conservation of energy indicates all 'lost' reflected intensity will appear as enhanced intensity in the transmitted beam. The sum of the reflected and transmitted beam intensities is always equal to the incident intensity. This important fact has been confirmed experimentally."

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index.html

"... when two waves of equal amplitude and wavelength that are 180-degrees out of phase with each other meet, they are not actually annihilated. All of the photon energy present in these waves must somehow be recovered or redistributed in a new direction, according to the law of energy conservation ... Instead, upon meeting, the photons are redistributed to regions that permit constructive interference, so the effect should be considered as a redistribution of light waves and photon energy rather than the spontaneous construction or destruction of light."

That's as clear as it can possibly be, Jim. Wave cancellation redistributes
the energy. In a transmission line, if energy is redistributed, it must
necessarily change directions. Would you believe there are only two
directions available in a transmission line? If not, please prove it.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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3930. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 01:35:52 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11f5gjmmp75q2e8@corp.supernews.com>
Source record: 72197

No no. The bikes are enhancing the overall experience. It's the _cars_
that are creating a hazard.

Fred W4JLE wrote:

> Yep, you folks spend a fortune to get a bike 10 pounds lighter, then carry
> around a 20 pound chain to keep people from stealing it!
>
> Every other sport takes place on a field designed for the sport. You guys
> for the most part ride on the highways creating a hazard.
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:FMidnVH7w7PRD2_fRVn-gQ@comcast.com...
>
>>It's obvious that Fred doesn't ride. My bike costs more than many HF
>>rigs !!!
>>
>>BTW, in a crash, the BNC should break apart and have the coax tear out.
>>Solution, carry a cell phone and leave the radio at the shack!
>>
>>I carry a 2/440 HT.
>>
>>+ + +
>>
>>Fred W4JLE wrote:
>>
>>>I told Lance, and now I will tell you, if you get in my way in your
>
> little
>
>>>faggoty outfits and goofy helmets, I will run your ass over. Don't
>
> worry, I
>
>>>will call 911 and let them know where to pick up your traffic blocking
>
> body.
>
>>>
>>>"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
>>>news:QrPHe.35144$Eo.25151@fed1read04...
>>>
>>>
>>>>I'm looking for an antenna connector with the following
>>>>idea:

>>>>
>>>>I want to mount a spare 2m/440 mobile antenna on my
>>>>race bike and use my FT-51R ht on my belt with the
>>>>deluxe remote mic on the handlebars.
>>>>
>>>>Problem is that if I wreck, the radio will want to stay on
>>>>my belt but the coax going to the antenna won't! The mic
>>>>connector will pull out but the antenna connector (BNC)
>>>>will stay until something breaks. If I wreck, I may need my
>>>>HT to call for assistance (it's happened once before) I
>>>>need an inepensive 50 ohm pair of connectors that will slide
>>>>apart when pulled. Kinda like a push on F fitting but for
>>>>50 ohm RG-58 cable.
>>>>
>>>>The only ones I've thought of are the F fitting or an RCA
>>>>connection. Anybody know the impedance of an RCA plug?
>>>>
>>>>Are there push on BNC or 259 connectors? Cost matters.
>>>>
>>>>--
>>>> Just my 2ï¿½... 73 es gd dx de Ken KGï¿½WX
>>>> Grid EM17ip, Flying Pigs #-1055
>>>>Proud builder & owner of Elecraft K2 #4913
>>>>
>>>>
>>>
>>>
>>>
>
>

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3931. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 01:58:20 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <0JzIe.48102$Eo.23530@fed1read04>
Source record: 72198

OK, OK - let's drop it before someone living in a trailer
with a vanity callsign gets his feather's ruffled.....

For the record - I did get several good ideas. The best
was to simply not lock the BNC connector on the bayonets.

Sheilds up, you may flame away.....
--
73 de Ken KG&#65533;WX - Flying Pigs #-1055
Elecraft K2 #4913

3932. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 02:00:00 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <eaeaa$42f2c861$438df2d2$31492@ALLTEL.NET>
Source record: 72199

The bikes have no mirrors, lights etc. "Gotta save that weight" I had one swerve to avoid a pothole, and sans a mirror pulled right in my path. I managed to avoid him.

"Tim Wescott" <tim@seemywebsite.com> wrote in message news:11f5gjmmp75q2e8@corp.supernews.com...
> No no. The bikes are enhancing the overall experience. It's the _cars_
> that are creating a hazard.
>
.com

3933. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 02:17:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e8i5f15lqie9pihvt5g6m9rfgb6g2eiji7@4ax.com>
Source record: 72200

On Thu, 04 Aug 2005 19:10:40 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Jim Kelley wrote:
>>
>> Cecil Moore wrote:
>>> Exactly! So what does cause the reflection of reflected energy
>>> at the match point? We know it happens and you have given us
>>> no clue as to why it happens.
>>
>> I assumed you knew. Reflection is caused when a wave encounters a
>> change in media of some kind.
>
>What I am asserting and you haven't even come close to disproving is
>that wave cancellation of RF waves can cause reflections in exactly
>the same way as wave cancellation of light waves has been proven
>to cause reflections.

Hi Jim,

THIS above is your legacy that I forecast not more than 30 hours ago.
Message-ID: <k9c2f1dmrojrrfrjdvjej1ttt6m9i5cj0n@4ax.com>

Four years to this point resolved nothing; four years more, having
allowed decimals to slip, will offer nothing new. You've been
pencil-whipped with 1 place precision math "proving" absolutes that
these theories turn on.

Now for a reflective question:
>>I'd like to know what it is that you are doing?
A trip to Canada would have gotten you further. ;-)
It was a nice day for it too.

73's
Richard Clark, KB7QHC

3934. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 02:57:38 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f2d5a2$0$32203$39cecf19@news.twtelecom.net>
Source record: 72203

Ham op wrote:

> It's obvious that Fred doesn't ride. My bike costs more than many HF
> rigs !!!
>
> BTW, in a crash, the BNC should break apart and have the coax tear out.
> Solution, carry a cell phone and leave the radio at the shack!
>
> I carry a 2/440 HT.
>
> + + +
>

Part of the problem may lie with how the average bicycle rider acts in some places. I am not assuming you are a bad guy, but I saw a bike rider folded in half laying in the street, yes he was dead, last year in downtown Minneapolis and I was pleased.

We have a nasty buch of assholes riding in our downtown. I had one kick by door becasue I didn't "yield" for him when I had the green light and he had the red.

tom
K0TAR

3935. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 05:03:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ccs5f1ploeuij9v7v3jh0eo6jpqood8onp@4ax.com>
Source record: 72201

On Thu, 4 Aug 2005 04:25:56 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Good lord Richard, did you check the reference? It was a friggen joke!

Hi Fred,

You deserve a joke in return that is probably more entertaining than
mine I suspect.

From this week's Army Times is a comic strip by Mort Walker's "Beetle
Bailey." Beetle and Zero are ambling along talking:

Beetle - What if you could see into the future and saw your life was
miserable?

Zero - I'd keep on plugging away.

Beetle - Really? Why?

Zero - Hey, the future could be wrong!

This strip probably won't appear in the civilian funnys until next
week however, Mort always gives the Army Times his work first.

73's
Richard Clark, KB7QHC

3936. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 05:22:06 UTC
From: richardharrison@webtv.net
Message-ID: <19918-42F2F77E-347@storefull-3254.bay.webtv.net>
Source record: 72202

Cecil, W5DXP wrote:
"What phenomenon of physics causes the energy and momentum in that wave to reverse direction?"

Suppose you have a 50-ohm coax that has a 25-ohm resistor across its load end. The incident wave traveling on the coax has too much voltage and too little current to supply the 25-ohm load.

As the load forces the incident voltage lower, energy is conserved by transfer of energy from the E-field to the H-field. Voltage generated in this energy transfer between fields is reversed in phase from that in the incident wave. Though current is increased in the too low load resistance, its phase is unchanged from that in the incident wave.

The reversed-phase voltage caused by the roo-low load resistance launches the reflected wave.

Best regards, Richard Harrison, KB5WZI

3937. Re: Cushcraft MA5B

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 11:21:28 UTC
From: Bill KB3GUN <kb3gunlessspam@swronline.com>
Message-ID: <42f34bb1$0$50897$ec3e2dad@news.usenetmonster.com>
Source record: 72204

"Warren Bowery" <kc8ykq@arrl.net> wrote in message
news:Xns96A8C2791B48Dwbowerybrightnet@216.196.97.142...
> Hi Smitty....
>
> I have used my MA-5B for over a year. I have it 40' up, and it works
> fine.
> It has withstood an ice storm this winter (1/4" ice build-up), and 60+ MPH
> winds a couple of times.
>
> Highest gain is on 10 meters of course, but I've worked my fair share of
> DX
> on 20 and 15. Keep in mind that it functions as a 2-element Yagi only on
> 10, 15 and 20 meters. On 12 and 17 it is a rotatable dipole. Still, I'm
> happy with it. I've been able to work just about everything I've heard
> with it.
>
> Warren - KC8YKQ
>
>
Thanks Warren!
-Smitty

3938. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 12:55:33 UTC
From: Mark Veldhuis <me@privacy.net>
Message-ID: <dcvnk5lqb1@news2.zwoll1.ov.home.nl>
Source record: 72205

Guys,

Thanks for your replies so far.
The buzz/noise is irregular. Not always, and when it's there, it's not always audible on the same frequencies.
I am afraid it's something in the neighbourhood. Lots of houses around, so it probably won't be easy to find out exactly where it comes from.
I also hear it when I connect a simple wire as an antenna, so I think it's not a ground loop?
I made a recording of 1602 kHz. this afternoon. You can hear the buzz/noise there, although not as strong as previous times.
Maybe someone can tell more by listening to the audioclip?
It is at http://mark-veldhuis.nl/1602.mp3 .

--

73',

Mark Veldhuis.

3939. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 13:32:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f36b78$1_2@spool9-west.superfeed.net>
Source record: 72206

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "What phenomenon of physics causes the energy and momentum in that wave
> to reverse direction?"
>
> Suppose you have a 50-ohm coax that has a 25-ohm resistor across its
> load end. The incident wave traveling on the coax has too much voltage
> and too little current to supply the 25-ohm load.

What I was talking about is a little more complicated than
that. Assume rho^2 = 0.5 at an impedance discontinuity at
a match point. The rearward-traveling reflected wave sees
the impedance discontinuity at the match point and 1/2 of
the energy is reflected back toward the load according to
the rules of reflection. What reflects the other half of
the energy?

The 50 ohm coax on the source side of the match point refuses
to accept *any* voltage or current. 100% of the reflected
energy is re-reflected at the match point.
--
73, Cecil http://www.qsl.net/w5dxp

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3940. Re: Terrain Analysis : TA from K6STI or equivalent

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 14:49:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f37db2$1_1@spool9-west.superfeed.net>
Source record: 72207

Marc Delporte wrote:
> Thanks for the answers.

And thanks for the posting from tomorrow morning. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

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3941. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 15:15:25 UTC
From: richardharrison@webtv.net
Message-ID: <9527-42F3828D-326@storefull-3256.bay.webtv.net>
Source record: 72208

Cecil, W5DXP wrote:
"What reflects the other half of the energy?"

The previous example I gave was a 25-ohm resistor-load on a 50-ohm line. Change the load to 100 ohms. Now the load cannot accept all the current carried by the incident wave. Lenz`s law says the falling current generates a rising voltage in an attempt to maintain the current. The load-generated voltage is in the same phase as the incident voltage so their sum is greater. Increased voltage across the load reverses phase and direction of the line-current at the too-high load resistance. Thus, direction of the reflection is opposite that of the incident wave.

If the load is too small or too large for Zo, some of the incident energy is reflected by the load. The two processes are analogous. When the load value is too small, there is a reversal in the phase of the voltage without change in the phase of the current (1955 Terman page 92). When the load value is too large, there is a reversal in the phase of the current without change in the phase of the voltage (1955 Terman page 89).

Those are the necessary and sufficient conditions to reverse the direction of some of the energy in an incident wave on a transmission line. For a complete reversal, a short or an open is required.

Best regards, Richard Harrison, KB5WZI

3942. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 15:28:30 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <77c18$42f385ad$438df2d2$15254@ALLTEL.NET>
Source record: 72209

Thanks Richard, as the proud father of an army aviator, Kiowa Warriors, I already get the Army Times.

My son is a W3, soon to be W4. He will return to Iraq for a second tour next month. He has been in Bosnia and Afganistan as well.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:ccs5f1ploeuij9v7v3jh0eo6jpqood8onp@4ax.com...
> On Thu, 4 Aug 2005 04:25:56 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Good lord Richard, did you check the reference? It was a friggen joke!
>
> Hi Fred,
>
> You deserve a joke in return that is probably more entertaining than
> mine I suspect.
>
> From this week's Army Times is a comic strip by Mort Walker's "Beetle
> Bailey." Beetle and Zero are ambling along talking:

3943. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 15:30:02 UTC
From: richardharrison@webtv.net
Message-ID: <9527-42F385FA-329@storefull-3256.bay.webtv.net>
Source record: 72210

Mark Veldhuis wrote:
"The buz/noise is irregular."

A small battery operated portable containing a loop antenna will be found to have a nulled response in a certain sense aimed toward the interference source. Use it to find the source.

Best regards, Richard Harrison, KB5WZI

3944. Re: Terrain Analysis : TA from K6STI or equivalent

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 16:13:18 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndf740t.19sc.bit-bucket@shell.config.com>
Source record: 72211

On Fri, 05 Aug 2005 09:49:23 -0500, Cecil Moore wrote:
> Marc Delporte wrote:
>> Thanks for the answers.
>
> And thanks for the posting from tomorrow morning. :-)

I wish he'd come back again soon and give us opening stock quotes.

Jonesy

3945. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 16:14:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r737f1l29vsq1757chge29o11sfh71fmb9@4ax.com>
Source record: 72212

On Fri, 5 Aug 2005 14:55:33 +0200, Mark Veldhuis <me@privacy.net>
wrote:
>I made a recording of 1602 kHz. this afternoon. You can hear the
>buzz/noise there, although not as strong as previous times.
>Maybe someone can tell more by listening to the audioclip?
>It is at http://mark-veldhuis.nl/1602.mp3 .

Hi Mark,

I listened several times and it sounds like white noise with maybe a
hint of programming. However, that is the problem with noise, hearing
"things." I would not call it buzz at all.

There also appear to be two weak and broad resonances, but this is
from the crude spectrum presented by the WinAmp display. I used to
have spectrum analyzer software that would give a waterfall display
that would be useful in this situation, but I no longer have it
installed.

That aside, it actually sounds quite normal except I would expect some
broadcast activity near that frequency there in the low country.

73's
Richard Clark, KB7QHC

3946. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 17:33:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f3a437$1_1@spool9-west.superfeed.net>
Source record: 72213

Richard Harrison wrote:
> Those are the necessary and sufficient conditions to reverse the
> direction of some of the energy in an incident wave on a transmission
> line. For a complete reversal, a short or an open is required.

What you say happens at a load is entirely correct. At a load, there is only one EM wave incident upon the load. But at an impedance discontinuity in a transmission line with reflections, there are two EM waves incident upon the impedance discontinuity, one from each direction. There's a forward wave coming from the source and a reflected wave coming from the load.

It might stand to reason that twice as many incident waves might complicate things beyond what happens at a load. And things are more complicated as can be observed from the s-parameter equations. For a single load, the s-parameter reflected voltage/power equations reduce to:

b1 = s11*a1 for normalized reflected voltage, and

b1^2 = (s11*a1)^2 for reflected power where s11^2 is the power reflection coefficient

For an impedance discontinuity in the middle of a transmission line with reflections, the s-parameter equation for normalized reflected voltage is:

b1 = s11*a1 + s12*a2 for normalized voltage, and

b1^2 = (s11*a1 + s12*a2)^2 for reflected power

It's pretty obvious that the reflected power equation at the impedance discontinuity is more complicated than the reflected power equation at the load. In fact, if you do the squaring of the right hand side of the equation just above, you get the interference term.

2*s11*s12*a1*a2*cos(phi) where phi is the phase angle between phasors a1 and a2.

The interference term, in watts, represents the amount of interference present and affects the magnitude of the reflected power. Since the amount of interference affects the total reflected power, it must also affect the total forward power so as to satisfy the conservation

of energy principle. Since interference affects the
magnitudes of both the reflected power and forward power,
the conclusion is inescapable that interference can also
cause reflections and this is verified by a couple of
technical web pages pertaining to light waves.

www.mellesgriot.com/products/optics/oc_2_1.htm

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html

Walter Maxwell wrote about such back in the 70's. From
Sec 4.3 of "Reflections" speaking of match points:

"The destructive wave interference between these two
complementary waves ... causes a complete cancellation
of energy flow in the direction toward the generator.
Conversely, the constructive wave interference produces
an energy maximum in the direction toward the load, ..."

In a transmission line with only two directions, when the
energy flow is canceled in one direction, that energy must
necessarily flow in the only other direction available, i.e.
an energy reflection must take place.

So to your list of three things that can cause 100% reflection,
you can add wave cancellation in the form of total destructive
interference between two EM waves traveling in the same direction
in a thansmission line, having equal magnitudes and opposite
phases.
--
73, Cecil, http://www.qsl.net/w5dxp

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3947. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 17:51:29 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <1123264288.985238.229260@z14g2000cwz.googlegroups.com>
Source record: 72214

Cecil Moore wrote:
> Jim Kelley wrote:
> >
> > Cecil Moore wrote:
> >> Exactly! So what does cause the reflection of reflected energy
> >> at the match point? We know it happens and you have given us
> >> no clue as to why it happens.
> >
> > I assumed you knew. Reflection is caused when a wave encounters a
> > change in media of some kind.
>
> What I am asserting and you haven't even come close to disproving is
> that wave cancellation of RF waves can cause reflections in exactly
> the same way as wave cancellation of light waves has been proven
> to cause reflections.

Since you're the only person in history to have ever claimed such a
phenomenon occurs, the responsibility rests squarely with you to prove
it exists. As I just got done saying, the only way for electromagnetic
energy to change direction is by reflection. It seemed you understood
that.

> What is it about the two following two
> technical reference quotes that you don't understand?

I understand them perfectly. You may recall that I introduced you to
the Melles-Griot site. You on the other hand, misunderstand them.

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html
>
> "... when two waves of equal amplitude and wavelength that are 180-
> degrees out of phase with each other meet, they are not actually
> annihilated. All of the photon energy present in these waves must
> somehow be recovered or redistributed in a new direction, according to
> the law of energy conservation ... Instead, upon meeting, the photons
> are redistributed to regions that permit constructive interference, so
> the effect should be considered as a redistribution of light waves and
> photon energy rather than the spontaneous construction or destruction
> of light."
>
> That's as clear as it can possibly be, Jim. Wave cancellation redistributes
> the energy.

And you are clearly reading more into it than it clearly says (as
evidenced by the fact that what you wrote and what it says are clearly

not the same thing). Your interpretation is totally incorrect. Interference is an effect not a cause. The text desribes the actual end result, but you're interpretting it to be a allusion to some sort of bizzarre supernatural phenomenon. You're better off doing what I have done. Figure out how it works by relying upon natural phenomena for the explanation. It works out beautifully if you'd at least give it a try. True, you won't be able to claim to have invented it. But claiming to have invented the other thing would probably only have earned you a "Cranky" on crank.net anyway.

73, ac6xg

ps Your article did not appear on my news service, so I'm responding via Google.

3948. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 18:25:02 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <n3b7f1pc1peq7fhpmn0f78om5ho7tuuf09@4ax.com>
Source record: 72215

On Fri, 05 Aug 2005 12:33:44 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>What you say happens at a load is entirely correct. At a
>load, there is only one EM wave incident upon the load.
>But at an impedance discontinuity in a transmission line
>with reflections, there are two EM waves incident upon
>the impedance discontinuity, one from each direction.
>There's a forward wave coming from the source and a
>reflected wave coming from the load.
snip

There's another way of viewing the manner in which energy reflected from a mismatch load. That is 'motor generator action'. Lest you think I'm joking, please let me quote from my own writing in QST August 1973, 32 years ago, repeated in Chapter 3 of Reflections 1 and 2:

"... Now we'll proceed to the generation of reflections. When the electromagnetic field reaches the end of the line, if the load terminating the line is an open circuit, the magnetic field collapses because the current goes to zero due to the infinite impedance of the open-circuit. The changing magnetic field at the open circuit produces a new electric field equal in energy to the magnetic field, which induces a new voltage into the load circuit that is equal to, and in phase with the voltage in the forward wave. (Keep in mind that a voltage is induced, or generated, by mutual motion between a magnetic field and a conductor, a phenomenon generally known as motor-generator action. Thus, it can be said that the reflected voltage was developed and delivered by a generator, a reflection generator. Although in this case the field is changing while the conductor is stationary, as in a transformer, it is motor-generator action nonetheless.) The new electric field induced by the changing magnetic field adds in phase to the existing electric field, and the new induced voltage (delivered by the reflection generator) adds in phase to the voltage in the forward wave, resulting in an increase of voltage at the open circuit to twice the voltage of the forward wave. At this instant, a standing wave is developing, because now there is a current minimum and a voltage maximum at the open-circuit termination, where an instant before, current and voltage were constant all along the line.
The new voltage at the open-circuit termination, along with its new electric field, starts a voltage wave traveling in the rearward direction, as if it had been launched by a separate generator at the open-circuit point. (It has---remember the induced voltage, generated by the changing magnetic field?) Since no energy was absorbed by the open-circuit load, the new rearward-traveling voltage wave has the

same magnitude as the original forward wave, which is why rho = 1, indicating total reflection. As the new electric field starts its rearward travel, it produces a new magnetic field, which in turn produces a new current, launched into the line as the reflected current wave with the same magnitude as the forward current wave, but with opposite polarity and direction. The new electric and magnetic fields combine to form the reflected electromagnetic field and, as in the forward electromagnetic-field wave, the energy in the reflected electromagnetic-field wave also divides equally between its electric and magnetic fields."

Walt, W2DU

3949. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 19:24:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f3be0e$1_2@spool9-west.superfeed.net>
Source record: 72216

Jim Kelley wrote:
> Since you're the only person in history to have ever claimed such a
> phenomenon occurs, the responsibility rests squarely with you to prove
> it exists.

I have quoted many references. That you choose to ignore them is
not my problem. Of course, they are not going to use identical
words to mine. Ham radio lingo has a flavor all it's own,
"reflections" being one of them. I am expecting any moment for
you to say a reversal of energy flow in a transmission line is
not always a reflection. That's how you resolve arguments - by
redefining words until your opponent is wrong, by definition.

> As I just got done saying, the only way for electromagnetic
> energy to change direction is by reflection. It seemed you understood
> that.

I certainly do and wave cancellation can cause a reflection,
i.e. a reversal of energy flow in a transmission line. It's
as simple as that. The "redistribution of energy in a different
direction" caused by wave cancellation can only occur in one
direction in a transmission line. If wave cancellation occurs
in one direction, the energy existing in the waves before they
were canceled must necessarily be distributed in the only other
direction possible. It's all explained on the optics web pages
that I previously posted.

> I understand them perfectly. You may recall that I introduced you to
> the Melles-Griot site. You on the other hand, misunderstand them.

When you introduced me to the Melles-Groit web page, you told
me what it said and I still think you were right. You were happy
for me because you had found something to support my concepts. After
a few days, you changed your mind and informed me that it didn't
say what you first thought it said. Maybe you should question what
caused your mind to change? Quite often, the first conclusion is the
correct one. So does it say what it says, or not?

> And you are clearly reading more into it than it clearly says (as
> evidenced by the fact that what you wrote and what it says are clearly
> not the same thing).

Clearly not identical but clearly meaning the same thing as
you said it meant when you first introduced me to that web page.
Why did you change your mind about what it said?

> Your interpretation is totally incorrect.

Then your initial interpretation of the Melles-Groit web page
information was totally incorrect. Why did you do a 180?

> Interference is an effect not a cause.

Interference is not an end effect. Interference can cause the
perception of light and dark rings on the human retina. Lots
of effects which have a cause, cause additional effects in
a chain of cause and effect events. Haven't you ever seen
the TV series "Connections" where one effect caused another
effect which caused another effect ...? So the spacing of the
wheels on a Roman chariot eventually dictated the maximum size
of the boosters on the Space Shuttle?

Interference in transmission lines can cause reflections which
is simply a redistribution of energy in the only other direction
possible. What is it about the "redistribution of energy caused
by interference" that you don't understand? It is explained on
those web pages. In a transmission line, dispersion and refraction
are mostly absent, so reflection is the only thing that can
possibly "redistribute the energy". We know the reflected energy
stops flowing toward the source in the transmission line at a
match point. Wonder what other possible direction it can take next?
That's a really tough question. ... I like you, Jim, because you
make me laugh.
--
73, Cecil http://www.qsl.net/w5dxp

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3950. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 19:36:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tmf7f19dtraq28hsna0u485j635o04h675@4ax.com>
Source record: 72217

On Fri, 05 Aug 2005 14:24:43 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>We know the reflected energy
>stops flowing toward the source in the transmission line at a
>match point.

And this has been proven to the precision of 1 place! If you leave
your thumb on the scale of the energy balance, you can say anything.

Jim's legacy (and those who silently share in it) is bountiful. :-)

3951. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 19:43:19 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dd0gaj$71d$1@news.service.uci.edu>
Source record: 72218

Cecil Moore wrote:
> Jim Kelley wrote:
>> I understand them perfectly. You may recall that I introduced you to
>> the Melles-Griot site. You on the other hand, misunderstand them.
>
>
> When you introduced me to the Melles-Groit web page, you told
> me what it said and I still think you were right. You were happy
> for me because you had found something to support my concepts. After
> a few days, you changed your mind and informed me that it didn't
> say what you first thought it said. Maybe you should question what
> caused your mind to change?

I know intimately well what caused me to change my mind. It doesn't make sense! It's insupportable by the underlying physics. I work in the field; I've asked E&M people about it. I didn't make up an explanation for this - YOU DID! Then you looked around to see if it was true. And you want to think that Melles-Griot confirms it. But it doesn't.

> Quite often, the first conclusion is the
> correct one. So does it say what it says, or not?

My second conclusion enjoyed the benefit of actually working through the problem. That's certainly not true in your case.

>> Interference is an effect not a cause.
>
>
> Interference is not an end effect.

You have no idea what you are talking about. You are making a fool of yourself. Since you don't believe me, try to get Melles-Griot or Eugene Hecht to confirm your theory that interference causes waves to reflect. Good luck with that OM.

ac6xg

3952. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 20:05:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f3c787$1_1@spool9-west.superfeed.net>
Source record: 72219

Richard Clark wrote:
> Jim's legacy (and those who silently share in it) is bountiful. :-)

Richard, I wish I could share my email with you.
There is only agreement and encouragement. The
only negative comment is that I stick with a
thread longer than I probably should.
--
73, Cecil http://www.qsl.net/w5dxp

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3953. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 20:42:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f3d050$1_1@spool9-west.superfeed.net>
Source record: 72220

Jim Kelley wrote:
> I know intimately well what caused me to change my mind. It doesn't
> make sense! It's insupportable by the underlying physics. I work in
> the field; I've asked E&M people about it. I didn't make up an
> explanation for this - YOU DID! Then you looked around to see if it was
> true. And you want to think that Melles-Griot confirms it. But it
> doesn't.

That's just your opinion, worth exactly what it costs. You have
presented no technical argument to prove your case. All you have
presented are logical diversions, personal opinions, and gut feelings.

Why do you refuse to answer the question: Given reflected energy
rejected by a mismatched load, what causes the reversal of direction
of the energy flow and momentum at the match point? It is a simple
question that you have avoided answering for months. One wonders why.

> You have no idea what you are talking about. You are making a fool of
> yourself.

Asserting that there is no before and after is foolish. Asserting
that a redistribution of energy in a transmission line must have
more than one choice is foolish. Implying that cause and effect
doesn't exist is foolish. Asserting that the waves involved
in wave cancellation don't exist is foolish.

If the waves involved in wave cancellation don't exist, then
wave cancellation is impossible. That's simple logic. If wave
cancellation doesn't exist, it follows that the energy flowing
toward the source is not zero even though we measure it at zero.
This is the logical hole that Dr. Best dug for himself and you
crawled right in after him. Dr. Best asserted that the two waves
keep flowing toward the load, canceling each other all the way
to somewhere (or nowhere). The concepts that you hold concerning
this subject are proven to be logically contradictory. You may
disagree, but I don't believe contradictions can exist in reality.
I believe they can only exist in human minds and yours obviously
contains a multitude. When I encounter a contradiction, I change
my mind. You obviously tolerate (and seem to enjoy) contradictions.
You even use contradictions as part of your arguments.
--
73, Cecil http://www.qsl.net/w5dxp

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3954. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 20:44:40 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3d2f$42f3cfd4$438df2d2$23463@ALLTEL.NET>
Source record: 72221

I have only found infallibility in Terman, Kraus, Maxwell, The Pope, and
now Cecil!

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42f3c787$1_1@spool9-west.superfeed.net...
> Richard Clark wrote:
> > Jim's legacy (and those who silently share in it) is bountiful. :-)
>
> Richard, I wish I could share my email with you.
> There is only agreement and encouragement. The
> only negative comment is that I stick with a
> thread longer than I probably should.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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3955. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 20:47:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f3d18b$1_1@spool9-west.superfeed.net>
Source record: 72222

Fred W4JLE wrote:
> I have only found infallibility in Terman, Kraus, Maxwell, The Pope, and
> now Cecil!

I apologize profusely, Fred, and will strive for infallibility.
--
73, Cecil http://www.qsl.net/w5dxp

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3956. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 20:51:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gkj7f1d61ijlv1hrr0lmikanpe8ltgv3p6@4ax.com>
Source record: 72223

On Fri, 05 Aug 2005 15:05:08 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I wish I could share my email with you.
>There is only agreement and encouragement.
Oh, how touching. Wallflower testimonials. Must be a couple of
thousand by now. Try sending them to your editor, at least it would
prove you have circulation capacity.
>I stick with a thread longer than I probably should.
You must find that mail pretty shallow then.

3957. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 20:53:13 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b1d73$42f3d1dd$438df2d2$24335@ALLTEL.NET>
Source record: 72224

You are my hero Cecil!

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42f3d18b$1_1@spool9-west.superfeed.net...
> Fred W4JLE wrote:
> > I have only found infallibility in Terman, Kraus, Maxwell, The Pope,
and
> > now Cecil!
>
> I apologize profusely, Fred, and will strive for infallibility.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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3958. Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 22:03:32 UTC
From: "S.Fritts" <w4sef@att.net>
Message-ID: <cao7f1lr66o1g2ob65ad8f9dun6v8s83ej@4ax.com>
Source record: 72076

In reference to the discussion about the fellow wanting to run several antennas with seperate ladder lines, is it ok to terminate the ladder line with a 4:1 balun and the run the coax from the balun to the tuner? I also want to run at least two center fed zepp type antennas fed with ladder line. Can I just terminate the ladder lines outside with a 4:1 balun on each and run two coax feed lines to an antenna switch inside the house?

I hope I am making myself clear on this.

Thanks

Steve W4SEF

3959. Feeding ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 23:00:23 UTC
From: "S.Fritts" <w4sef@att.net>
Message-ID: <jlr7f1tp0n5843u7rem2sh76n6786vf305@4ax.com>
Source record: 72077

I dont think my post got posted...I want to use two seperate antennas such as center fed zepp types.....can I feed each antenna with ladder line such as 450 ohm and then teminate each ladder line to two 4:1 baluns (one balun per line) and use 50 ohm coax to the shack? In other words, one balun per feed line the have 2 coaxes running in to the shack with an antenna switch.

Thanks

Steve
W4SEF

3960. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 23:09:24 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <h-adnepIEeE0bG7fRVn-oA@speakeasy.net>
Source record: 72078

Yes and Yes.

"S.Fritts" <w4sef@att.net> wrote in message
news:cao7f1lr66o1g2ob65ad8f9dun6v8s83ej@4ax.com...
>
> In reference to the discussion about the fellow wanting to run several
> antennas with seperate ladder lines, is it ok to terminate the ladder
> line with a 4:1 balun and the run the coax from the balun to the
> tuner? I also want to run at least two center fed zepp type antennas
> fed with ladder line. Can I just terminate the ladder lines outside
> with a 4:1 balun on each and run two coax feed lines to an antenna
> switch inside the house?
>
> I hope I am making myself clear on this.
>
> Thanks
>
> Steve W4SEF

3961. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-05 23:41:34 UTC
From: John Passaneau <w3jxp@adelphia.net>
Message-ID: <goOdnXWIx8-tZG7fRVn-rA@adelphia.com>
Source record: 72079

Hi Fritts:

Yes you can do that, why not? I would try and keep the coax run as short as possible because with a center feed zepp on most frequencies the SWR on the coax will be very high and the extra loss from the high SWR will eat up some of you power.

--
John Passaneau
State College Pa.
w3jxp@adelphia.net

"S.Fritts" <w4sef@att.net> wrote in message
news:cao7f1lr66o1g2ob65ad8f9dun6v8s83ej@4ax.com...
>
> In reference to the discussion about the fellow wanting to run several
> antennas with seperate ladder lines, is it ok to terminate the ladder
> line with a 4:1 balun and the run the coax from the balun to the
> tuner? I also want to run at least two center fed zepp type antennas
> fed with ladder line. Can I just terminate the ladder lines outside
> with a 4:1 balun on each and run two coax feed lines to an antenna
> switch inside the house?
>
> I hope I am making myself clear on this.
>
> Thanks
>
> Steve W4SEF

3962. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 00:03:02 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <hqGdnWb2iIAfY27fRVn-jg@comcast.com>
Source record: 72080

A 20# chain!!! N E V E R !!!!!!!!!

If I'm not riding, it I'm transporting it!

Like an ICOM 756 Pro III, it always has a chaperone :-)

Fred W4JLE wrote:
> Yep, you folks spend a fortune to get a bike 10 pounds lighter, then carry
> around a 20 pound chain to keep people from stealing it!
>
> Every other sport takes place on a field designed for the sport. You guys
> for the most part ride on the highways creating a hazard.
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:FMidnVH7w7PRD2_fRVn-gQ@comcast.com...
>
>>It's obvious that Fred doesn't ride. My bike costs more than many HF
>>rigs !!!
>>
>>BTW, in a crash, the BNC should break apart and have the coax tear out.
>>Solution, carry a cell phone and leave the radio at the shack!
>>
>>I carry a 2/440 HT.
>>
>>+ + +
>>
>>Fred W4JLE wrote:
>>
>>>I told Lance, and now I will tell you, if you get in my way in your
>
> little
>
>>>faggoty outfits and goofy helmets, I will run your ass over. Don't
>
> worry, I
>
>>>will call 911 and let them know where to pick up your traffic blocking
>
> body.
>
>>>
>>>"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
>>>news:QrPHe.35144$Eo.25151@fed1read04...
>>>
>>>

>>>>I'm looking for an antenna connector with the following
>>>>idea:
>>>>
>>>>I want to mount a spare 2m/440 mobile antenna on my
>>>>race bike and use my FT-51R ht on my belt with the
>>>>deluxe remote mic on the handlebars.
>>>>
>>>>Problem is that if I wreck, the radio will want to stay on
>>>>my belt but the coax going to the antenna won't! The mic
>>>>connector will pull out but the antenna connector (BNC)
>>>>will stay until something breaks. If I wreck, I may need my
>>>>HT to call for assistance (it's happened once before) I
>>>>need an inepensive 50 ohm pair of connectors that will slide
>>>>apart when pulled. Kinda like a push on F fitting but for
>>>>50 ohm RG-58 cable.
>>>>
>>>>The only ones I've thought of are the F fitting or an RCA
>>>>connection. Anybody know the impedance of an RCA plug?
>>>>
>>>>Are there push on BNC or 259 connectors? Cost matters.
>>>>
>>>>--
>>>> Just my 2ï¿½... 73 es gd dx de Ken KGï¿½WX
>>>> Grid EM17ip, Flying Pigs #-1055
>>>>Proud builder & owner of Elecraft K2 #4913
>>>>
>>>>
>>>
>>>
>>>
>
>

3963. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 00:06:45 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <hqGdnWH2iID8Ym7fRVn-jg@comcast.com>
Source record: 72081

Fred W4JLE wrote:

> The bikes have no mirrors, lights etc. "Gotta save that weight" I had one
> swerve to avoid a pothole, and sans a mirror pulled right in my path. I
> managed to avoid him.
>
>

I assume you mean you had to step aside ...

Be careful regarding mirror comments. Mine is fastened to my helmet.
[Gotta keep the weight off the bike :-)

3964. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 00:10:12 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <q8SdnVM2i-GsnWnfRVn-jQ@comcast.com>
Source record: 72082

Tom Ring wrote:

SNIPPED
> Part of the problem may lie with how the average bicycle rider acts in
> some places. I am not assuming you are a bad guy, but I saw a bike
> rider folded in half laying in the street, yes he was dead, last year in
> downtown Minneapolis and I was pleased.
>
> We have a nasty buch of assholes riding in our downtown. I had one kick
> by door becasue I didn't "yield" for him when I had the green light and
> he had the red.
>
> tom
> K0TAR

Hafta be kinds careful around here. Many Police Departments use officers on Bicycles. It's much more difficult to munch a donut, hold a coffee and pedal uphill.

Yes, bicyclists do have fatal accidents. I wonder if bicycle mobile is a contributing factor?

3965. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 00:25:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dd113k$e9c$1@news.service.uci.edu>
Source record: 72083

Cecil Moore wrote:

> Why do you refuse to answer the question: Given reflected energy
> rejected by a mismatched load, what causes the reversal of direction
> of the energy flow and momentum at the match point?

The only thing which can cause energy to change direction is reflection. I have answered that question every time you asked it. Perhaps you were just unable to grasp the meaning of the answer. It means that for an electromagnetic wave to reverse direction, it must encounter a change in the nature of the conducting medium.

Interference results when two or more waves superpose. The pattern is the amplitude resultant plotted as a function of position. It may be generated as a result of a reflection, but is not an entity which itself reflects waves. Impedance discontinuities or changes in the index of refraction - those things cause reflection. An interference pattern created by waves is still just waves arranged differently. Waves don't cause other waves to change direction. If you think they do, then you need to try to find some proof. Adding your misguided editorials to desriptions of interference doesn't qualify.

ac6xg

3966. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 01:10:53 UTC
From: richardharrison@webtv.net
Message-ID: <11195-42F40E1D-175@storefull-3257.bay.webtv.net>
Source record: 72085

Cecil, W5DXP wrote:
"What phenomenon of physics causes the energy and momentum in that wave to reverse direction?"

It must keep moving and if it can`t go somewhere it goes elsewhere.

Shorts and opens are a way to control current which in its magnitude, phase, and path produces fields.

In a transmission line or wave guide, waves are guided. In free-space, waves move away from the source.

In a small single-turn loop, the current everywhere within the loop is very nearly the same. A complete null is achieved on the axis of the loop (see 3rd edition of Kraus` "Antennas" page 204, Fig. 7-7).

The loop`s null results from equidistance along the axis srom corrent and fields which are in opposite directions. The fields are moving in the same directions but because of their opposite polarities add to zero along the axis.

So, to opens and shorts, equal and opposite radiation fields can be added to the list of things which cancel energy traveling in a certain direction. When a fixed rate of energy flow must be maintained, cancelled energy must emerge in the noncancelled directions. It`s energy conservation.

Best regards, Richard Harrison, KB5WZI

3967. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 01:17:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bg28f1l3ffncreeir3kv1j0lt2jv5s69mo@4ax.com>
Source record: 72084

On Fri, 05 Aug 2005 15:42:36 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> Why do you refuse to answer the question
On Fri, 05 Aug 2005 17:25:53 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
> I have answered that question every time you asked it.

Hmmm, an infinite reflection problem.

This certainly must be the single place precision proof for having
enough energy not to cancel anything.

C'mon guys, dress it up with some style or humor, otherwise it is like
watching C-SPAN with two politicians spitting at each other in an
empty chamber of congress. :-)

73's
Richard Clark, KB7QHC

3968. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 01:34:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f414b2$1_1@spool9-west.superfeed.net>
Source record: 72086

S.Fritts wrote:
> In reference to the discussion about the fellow wanting to run several
> antennas with seperate ladder lines, is it ok to terminate the ladder
> line with a 4:1 balun and the run the coax from the balun to the
> tuner? I also want to run at least two center fed zepp type antennas
> fed with ladder line. Can I just terminate the ladder lines outside
> with a 4:1 balun on each and run two coax feed lines to an antenna
> switch inside the house?

Why do you think you need a 4:1 balun?
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3969. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 02:10:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f41d2c$1_2@spool9-west.superfeed.net>
Source record: 72087

Jim Kelley wrote:
> The only thing which can cause energy to change direction is reflection.
> I have answered that question every time you asked it.

But that is a non-answer and you don't offer any idea as to the cause
of the reflection. What causes 100% re-reflection of reflected waves
in a matched system? You are still avoiding a valid answer.

> It means that for
> an electromagnetic wave to reverse direction, it must encounter a change
> in the nature of the conducting medium.

Assume it encounters a power reflection coefficient of 0.5 in a
matched system. What causes the reflection of the other half of
the reflected energy?

> Impedance discontinuities or changes in the index of
> refraction - those things cause reflection.

Yes, and wave cancellation in a transmission line only happens at
an impedance discontinuity so your assertion has no point.

> An interference pattern
> created by waves is still just waves arranged differently.

On the contrary, wave cancellation at a match point is permanent.
The waves cease to existence in the direction of the source. They
are not arranged differently. Your assertion is obviously false
for interference patterns at match points in transmission lines.
Before you go into a tirade, what you say is usually true, just
not for match points in transmission lines which is a special case.

> Waves don't cause other waves to change direction.

Normally, that's true. But when the two coherent waves disappear
from existence in the direction of the source, the conservation
of energy principle takes over. If the energy is not flowing
toward the source then it must necessarily flow toward the load.
That is such a simple concept it's hard to believe that you
cannot comprehend it. It's explained in the web page quote below.

> If you think they do, then you need to try to find some proof.

Isn't the following proof enough? They are talking about wave
cancellation such as happens at a non-reflective surface or a
match point in a transmission line.

"... when two waves of equal amplitude and wavelength that are 180-
degrees out of phase with each other meet, they are not actually
annihilated. All of the photon energy present in these waves must
somehow be recovered or redistributed in a new direction, according to
the law of energy conservation ..."

"Redistributed in a new direction" in a transmission line means
changing direction. What is it about that simple concept that
you fail to comprehend?
--
73, Cecil http://www.qsl.net/w5dxp

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3970. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 02:31:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f42225_2@spool9-west.superfeed.net>
Source record: 72088

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "What phenomenon of physics causes the energy and momentum in that wave
> to reverse direction?"
>
> So, to opens and shorts, equal and opposite radiation fields can be
> added to the list of things which cancel energy traveling in a certain
> direction.

Thanks Richard, that's what I have been trying to say. And the
"equal and opposite radiation fields" can occur inside a
transmission line at an impedance discontinuity. After all, an
RF transmission line signal is just EM wave-fields contained
by a boundary.

Walter Maxwell said such in "Reflections II", page 23-9:
"With equal magnitudes and opposite phase at the same point
(Point A, the matching point), the sum of the two waves is
zero."

When two waves sum to zero, their energy components must be
redistributed. In a transmission line, if energy ceases flowing
in one direction, it must change directions. That's a reflection.

So here's a list of things that can cause 100% re-reflection of
reflected energy in a transmission line. 1. short-circuit,
2. open-circuit, 3. pure reactance, 4. permanent wave cancellation
at an impedance discontinuity.
--
73, Cecil http://www.qsl.net/w5dxp

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3971. Re: How to get RG-213/U from shack to exterior

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 05:10:38 UTC
From: Paul Hinman <paul.hinman@shaw.ca>
Message-ID: <iDXIe.123517$5V4.117848@pd7tw3no>
Source record: 72089

Ham op wrote:

> John, you can use the wood or plastic insert without weather/winter
> concerns. I used the wood insert for three years. I solved the
> 'winter' problem [I'm in NH and winter temperature runs to -10F] by
> packing the space with fiberglass insulation. I used about 3 inches
> thick and never had a cool breeze. I had to be careful about keeping
> rain, etc. away fro the fiberglass [it swallows water very easily].
>
> John N9JG wrote:
>
>> The non-removable screen has a narrow aluminum frame. My current plan
>> is to drill through the wood sill, and patch the holes (both interior
>> and exterior) when I leave.
>>
>> The ground wire will be about 12 feet long, so for the higher bands
>> the ground will be ineffective unless I tune it. Actually, unless I
>> run the end of an antenna into the shack and load it against ground,
>> I should not need an rf ground.
>>
>> Thanks for your comments and suggestions.
>>
>>
>> "Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
>> news:QQRBe.8366$8f7.6598@newsread1.news.pas.earthlink.net...
>>
>>> Hi John,
>>>
>>> It's too bad your window does not lend itself to the spacer-with-holes
>>> approach, as I was also going to suggest that. Does that non-removable
>>> screen have a wide frame? If so, maybe you could go through holes
>>> in a window spacer, then through holes in the screen frame.
>>>
>>> In any case, you could save yourself one of those holes in the wall by
>>> letting your "ground" wire and the coax share one hole.
>>>
>>> Better yet, you could forget about the "ground" wire altogether--at
>>> least
>>> if you have a third-wire ground in your AC sockets. A long "ground"
>>> wire will be too puny and inductive to be any kind of RF ground. And
>>> if you have a power ground through the AC socket, adding a parallel
>>> ground path will just confuse things, increase your lightning risk, and
>>> possibly put you into a code violation.
>>>

>>> I have only AC-socket power grounds in my second floor shack, and
>>> I run QRO on 80 through 10 with no problems.
>>>
>>> 73, Ed, W6LOL
>>>
>>
>>
>>
>
A few years back we had a house fire and I had them leave a soft spot in
the wall with a cover plate on the inside. This spring I managed to
have the antenna installed but last winter we didn't have any problem
with cold and it gets to -40 up here (-40 is the same in F or C).

Paul

3972. Re: Feeding ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 06:15:18 UTC
From: F8BOE <f8boe@bluemail.ch>
Message-ID: <42f45582$0$15059$626a14ce@news.free.fr>
Source record: 72090

Hello?

Rather 300 Ohm and 1:6 current balun... Don't you?
Works perfectly here with a double OCFD. Well 450 Ohm is OK too.

73 de F8BOE Olivier ...-.-

S.Fritts wrote:

> I dont think my post got posted...I want to use two seperate antennas
> such as center fed zepp types.....can I feed each antenna with ladder
> line such as 450 ohm and then teminate each ladder line to two 4:1
> baluns (one balun per line) and use 50 ohm coax to the shack? In
> other words, one balun per feed line the have 2 coaxes running in to
> the shack with an antenna switch.
>
> Thanks
>
> Steve
> W4SEF

3973. Re: Suggestions?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 07:23:42 UTC
From: geggi1 <geirknu@start.no>
Message-ID: <9e2dnRDjNJDm-Gnf4p2dnA@telenor.com>
Source record: 72091

How about fixing your antenna to your helmet. You might look like an ET but
it will hopefully stay with you wreck.
"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:QrPHe.35144$Eo.25151@fed1read04...
> I'm looking for an antenna connector with the following
> idea:
>
> I want to mount a spare 2m/440 mobile antenna on my
> race bike and use my FT-51R ht on my belt with the
> deluxe remote mic on the handlebars.
>
> Problem is that if I wreck, the radio will want to stay on
> my belt but the coax going to the antenna won't! The mic
> connector will pull out but the antenna connector (BNC)
> will stay until something breaks. If I wreck, I may need my
> HT to call for assistance (it's happened once before) I
> need an inepensive 50 ohm pair of connectors that will slide
> apart when pulled. Kinda like a push on F fitting but for
> 50 ohm RG-58 cable.
>
> The only ones I've thought of are the F fitting or an RCA
> connection. Anybody know the impedance of an RCA plug?
>
> Are there push on BNC or 259 connectors? Cost matters.
>
> --
> Just my 2�... 73 es gd dx de Ken KG�WX
> Grid EM17ip, Flying Pigs #-1055
> Proud builder & owner of Elecraft K2 #4913
>

3974. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 09:54:12 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <j729f1htepmsd2po2b054jnb5qe12lr6lm@4ax.com>
Source record: 72092
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 30 Jul 2005 04:27:32 GMT, kashe@sonic.net Gave us:

>
>
> If you're keeping up with the conversation, top posting is far
>more efficinet then reading the bottom posters who expect ou to scroll
>through a hunderd liones oof crap so you can find out their
>contribution consisted of "Huh?"

You don't get it, asswipe. It isn't about YOUR convenience.

3975. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 09:57:15 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <hb29f1tmiu1bhsucvibqe7ij9svgvchepa@4ax.com>
Source record: 72093
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 30 Jul 2005 04:33:54 GMT, kashe@sonic.net Gave us:

> What a bunch of psychobabble. Keep your soft science (at best)
>off of a technical forum.

Do you like attempting (and failing) at telling others what to do?
Screw you, boy.

Like I said, if you claim to be so technical conform to the
protocol, don't bitch about how you like to be lazy and call it a
matter of convenience.

3976. Shunt Feeding a Tower for Top Band

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 09:57:33 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <dd21idegf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72094

Hi
I have just got planning permission for a 75 Foot tower. I plan on putting a Force 12 C31 XR (10-15-20) as well as a lightweight 50MHz and 144MHz yagis, and a rotable 7MHz Dipole up.

I plan on running top band by using a Gamma match to feed the tower against a good carpet of buried radials and a chicken wire mat.

My question is, does anyone here have experience of shunt feeding a tower for top band, and, does anyone have a formula for calculating the match ? What are you experiences, how good is the solution ?

(The formula is important as it will determine the type of tower I order, in terms of seftion length as I don't want to order a tower that although telescopic, has the gamma match feed pint half way up a telescoping section).

Thanks

Adrian Rees
M1LCR

3977. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 09:58:19 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <og29f11aauf80pm8inmp5vnc3ogt356kb8@4ax.com>
Source record: 72095
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 30 Jul 2005 04:37:34 GMT, kashe@sonic.net Gave us:

>
> Fuck the dilettantes -- if they're hot to find out what the
>top post was about wjen they "pop in", let them get off their lazy
>asses and scroll down. I've already read all that crap and don't feel
>like scrolling past it for thirty posts in a row.
>
> If you can't keep up with the flow, move to
>alt.kindergarten.reading.level.
>
> Help us all out by "popping out".

Fuck you, asswipe.

3978. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 09:59:37 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <pi29f1ljt5i7pne9d4f3191lo1i79bddv0@4ax.com>
Source record: 72096
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 30 Jul 2005 04:44:57 GMT, kashe@sonic.net Gave us:

>
>(Bottom posted so that you don't have to give up too many of our
>precious IQ points to find it.)

Yeah...I'm quite sure that you don't have many left.

3979. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 10:01:40 UTC
From: NunYa Bidness <nunyabidness@nunyabidness.org>
Message-ID: <vm29f15mn5stsih6lrto69f1d9kg1pq05l@4ax.com>
Source record: 72097
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 29 Jul 2005 22:13:33 -0700, "John Smith"
<assemblywizard@gmail.com> Gave us:

>kashe:
>
>You are in good form tonight, I am splitting a gut reading those responses of
>yours! <grin>
>
>I was bored and headed for bed, till you showed up...
>

You're both retarded.

3980. Re: Shunt Feeding a Tower for Top Band

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 13:07:01 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <VB2Je.2885$iE.237@trnddc06>
Source record: 72098

Hi Adrian,

The feed point will depend on the geometry of the gamma match wire.
A large cage requires a shorter gamma wire than a thin gamma cage.

For my tower, a 6" diameter 3-wire cage spaced 2-1/2 feet from the tower
was about 34 feet high at the 12.5 ohms point. It was replaced with a 1"
diameter
aluminum tube and the feedpoint moved up to 42 feet high at the 12.5 ohm
point.
This is for topband. The wire cage kept breaking due to wire fatigue (we
have a lot
of wind here), the aluminum tube is much more reliable.

The 12.5 ohm feedpoint at 1850 KHz turns out to be a 50 ohms feedpont
at about 3750 KHz. Using a 4:1 transformer, one can thus select this gamma
feed for either 160 or 80 meters.

A 50 ohm feedpoint on topband would be *rougly* twice the lengths quoted
above.

The gamma capacitor is a 15 kv vacuum variable with a homebrew stepper motor
to turn the capacitor. Tuning the capacitor allows full coverage 1.8-2 MHz.
and 3.5-4 MHz.
An assortment of wide-spaced air variables all arced badly at 1.5 KW power
level.

-- Tom

"Adrian Rees (M1LCR)" <rees.a@btconnect.com> wrote in message
news:dd21idegf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Hi
> I have just got planning permission for a 75 Foot tower. I plan on putting
> a
> Force 12 C31 XR (10-15-20) as well as a lightweight 50MHz and 144MHz
> yagis,
> and a rotable 7MHz Dipole up.
>
> I plan on running top band by using a Gamma match to feed the tower
> against
> a good carpet of buried radials and a chicken wire mat.
>
> My question is, does anyone here have experience of shunt feeding a tower
> for top band, and, does anyone have a formula for calculating the match ?
> What are you experiences, how good is the solution ?
>

> (The formula is important as it will determine the type of tower I order,
> in
> terms of seftion length as I don't want to order a tower that although
> telescopic, has the gamma match feed pint half way up a telescoping
> section).
>
> Thanks
>
> Adrian Rees
> M1LCR
>
>
>

3981. Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 13:45:53 UTC
From: Yves Dussault <yvesNOdussault@videotron.ca>
Message-ID: <kmf9f15soctesl0eacofcm5ojhudv5f9r0@4ax.com>
Source record: 72099

I'm thinking of getting a Buddipole antenna.
I would loke comments on that antenna.
Thanks.
VE2ATD

3982. Looking for Butternut HF9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 16:27:09 UTC
From: solidgoldZZZ@optonline.net
Message-ID: <42f4e4dc.1800372@news.optonline.net>
Source record: 72100
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Hi all,

I am looking for a used Butternut HF9V vertical. If you do, please reply to this message. Remove the "ZZZ" from my E-mail address.

Thanks,

RON KA2IIA
==========
Remove the ZZZ from my E-mail address to send me E-mail.

3983. A Simple Conceptual Example in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 18:45:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c90af1t3auroiviiuglvtdps6h2h2geju8@4ax.com>
Source record: 72101

Returning again with a new example, described in text as:

1w | 1/4WL | |/
laser-----air-----|---Si Crystal---|---Al contact--- |/
1st medium | 2nd medium | 3rd medium |/
n = 1.0 n = 5.8275 n >> 6

where:
the laser is in the UV/deep Blue (355nm to 360nm)
the second medium is a single crystal of Silicon
the third medium is a reflective aluminum contact.

When you take the intensity times the area for both the reflected and
refracted beams, the total energy flux must equal that in the incident
beam. That equation appears as:
(rï¿½ + (tï¿½ ï¿½ n2ï¿½ ï¿½ cos(theta-t) / n1ï¿½ ï¿½ cos(theta-i))) = 1

It stands to reason that this can be quickly reduced without need to
use transcendentals for an angle of incidence of 0ï¿½ (which results in
a refractive angle of 0ï¿½). All that needs to be known are the
coefficients which for that same angle simplify to
r = 0.7071 a value that is the limit of an asymptote;
it is also invested with either a + or - sign depending
upon the polarization (another issue that was discarded
in the original discussion as more unknown than immaterial)
t = 0.7071 a value that is the limit of an asymptote;
here, too, there are polarization issues we will discard as
before. All this discarding comes only by virtue of squaring:
rï¿½ = 0.5000
tï¿½ = 0.5000
I presume that the remainder of the math can be agreed to exhibit:
that part of the energy reflected amounts to 50%
and that part of the energy transmitted amounts to 50%.

In this example (a farrago, to say the least), it is overwhelmingly
obvious that when the incident energy strikes the first interface that
half of it is reflected and half of it transmitted (a common
specification for this specie). Even more obvious is that the sum
total of all re-reflections between the interfaces (and it has been
absurdly guaranteed that no energy will ever transit the aluminum
mirror) will combine in the proper phase relationship to "totally"
cancel the first reflection.

Now, what to make of this black mirror? The same conservation of
energy has been maintained as has been exhibited in other threads of
this ilk. That conservation expressed above as both a commentary and

a formula is satisfied and "total" cancellation has been presented.

To wit, and in former expressions:

Observing the conservation of energy at the first interface:
X = 0.5000X + 0.5000X
Observing the conservation of energy at the second interface:
0.5000X = 0.5000X + 0.0000X

0.5000X == 0.5000X

Of course, to put the lie to this example, no mirror is completely reflective. Some in these "debates" wanted to inject loss, or the lack of perfection. This should satisfy those who need this smudgy focus.

To brush aside those anticipated rejections requires only expressing what fraction the "best" mirror could provide, and simple trim the wavelength of the source to match the numbers. Let me offer:

We have a mirror that is only 98% reflective (it would exhibit a refractive index more than 1000 in this example). By slipping the wavelength 2nm shorter (actually there are other wavelengths that support these indices, but this is as illustrative as any); then we can allow for 49.5% reflection, a 50.5% transmission, a subsequent summation of all reflections with the 98% mirror to once again exhibit:
Observing the conservation of energy at the first interface:
X = 0.495X + 0.505X
Observing the conservation of energy at the second interface:
0.505X = 0.495X + 0.010X

0.495X == 0.495X

Choose another mirror efficiency and one need only perform like wavelength adjustments to obtain the necessary energy.

As I've offered in other posts, the "total" cancellation is entirely driven by very simple optics which resolve to obvious ratios in the expression of conservation of energy.

And, of course, "total" is not. ;-)

Even with this pencil-whipping out 4 places, the reflection products that remain (in the 5th place) in this example are vastly brighter than the sun (for those who see this wavelength). Also note that the complete exercise reveals through the conservation of energy that there is a loss (due to the incomplete reflection of the in-efficient mirror) and that all energies add to the energy applied to the system.

73's
Richard Clark, KB7QHC

3984. Re: A Simple Conceptual Example in Discussing Thin Layer Reflections

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 19:52:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f51627$1_2@spool9-west.superfeed.net>
Source record: 72102

Richard Clark wrote:
> Returning again with a new example, described in text as:
>
> 1w | 1/4WL | |/
> laser-----air-----|---Si Crystal---|---Al contact--- |/
> 1st medium | 2nd medium | 3rd medium |/
> n = 1.0 n = 5.8275 n >> 6

> As I've offered in other posts, the "total" cancellation is entirely
> driven by very simple optics which resolve to obvious ratios in the
> expression of conservation of energy.

Uhhhhhhh Richard, that is not a matched example so, of course,
there is no total cancellation of reflections. Why do you
think a mis-matched system would ever have total cancellation?

What can we do to make it a matched example?
Make n3 = 5.8275^2 = 33.93. I have no idea what medium 3 is
made out of but it also has to reflect 1/2 the energy incident
upon its surface. Now the reflectance (power reflection coefficient)
equals 0.5 and is the same at discontinuity A as it is at
discontinuity B. The 3rd medium will be considered to be infinite
for purposes of simplicity.

1w 1st medium | 1/4WL |
laser-----air-----|---2nd medium---|---3rd medium--->...
n = 1.0 | n = 5.8275 | n=33.93
A B

Now it is matched and reflections are totally canceled. The
forward power in medium 1 is 1W. The reflected power in medium 1
is zero. The forward power in medium 2 is 2W. The reflected
power in medium 2 is 1W. The forward power in medium 3 is
1W. The reflected power in medium 3 is zero.

The above example is akin to the following transmission line
example with identical forward and reflected powers.

1/4WL
1W XMTR---50 ohm line---+---291.4 ohm line---+---1698 ohm load
A B
Pfor1=1W--> Pfor2=2W--> PL=1W
<--Pref1=0W <--Pref2=1W

This is a Z0-matched system with no reflections on the 50 ohm
line. The fact that half the power is reflected at each discontinuity
makes it easy to calculate and recognize.

****
In a lossless matched system where half the power is reflected at each
discontinuity, the forward power in medium 2 will be exactly double
the forward power in medium 1.
****

Please read that over until you understand it and then try to figure
out why. Hint: it is not a violation of the conservation of energy
principle. Soon the hole you have dug for yourself will be so deep,
you won't be able to reach your keyboard. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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3985. Re: Shunt Feeding a Tower for Top Band

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 20:57:16 UTC
From: John - kd5yi <groups5MUNGE@verizon.net>
Message-ID: <dd387h01tiq@enews2.newsguy.com>
Source record: 72103

Wow! Great hands-on practical information.

I don't post to groups much, but I had to reply as this was too good to pass up. We need more of this.

Thanks, Tom.

John (KD5YI)

"TOM" <noname@noprovider.nodomain> wrote in message news:VB2Je.2885$iE.237@trnddc06...
> Hi Adrian,

3986. W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 21:29:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f52cc3$1_1@spool9-west.superfeed.net>
Source record: 72104

Here's the latest picture of me at the microphone.

http://www.qsl.net/w5dxp/w5dxp.jpg

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3987. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 21:37:30 UTC
From: puns <puns@verizon.net>
Message-ID: <u4aJe.6849$Y2.6672@trnddc09>
Source record: 72105

Don't Be Cruel
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42f52cc3$1_1@spool9-west.superfeed.net...
> Here's the latest picture of me at the microphone.
>
> http://www.qsl.net/w5dxp/w5dxp.jpg
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
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> Newsgroups
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3988. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 21:51:41 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <916b0$42f530f7$438df2d2$31119@ALLTEL.NET>
Source record: 72106

You ain't nothing but a hound dog...

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42f52cc3$1_1@spool9-west.superfeed.net...
> Here's the latest picture of me at the microphone.
>
> http://www.qsl.net/w5dxp/w5dxp.jpg
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
Newsgroups
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3989. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 22:08:22 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <qxaJe.1545$Z87.335@newssvr14.news.prodigy.com>
Source record: 72107

Hopefully, "Elvis has left the building" !

Fred W4JLE wrote:
> You ain't nothing but a hound dog...
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42f52cc3$1_1@spool9-west.superfeed.net...
>
>>Here's the latest picture of me at the microphone.
>>
>>http://www.qsl.net/w5dxp/w5dxp.jpg

3990. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 22:42:15 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <e5faf1dt5uosftns60m8bvmcuupgod1vju@4ax.com>
Source record: 72108

On Sat, 06 Aug 2005 16:29:20 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Here's the latest picture of me at the microphone.
>
>http://www.qsl.net/w5dxp/w5dxp.jpg
>
>
>-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
>http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
>---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Is that a Heil?

Russ - kf4wxd

3991. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 23:29:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f54909$1_2@spool9-west.superfeed.net>
Source record: 72110

Russ wrote:
> Is that a Heil?

Not bad for a Rat Shack :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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3992. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 23:48:43 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <pan.2005.08.06.23.48.43.19244@oceanfree.net>
Source record: 72109

On Sat, 06 Aug 2005 16:29:20 -0500, Cecil Moore wrote:

> Here's the latest picture of me at the microphone.

Thank yuh verra much.

73, Ed. EI9GQ.

--
Linux 2.6.12.1
Remove 'X' to reply by e-mail.

3993. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-06 23:54:04 UTC
From: Art Clemons <n8blk@aolSPAM.com>
Message-ID: <R5OdnRCCc5wB0GjfRVn-tg@comcast.com>
Source record: 72111

Cecil Moore wrote:

> Here's the latest picture of me at the microphone.

So where's Mr. Kennedy? For those who wonder why I mention Kennedy, go
watch Bubba Ho-Tep.

3994. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 01:52:45 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f5696d$0$32203$39cecf19@news.twtelecom.net>
Source record: 72112
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Too bad that we don't care about you.

NunYa Bidness wrote:
> On Sat, 30 Jul 2005 04:27:32 GMT, kashe@sonic.net Gave us:
> You don't get it, asswipe. It isn't about YOUR convenience.

3995. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 01:55:00 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f569f4$0$32203$39cecf19@news.twtelecom.net>
Source record: 72113
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Nice responce. You have to love the people coming out of engineering
schools today.

tom
K0TAR

NunYa Bidness wrote:
>
> You're both retarded.

3996. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 10:03:42 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <20lJe.632$Dm5.498@newsfe6-gui.ntli.net>
Source record: 72114
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Tom Ring wrote:
> Nice responce. You have to love the people coming out of engineering
> schools today.
>
was it an approved school?
--
;-)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3997. Re: Pi network question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 10:04:56 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <rkmbf15e2d8m7k88rn6fcc683oaj0q2unq@4ax.com>
Source record: 72115

KJ4UO asked:

>If I tune my SWR for 1:1 and go back and measure each value of the
>capacitors and inductor, is there a equation or computer program I can
>use these measured values to obtain my complex impedance at the input
>of the coax cable?

Jim Tonne, WB6BLD, wrote a program in Visual Basic that does
precisely that for all common tuner configurations. It is
called Revload and can be downloaded for free from:

http://www.tonnesoftware.com/revload.html

You may want to check out his other ham-radio related programs,
listed on his main page:

http://www.tonnesoftware.com/

As others have pointed out, this is not a particularly accurate
way of measuring impedance, but it should be adequate for "ballpark"
estimates.

Jim, K7JEB

3998. Re: Shunt Feeding a Tower for Top Band

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 12:40:57 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <dd4vgohhd1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72116

Hi Tom

Thanks very much for the information. Well, I have done some calculations, and gert a very similar result.
My calculations are based upon a 4 wire Gamma cage, consisting of 4 wires, each made up of 7 strands of 0.5mm wire. (The sort of stuff you can get in the UK that electricians use for lighting). Each of the 4 wires are insulated. These are held in a box secton (wire at each corner) by a copper plate spacer. (1.5mm 6 and a half inch square copper plate). Each wire is soldered to the corners of the copper plate, and each plate is spaced 3 feet apart. So effectively the match becomes a 6 inch square copper bar. (well near enough).

Spacing this like yours at 2 and half feet from the tower shows a Gamma match point at 28 Feet. This is getting close to what I want at 26 Feet, (Bottom section of the Tower is 26 Feet high and I want to be able to lower the tower, without unhooking a gamma section.)
I'll rework the calculations with 8 wires and see if that lowers the height, if not I'll try different spacing.

(I often get called away urgently and the XYL may need to lower the tower. The simpler it is the better. Ie don't want her to have to unhook a Gamma match, then do X, then Y then lower the tower, you get my drift?)

Thanks Again

73

Adrian M1LCR

"TOM" <noname@noprovider.nodomain> wrote in message
news:VB2Je.2885$iE.237@trnddc06...
> Hi Adrian,
>
> The feed point will depend on the geometry of the gamma match wire.
> A large cage requires a shorter gamma wire than a thin gamma cage.
>
> For my tower, a 6" diameter 3-wire cage spaced 2-1/2 feet from the tower
> was about 34 feet high at the 12.5 ohms point. It was replaced with a 1"
> diameter
> aluminum tube and the feedpoint moved up to 42 feet high at the 12.5 ohm
> point.
> This is for topband. The wire cage kept breaking due to wire fatigue (we
> have a lot
> of wind here), the aluminum tube is much more reliable.
>

> The 12.5 ohm feedpoint at 1850 KHz turns out to be a 50 ohms feedpont
> at about 3750 KHz. Using a 4:1 transformer, one can thus select this gamma
> feed for either 160 or 80 meters.
>
> A 50 ohm feedpoint on topband would be *rougly* twice the lengths quoted
> above.
>
> The gamma capacitor is a 15 kv vacuum variable with a homebrew stepper
motor
> to turn the capacitor. Tuning the capacitor allows full coverage 1.8-2
MHz.
> and 3.5-4 MHz.
> An assortment of wide-spaced air variables all arced badly at 1.5 KW power
> level.
>
>
> -- Tom
>
>
>
>
>
>
>
>
>
>
>
> "Adrian Rees (M1LCR)" <rees.a@btconnect.com> wrote in message
> news:dd21idegf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > Hi
> > I have just got planning permission for a 75 Foot tower. I plan on
putting
> > a
> > Force 12 C31 XR (10-15-20) as well as a lightweight 50MHz and 144MHz
> > yagis,
> > and a rotable 7MHz Dipole up.
> >
> > I plan on running top band by using a Gamma match to feed the tower
> > against
> > a good carpet of buried radials and a chicken wire mat.
> >
> > My question is, does anyone here have experience of shunt feeding a
tower
> > for top band, and, does anyone have a formula for calculating the match
?
> > What are you experiences, how good is the solution ?
> >
> > (The formula is important as it will determine the type of tower I
order,
> > in

> > terms of seftion length as I don't want to order a tower that although
> > telescopic, has the gamma match feed pint half way up a telescoping
> > section).
> >
> > Thanks
> >
> > Adrian Rees
> > M1LCR
> >
> >
> >
>
>

3999. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 12:44:15 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <dd4vmv$814$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72117

Things people do to work DX !

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:42f52cc3$1_1@spool9-west.superfeed.net...
> Here's the latest picture of me at the microphone.
>
> http://www.qsl.net/w5dxp/w5dxp.jpg
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
Newsgroups
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4000. Test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 13:35:45 UTC
From: streamliner@aol.com
Message-ID: <42f60e04.66469898@usenet.magma.ca>
Source record: 72118

Test only,new connection.

4001. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 14:24:21 UTC
From: F8BOE <f8boe@bluemail.ch>
Message-ID: <42f61998$0$15059$626a14ce@news.free.fr>
Source record: 72119

Good backyard weekend project!
Easy to make, and handle.
I might perhaps make one too...
F8BOE

Yves Dussault a ï¿½crit :
> I'm thinking of getting a Buddipole antenna.
> I would loke comments on that antenna.
> Thanks.
> VE2ATD

4002. Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 15:31:21 UTC
From: ricknj10@hotmail.com
Message-ID: <42f626da.87154906@news.optonline.net>
Source record: 72120

Regarding the potential hazards involved in using raised radials on a vertical - I'd be interested in comments from readers of this newsgroup.

The antenna installation proposed is a vertical installed through the roof of a building. For many reasons it would be preferable to keep the radials inside the attic. My concern is possible danger due to the high voltages incurred at the ends of the radials. The antenna will be a SteppIR vertical for 40-10 meters with the base just under the roof, protruding through the roof. At the base will be a number of resonant radials fanning out throughout the attic. My concern is if this poses a fire hazard due to arcing (corona, whatever) at the ends of the radials. It may not be convenient to suspend the radials over their entire length or provide high quality suspended insulators at the wire ends. So what danger is there in letting radials lay on the floor of the attic, attached to the roof rafters, or even poked down inside the studs of the walls? I think we can assume the attic will be dry, except for normal Seattle humidity !!

Rick K2XT

4003. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 15:35:39 UTC
From: ricknj10@hotmail.com
Message-ID: <42f629a0.87865375@news.optonline.net>
Source record: 72121

As a followup to my question, I guess the concept or the question is no different than if it referred to a dipole instead of radials on a vertical. The concern is protection from the high voltage at the end of the wire, and the potential of it causing a fire.
So it is really a very general question, considering the numbers of antennas hams are having to disguise or hide inside their homes these days.

Rick K2XT

4004. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 16:23:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dd5cio$8vi$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72122

Unless you run kilowatts you have nothing to worry about. To be on the safe side. just use thick plastic covered wire for your radials taking a little extra care at the extreme ends. Inspect every few years.

If by some very remote chance arcing should occur your SWR meter will jump about and you will be obliged immediately to investigate whatever is the cause, radials or anything else.
==========

4005. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 16:31:08 UTC
From: rstealey@hotmail.com
Message-ID: <42f63715.91310296@news.optonline.net>
Source record: 72123

>If by some very remote chance arcing should occur your SWR meter will
>jump about

Good point, thanks for the info.,

4006. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 17:42:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dd5h5c$2o7$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72124

> >If by some very remote chance arcing should occur your SWR meter
will jump about
>
> Good point, thanks for the info.,

--

Rick, You are welcome.

I have on occasion, for educational reasons and to avoid the many misunderstandings, recommended a change in the name of the ubiquitous SWR meter. It does not measure SWR and usually there is no line on which the SWR purports to be measured. And reflected power is somewhat meaningless or at least useless information.

However, where it is located, it is an extremely valuable indicating instrument. I have suggested the name be changed to TLI (Transmitter Loading Indicator) which it actually is. Unfortunately, there are too many old wives in the way and it interferes with their ancient, pre-1950 traditions.

Reg, G4FGQ

4007. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 18:00:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f64d38$1_1@spool9-west.superfeed.net>
Source record: 72125

Rick K2XT wrote:
> As a followup to my question, I guess the concept or the question is
> no different than if it referred to a dipole instead of radials on a
> vertical. The concern is protection from the high voltage at the end
> of the wire, and the potential of it causing a fire.
> So it is really a very general question, considering the numbers of
> antennas hams are having to disguise or hide inside their homes these
> days.

In a vertical dipole, you have only one "radial" which carries
the same currents and voltages as the upper vertical element.
Seems to me, when one has multiple radials, the energy in each
radial has to be the total energy available divided by the number
of radials. Therefore, the voltage at the ends of 1/4WL radials
should decrease as the number of radials is increased.

This seems to be another way that distributed networks differ
from lumped circuits. We might even be able to calculate the
voltage at the ends of the radials, given the number of radials
and the total power available to the radial system.
--
73, Cecil http://www.qsl.net/w5dxp

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4008. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 18:18:58 UTC
From: Mark Veldhuis <me@privacy.net>
Message-ID: <dd5jajelg1@news6.zwoll1.ov.home.nl>
Source record: 72126

Hi,

OK, 1 more clip. I know I could try to find the source of the noise by using as portable radio + loop antenna, but my ALA is mounted on the shed and I have no other loop available. Maybe someone can identify a possible noise source by listening to the clip, or at least give more tips. If not, I'll try to walk around the neighbourhood with just a portable, and see what the results of that are.

The noise/buzz on this clip is stronger than on the previous one.

Thanks in advance!

http://www.mark-veldhuis.nl/audio.mp3

--

73',

Mark Veldhuis.

4009. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 19:03:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <thmcf1d6q15jqs8j6ekov8u3beossa4r9m@4ax.com>
Source record: 72127

On Sun, 7 Aug 2005 20:18:58 +0200, Mark Veldhuis <me@privacy.net>
wrote:

>The noise/buzz on this clip is stronger than on the previous one.
>
>Thanks in advance!
>
>http://www.mark-veldhuis.nl/audio.mp3

Hi Mark,

This is more distinctive, and I have heard this before. I do not
think it is local noise, sounds more like jamming. In fact, it may
not be on the frequency you think it is, but rather is an IF image.

Try tuning around 910KHz higher (or lower) in frequency to see if you
can hear the same thing. (910KHz will only work if your receiver has
an IF of 455KHz)

73's
Richard Clark, KB7QHC

4010. Re: Buzzz on my Wellbrook ALA 1530 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 19:10:13 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <bad80$42f65c9e$438df2d2$4108@ALLTEL.NET>
Source record: 72128

A noise vary similar was traced to a neighbor's battery charger for an
electric scooter.

"Mark Veldhuis" <me@privacy.net> wrote in message
news:dd5jajelg1@news6.zwoll1.ov.home.nl...
> Hi,
>
> OK, 1 more clip. I know I could try to find the source of the noise by
> using as portable radio + loop antenna, but my ALA is mounted on the
> shed and I have no other loop available. Maybe someone can identify a
> possible noise source by listening to the clip, or at least give more
> tips. If not, I'll try to walk around the neighbourhood with just a
> portable, and see what the results of that are.
>
> The noise/buzz on this clip is stronger than on the previous one.
>
> Thanks in advance!
>
> http://www.mark-veldhuis.nl/audio.mp3
>
> --
>
>
> 73',
>
>
> Mark Veldhuis.

4011. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 19:22:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dd5n18$6h9$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72129

Cec, don't you think you should take diameter of radials as well as their number into account. Also their angle, and the height above ground, or their distance from the brickwork, roof beams and rafters when in an attic.

Do you have an equation for Volts = Function(number, frequency, watts, length, diameter, angle, height, etc) ?

Reg, G4FGQ

4012. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 20:19:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f66dd6$1_2@spool9-west.superfeed.net>
Source record: 72130

Reg Edwards wrote:
> Cec, don't you think you should take diameter of radials as well as
> their number into account. Also their angle, and the height above
> ground, or their distance from the brickwork, roof beams and rafters
> when in an attic.

Actually, I was thinking free space when I wrote that. It
was a qualitative answer, Reg, not a quantitative one.

> Do you have an equation for Volts = Function(number, frequency,
> watts, length, diameter, angle, height, etc) ?

Only a ballpark figure, Reg, which should be good enough.
Since balanced radials don't radiate (much), it should
be a piece of cake for you to come up with a piece of
software that calculates voltage at the tips Vs number
of radials. Let me know if you need any help. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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4013. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 22:37:18 UTC
From: joe <joe@antenna_dude.com>
Message-ID: <42F68D1C.F274D2ED@antenna_dude.com>
Source record: 72131

http://www.eham.net/reviews/detail/2651

More reviews of the antenna.

73 joe

Yves Dussault wrote:

> I'm thinking of getting a Buddipole antenna.
> I would loke comments on that antenna.
> Thanks.
> VE2ATD

4014. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 23:16:25 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <QPudnYwlftjaC2vfRVn-hg@speakeasy.net>
Source record: 72132

Rick,
One thought - I'd be very concerned about RF getting into the entire house system, especially stereos and tv's, depending on how your "radials" align with house wiring and how proximate they are. I had a dipole 15 feet off the roof of my house and at 1 KW, it wasn't a pretty sight...burglar and fire alarms going off, night lights blinking (the KW is on a separate 220 line), stereo speakers talking donald duck...the whole house rebelled. So now I am repositioning it out in the back pasture. The only alternative is QRP!
73,
Greg, N6GK

"Rick K2XT" <ricknj10@hotmail.com> wrote in message
news:42f626da.87154906@news.optonline.net...
> Regarding the potential hazards involved in using raised radials on a
> vertical - I'd be interested in comments from readers of this
> newsgroup.
>
> The antenna installation proposed is a vertical installed through the
> roof of a building. For many reasons it would be preferable to keep
> the radials inside the attic. My concern is possible danger due to
> the high voltages incurred at the ends of the radials. The antenna
> will be a SteppIR vertical for 40-10 meters with the base just under
> the roof, protruding through the roof. At the base will be a number
> of resonant radials fanning out throughout the attic. My concern is
> if this poses a fire hazard due to arcing (corona, whatever) at the
> ends of the radials. It may not be convenient to suspend the radials
> over their entire length or provide high quality suspended insulators
> at the wire ends. So what danger is there in letting radials lay on
> the floor of the attic, attached to the roof rafters, or even poked
> down inside the studs of the walls? I think we can assume the attic
> will be dry, except for normal Seattle humidity !!
>
> Rick K2XT

4015. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-07 23:18:55 UTC
From: jgboyles@aol.com
Message-ID: <1123456735.674265.301380@g49g2000cwa.googlegroups.com>
Source record: 72133

Yves Dussault wrote:
> I'm thinking of getting a Buddipole antenna.
> I would loke comments on that antenna.
> Thanks.
> VE2ATD

The Buddipole is a short, loaded portable antenna. Works OK for camping, pedestrian mobile, field day, mobile and any number of other uses. I would not use it as my primary antenna at my home QTH.
Gary N4AST

4016. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 02:47:27 UTC
From: "S.Fritts" <w4sef@att.net>
Message-ID: <ashdf1tdmpgpsqqo2hen08ttnv8ru16l81@4ax.com>
Source record: 72134

Because you cant run 50 ohm output to a 450 ohm impedeance.....

thanks to all who answered

Steve

On Fri, 05 Aug 2005 20:34:23 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>S.Fritts wrote:
>> In reference to the discussion about the fellow wanting to run several
>> antennas with seperate ladder lines, is it ok to terminate the ladder
>> line with a 4:1 balun and the run the coax from the balun to the
>> tuner? I also want to run at least two center fed zepp type antennas
>> fed with ladder line. Can I just terminate the ladder lines outside
>> with a 4:1 balun on each and run two coax feed lines to an antenna
>> switch inside the house?
>
>Why do you think you need a 4:1 balun?

4017. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 02:47:51 UTC
From: "S.Fritts" <w4sef@att.net>
Message-ID: <1uhdf1lobg6bkgsn4er8773mh7qplt4pqe@4ax.com>
Source record: 72135

Thanks to all who answered.

Steve
W4SEF

On Fri, 05 Aug 2005 22:03:32 GMT, S.Fritts <w4sef@att.net> wrote:

>
>In reference to the discussion about the fellow wanting to run several
>antennas with seperate ladder lines, is it ok to terminate the ladder
>line with a 4:1 balun and the run the coax from the balun to the
>tuner? I also want to run at least two center fed zepp type antennas
>fed with ladder line. Can I just terminate the ladder lines outside
>with a 4:1 balun on each and run two coax feed lines to an antenna
>switch inside the house?
>
>I hope I am making myself clear on this.
>
>Thanks
>
>Steve W4SEF

4018. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 02:48:50 UTC
From: "S.Fritts" <w4sef@att.net>
Message-ID: <00idf1l1ca6lgdfl4rpshrhct2jsmh7m1v@4ax.com>
Source record: 72136

Fits you perfectly

On Sat, 06 Aug 2005 16:29:20 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Here's the latest picture of me at the microphone.
>
>http://www.qsl.net/w5dxp/w5dxp.jpg
>
>
>-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
>http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
>---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4019. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 02:59:34 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <0kidf1l55evdsgg6b00qks5tqlfj0mnmo0@4ax.com>
Source record: 72137

On Sat, 06 Aug 2005 16:29:20 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Here's the latest picture of me at the microphone.
>
>http://www.qsl.net/w5dxp/w5dxp.jpg

Did you keep the wig after you turned in the costume :-)

Bob
k5qwg

>
>
>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
>http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
>---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4020. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 03:14:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f6cf3c$1_2@spool9-west.superfeed.net>
Source record: 72138

S.Fritts wrote:
> Because you cant run 50 ohm output to a 450 ohm impedeance...........

I guess I asked the wrong question. Why do you think you
are dealing with a 450 ohm impedance? It's impossible to
encounter a 450 ohm impedance on a Z0=450 ohm transmission
line with reflections and one doesn't often encounter an
antenna with a 450 ohm feedpoint impedance.

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Why do you think you need a 4:1 balun?
--
73, Cecil http://www.qsl.net/w5dxp

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4021. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 03:20:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <42f6d076$1_1@spool9-west.superfeed.net>
Source record: 72139

Bob Miller wrote:
> Did you keep the wig after you turned in the costume :-)

Believe it or not, Bob, I own that entire outfit
along with the karaoke machine. I recently performed
at the Madisonville Sidewalk Cattlemen's Association
Rodeo. Someone said I sing better than Elvis. I replied,
"I do now".
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4022. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 03:24:34 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <g2kdf1p58t4991n0i1rq7b3rf9lmuulvsd@4ax.com>
Source record: 72140

On Sun, 07 Aug 2005 22:20:02 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Bob Miller wrote:
>> Did you keep the wig after you turned in the costume :-)
>
>Believe it or not, Bob, I own that entire outfit
>along with the karaoke machine. I recently performed
>at the Madisonville Sidewalk Cattlemen's Association
>Rodeo. Someone said I sing better than Elvis. I replied,
>"I do now".

I assume you came to the rodeo on that maroon Harley?

bob
k5qwg

4023. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 09:53:18 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b2440$42f72b91$438df2d2$1828@ALLTEL.NET>
Source record: 72141

Sure you can, I do it every time I get on the air.

"S.Fritts" <w4sef@att.net> wrote in message
news:ashdf1tdmpgpsqqo2hen08ttnv8ru16l81@4ax.com...
>
>
>
> Because you cant run 50 ohm output to a 450 ohm impedeance..........
>
> thanks to all who answered
>
>
> Steve

4024. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 11:39:47 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f744e2_4@newsfeed.slurp.net>
Source record: 72142

"Cecil Moore" wrote:
> Reg Edwards wrote:
>> Do you have an equation for Volts = Function(number, frequency,
>> watts, length, diameter, angle, height, etc) ?
>
> Only a ballpark figure, Reg, which should be good enough.
> Since balanced radials don't radiate (much), it should
> be a piece of cake for you to come up with a piece of
> software that calculates voltage at the tips Vs number
> of radials. Let me know if you need any help. :-)

Reg,

The 1937 Brown, Lewis and Epstein IRE paper "Ground Systems as a Factor in Antenna Efficiency" include an analysis of the currents in radial ground systems, along with equations and graphs for it in various configurations. All you need to do to apply them to a system of raised radials is to modify these basic equations.

Of course, you will have to read the paper first to do that (wink, nudge). But then you might also see why knowledge of ground conductivity was unimportant to the conclusions of this paper, and refrain from saying so in the future.

RF

4025. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 15:31:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123515069.662581.227220@o13g2000cwo.googlegroups.com>
Source record: 72143

Bob Miller wrote:
> I assume you came to the rodeo on that maroon Harley?

They actually wanted me to ride my Harley but my
Vocopro Bravo II wouldn't fit. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4026. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 17:09:06 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <f94ff1pp95vmlhnk0s26vf38cfuo4g9buc@4ax.com>
Source record: 72144

On Mon, 08 Aug 2005 06:21:37 -0700, Dan Richardson <> wrote:

>
>I suggest you get a copy of TL Details
>http://www.qsl.net/ac6la/tldetails.html
>and check out just how much variation in impedance you balun will be
>seeing.
>
>73,
>Danny, K6MHE
>
>email: k6mhe<at>arrl<dot>net
>http://users.adelphia.net/~k6mhe/

I'm trying that program out, and under Results, it gives an SWR and
and SWR (50). What's the difference in those two?

Bob
k5qwg

4027. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 17:17:03 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dd8d7u$1fk$1@news.service.uci.edu>
Source record: 72146

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> The only thing which can cause energy to change direction is
>> reflection. I have answered that question every time you asked it.
>
>
> But that is a non-answer and you don't offer any idea as to the cause
> of the reflection.

I have also explained the cause of reflection to you many times. (Hint:
it's the change in media thing. See below for one example.)

> What causes 100% re-reflection of reflected waves
> in a matched system? You are still avoiding a valid answer.

I wrote you an email with a reference that I recomended you read.
It's the best explanation I've seen. I'll bet you haven't read it. I
don't know why you keep saying I avoid these things when my efforts to
explain it to you is my entire purpose for corresponding on the subject.

>> It means that for an electromagnetic wave to reverse direction, it
>> must encounter a change in the nature of the conducting medium.
>
>
> Assume it encounters a power reflection coefficient of 0.5 in a
> matched system. What causes the reflection of the other half of
> the reflected energy?

The thing that causes reflection is a change in media. Impedance, index
of refraction - something like that. See below.

>> Impedance discontinuities or changes in the index of refraction -
>> those things cause reflection.
>
>
> Yes, and wave cancellation in a transmission line only happens at
> an impedance discontinuity so your assertion has no point.

Then it must be that your question, which I answered, had no point.

>> An interference pattern created by waves is still just waves arranged
>> differently.
>
>
> On the contrary, wave cancellation at a match point is permanent.

The statement is less contrary than your disposition.

>> Waves don't cause other waves to change direction.
>
>
> Normally, that's true.

As if you would know. It's of course always true.

ac6xg

4028. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 19:27:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ffcggk8r1vqa1@corp.supernews.com>
Source record: 72145

Richard Fry wrote:
>
> Reg,
>
> The 1937 Brown, Lewis and Epstein IRE paper "Ground Systems as a Factor
> in Antenna Efficiency" include an analysis of the currents in radial
> ground systems, along with equations and graphs for it in various
> configurations. All you need to do to apply them to a system of raised
> radials is to modify these basic equations.
>
> Of course, you will have to read the paper first to do that (wink,
> nudge). But then you might also see why knowledge of ground conductivity
> was unimportant to the conclusions of this paper, and refrain from
> saying so in the future.
>
> RF

Unfortunately, the mathematical analysis in that paper was found to be in error. A search of the literature shows that quite a number of people worked on this problem well after publication of the BL&E paper. Some notable work was done by J.R. Wait and W.A. Pope of the Radiation Physics Laboratory, Defence Research Branch, in Canada. Two papers in particular give equations for the impedance of radial systems which appear to be valid -- "The Characteristics of a Vertical Antenna With a Radial Conductor Ground System", Appl. Sci. Res. B, Vol. 4, 1954; and "Input Resistance of L.F. Unipole Aerials With Radial Wire Earth Systems", Wireless Engineer, May, 1955. The equations involve multiple integral equations which can't be solved in closed form. In papers I've read which do involve equations which can be solved in closed form, even approximately, the results have deviated greatly from BL&E's measured results, making the accuracy of the method doubtful. This holds true for Reg's program, also, which apparently depends on some simplifying assumptions which aren't valid.

NEC-2, which is readily available in numerous forms, does about as good a calculation as any of elevated radial systems. Its major limitation, in my opinion, is the inability to deal with stratified ground. Of course, even if it could handle stratified ground, the user would somehow have to determine the properties and locations of the various strata. NEC-4 can, in addition to NEC-2's capabilities, include buried radials in its models. A few tests show reasonable agreement between it and BL&E's results. Incidentally, the equations in the first Wait and Pope paper I mentioned resemble those used in NEC-4, but I haven't studied them in enough detail to determine if they are indeed the same.

Elevated radial systems have been somewhat controversial, with some indications that modeled results don't imitate actual results very well, particularly at low frequencies. But there's very little really good measurement data available to make a valid judgement. Besides the possibility of stratified ground, some people have reported difficulty in maintaining equal currents in near-resonant elevated radial wires in real installations. This would have a substantial effect on a system, and would definitely cause deviation between modeled and measured results.

There's considerable work to be done in this field, but what really needs to be done is the making of good, well documented and carefully done measurements of elevated radial systems -- not more calculations based on invalid assumptions.

Roy Lewallen, W7EL

4029. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 20:11:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9peff19hhladd8lbhfogmsdu270ii9vbkk@4ax.com>
Source record: 72147

On Mon, 08 Aug 2005 12:27:09 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>There's considerable work to be done in this field, but what really
>needs to be done is the making of good, well documented and carefully
>done measurements of elevated radial systems -- not more calculations
>based on invalid assumptions.

Hi Roy,

That inspired me to reach for The ARRL Antenna Compendium, Volume 2.

Within it, the very first article, is
"Vertical Antennas: New Design and Construction Data"
By Doty, K8CFU; Frey, W3ESU; and Mills, K4HU

Their 10M vertical(s) above an elevated radial system of 64 wires
presents some interesting results. Albeit, they perhaps do not answer
the questions you've offered, but it does reveal the quality of work
possible.

73's
Richard Clark, KB7QHC

4030. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 20:15:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h5fff15e0ioli3rgseu2i4c6ju4i0e03qd@4ax.com>
Source record: 72148

On Mon, 8 Aug 2005 06:39:47 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>Of course, you will have to read the paper first to do that (wink, nudge).
>But then you might also see why knowledge of ground conductivity was
>unimportant to the conclusions of this paper, and refrain from saying so in
>the future.

Hi OM,

In fact those authors took great care to consider the condition of
ground conductivity and documented it for very good reasons. One of
the hallmarks of their work reveals that the phase shift between the
RF in the Wire, and that induced into the ground causes the lateral
flow of currents, increasing power dissipation. This is a major
reason why the density and spacing are important.

Elevating the radials creates an entirely different situation.

73's
Richard Clark, KB7QHC

4031. Antennas for Part 15 AM Stations (US)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 20:37:07 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f7c2d6_4@newsfeed.slurp.net>
Source record: 72149

Under the line below is my response to the post of 'LH' on another website. The subject started when someone else posted that legal Part 15 AM stations can have usable groundwave coverage out to 5-10 miles.

Maybe some at r.r.a.a. might be asked to get involved with one of these stations at some point, and find these comments useful. Or not.

RF

+ + +

\\ LH wrote:
>Next time a non-D AM tower falls over, let's clean up the mess,
>then install a Rangemaster or other high quality Part 15 transmitter
>on the ground at the center of the radial system and see how far
>it gets out, measure the field strength, etc. The official 3 meter
>antenna to be used.

An interesting concept.

A 3-meter vertical radiator is ~3.6 electrical degrees at 1 MHz. Using Figure 32 in George Brown's paper I referred to in an earlier post, the FCC efficiency of such a vertical with a ground system consisting of 113 radials of 0.27 wavelengths each is about 40 mV/m at 1 mile for 1 kW of radiated power.

Using that efficiency with the FCC's AM curves for 1 MHz, and assuming that the Part 15 AM tx could supply 80 mW to the radiator,* here are the parameters for a ground conductivity of 8 mS/m:

2.00 mV/m 0.1751 miles
0.500 mV/m 0.6695 miles
0.100 mV/m 2.9125 miles

NEC-2 calculates a base impedance of ~ 0.04 -j6500 ohms for this set of conditions (4mm constant OD radiator). No practical transmitter could deliver its rated power into such an impedance, but we have ignored that for these calculations. (The reactance term can be cancelled by using a loading coil, but the required coil would absorb a large amount of the available power due to I^2R loss).

Considering that Part 15 AM stations using intentional radiators neither have the ground system described above, nor can cause the RF current equivalent to 80 mW to flow in the radiating portion of a 3-meter antenna, it is clear that any Part 15 "coverage" claimed that approaches or exceeds what is shown in the calculations above must be related to the use of an

illegal antenna system, and/or illegally high tx power.

* AM Part 15 limits the tx to 100 mW of input power.
Output power will be less -- 80 mW was assumed.

RF //

4032. Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 21:20:51 UTC
From: Bob Bob <Bob3Bob3@cox.net>
Message-ID: <juuks2-g0t.ln1@p400bob.personal.cox.net>
Source record: 72151

Gidday

Apologies for being the newbie in this. I'll admit I am after a quick fix!

Am playing with modelling a 20M single quad loop. Yes I have built one before with a 75r section and it works fine.

The problem I have is how to represent the 1/4 piece of coax on 4NEC2. A piece of transmission line seems to have to be connected to a "wire" at each end and I get an error if I just have one hanging in free space where the feedpoint is.

I am aware I can do it at the Smith Chart output but I'd prefer to be able to graph actual Z/SWR.

Thoughts?

Cheers Bob VK2YQA/WA5

4033. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 21:48:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123537847_361@spool6-east.superfeed.net>
Source record: 72150

Jim Kelley wrote:

> Cecil Moore wrote:
> I wrote you an email with a reference that I recomended you read.
> It's the best explanation I've seen. I'll bet you haven't read it.

You simply cannot hurl nasty, obscene, ad hominem insults and still
expect someone to read your emails. You cannot say you weren't warned.

>>> Waves don't cause other waves to change direction.
>>
>> Normally, that's true.
>
> As if you would know. It's of course always true.

It is, of course, not always true as proven by the quote from the
following web page. What is it about WAVE INTERFERENCE causing energy
to be "redistributed in a new direction" that you don't understand?

It clearly contradicts what you are asserting. It plainly asserts that
TWO INTERFERING WAVES can cause the energy in the two waves to change
direction. And it can only happen at an impedance discontinuity
which should be enough to satisfy your requirements.

"... when two waves of equal amplitude and wavelength that are 180-
degrees out of phase with each other meet, they are not actually
annihilated. All of the photon energy present in these waves must
somehow be recovered or redistributed in a new direction, according to
the law of energy conservation ... Instead, upon meeting, the photons
are redistributed to regions that permit constructive interference, so
the effect should be considered as a redistribution of light waves and
photon energy rather than the spontaneous construction or destruction
of light."

We are just going to have to agree to disagree on this one. But I do
believe that my references outweigh yours by a long shot.
--
73, Cecil http://www.qsl.net/w5dxp

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4034. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-08 22:37:48 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dd8mrs$5lj$1@news.service.uci.edu>
Source record: 72152

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>> I wrote you an email with a reference that I recomended you read.
>> It's the best explanation I've seen. I'll bet you haven't read it.
>
>
> You simply cannot hurl nasty, obscene, ad hominem insults and still
> expect someone to read your emails. You cannot say you weren't warned.

For those reading along, here are the remarks Cecil is characterizing as nasty and obscene:

"I understand your point perfectly. You still fail to address a single point. You're a very odd cat, Cecil. The hostility is totally weird."

ac6xg

4035. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 00:06:24 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f7f380$0$22200$39cecf19@news.twtelecom.net>
Source record: 72153
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

I'm the troll? Grow up kid.

TokaMundo wrote:
> Feel better, now that you got that off your chest, you wussified
> little twit? You cared enough to read it, and you cared enough to
> troll it, asshole.

4036. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 00:10:53 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f7f48d$0$22200$39cecf19@news.twtelecom.net>
Source record: 72154
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

Not unless you are getting close to being old enough to die of old age.

And I have to apologize for not swearing, it just seems so childish to me. Kind of like the person doesn't have enough intelligence to do anything else.

TokaMundo wrote:
>
> You were in diapers, dipshit.

4037. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 00:23:57 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42f7f79d$0$32204$39cecf19@news.twtelecom.net>
Source record: 72155
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

My guess is you are about 15. Close?

TokaMundo wrote:
> You were in diapers, dipshit.

4038. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 01:20:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123550556_885@spool6-east.superfeed.net>
Source record: 72156

Jim Kelley wrote:
> For those reading along, here are the remarks Cecil is characterizing as
> nasty and obscene:

Please don't be ridiculous. No, the remarks I am characterizing
as nasty and obscene are commonly know as "mind f__king".
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4039. Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 01:52:58 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <x_TJe.1297$Aq.917@bignews1.bellsouth.net>
Source record: 72157
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Please visit this Link...
This is the future of our hobby...

http://www.msu.edu/~volzmich/commenthelp.htm

Step by Step instructions on how to leave comments with the FCC.

--

4040. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 02:01:06 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dd92p3$aq2$1@news.service.uci.edu>
Source record: 72158

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> For those reading along, here are the remarks Cecil is characterizing
>> as nasty and obscene:
>
>
> Please don't be ridiculous. No, the remarks I am characterizing
> as nasty and obscene are commonly know as "mind f__king".

That's obscene alright.

Maybe it was when I said that you're describing the match point as if it were a 100% reflective one-way mirror. A one way mirror is actually not a bad analogy. Problem is you keep insisting that it must be 100% reflective - which obviously can't work. I tried to explain that each reflection is only partial, but each wavefront subsequently experiences multiple reflections - each time reduced in amplitude by a factor of rho1*rho2 per round trip. And, that the total amplitude equals the sum of all previous undamped reflections, which happens to equal the 100% number. That's what is in the textbooks I referred to you. It's also what Walt explains in his 1/4 wave transformer diagrams.

If the truth is a vulgar obscenity to you, then I guess I might rightly be accused of "hurling" that at you.

ac6xg

4041. Re: Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 03:04:29 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <13VJe.194000$tt5.76254@edtnps90>
Source record: 72159

> The problem I have is how to represent the 1/4 piece of coax on 4NEC2. A
> piece of transmission line seems to have to be connected to a "wire" at
> each end and I get an error if I just have one hanging in free space where
> the feedpoint is.
>
> I am aware I can do it at the Smith Chart output but I'd prefer to be able
> to graph actual Z/SWR.
>
> Thoughts?
>
> Cheers Bob VK2YQA/WA5

Bob, I don't know much about quad loops, so not sure what you are doing. Is the 1/4 wave coax just to transform the single loop input impedance to a lower value? I think a loop has about 120 ohm input Z, so 1/4 wave 75 ohm coax transforms it to near 50 ohm.

The transmission lines in NEC are ideal, so you will not get any loss as with a real transmission line. You do have to have a piece of wire at each end. The loop end wire is the loop, and the feed point end wire must contain the NEC source.

Do I have the right idea, or am I completely out to lunch?

Regards,

Frank

4042. Re: Looking for Butternut HF9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 03:17:06 UTC
From: Gene Rodgers <carroll.rodgers@comcast.net>
Message-ID: <ZIadnSaAldKovWXfRVn-1A@comcast.com>
Source record: 72160
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Too late just sold one with 6mm kit - $150, was in excellent shape.

"Ron Goldstein--KA2IIA" <solidgoldZZZ@optonline.net> wrote in message
news:42f4e4dc.1800372@news.optonline.net...
> Hi all,
>
> I am looking for a used Butternut HF9V vertical. If you do, please
> reply to
> this message. Remove the "ZZZ" from my E-mail address.
>
>
> Thanks,
>
>
> RON KA2IIA
> ==
> Remove the ZZZ from my E-mail address to send me E-mail.

4043. Re: Open ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 04:17:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <tcbgf15e71q1usllcu16bef48g2uqb1c83@4ax.com>
Source record: 72161

On Mon, 08 Aug 2005 17:09:06 GMT, Bob Miller <NOSPAM@neosoft.com>
wrote:

>I'm trying that program out, and under Results, it gives an SWR and
>and SWR (50). What's the difference in those two?

Bob, you will note that Dan develops an approximation for the actual
characteristic impedance of transmission line rather than use the
nominal characteristic impedance.

The SWR figure is calculated for the estimated characteristic
impedance, and the SWR(50) is calculated based on a characteristic
impedance of 50+j0.

Owen
--

4044. Re: Looking for Butternut HF9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 04:30:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6f59f$42f831ab$438df2d2$4435@ALLTEL.NET>
Source record: 72162
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

And you posted this because?

"Gene Rodgers" <carroll.rodgers@comcast.net> wrote in message
news:ZIadnSaAldKovWXfRVn-1A@comcast.com...
> Too late just sold one with 6mm kit - $150, was in excellent shape.
>
> "Ron Goldstein--KA2IIA" <solidgoldZZZ@optonline.net> wrote in message
> news:42f4e4dc.1800372@news.optonline.net...
> > Hi all,
> >
> > I am looking for a used Butternut HF9V vertical. If you do, please
> > reply to
> > this message. Remove the "ZZZ" from my E-mail address.
> >
> >
> > Thanks,
> >
> >
> > RON KA2IIA
> > ==
> > Remove the ZZZ from my E-mail address to send me E-mail.
>
>

4045. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 04:47:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123563019_3679@spool6-east.superfeed.net>
Source record: 72163

Jim Kelley wrote:
> I tried to explain that each
> reflection is only partial, but each wavefront subsequently experiences
> multiple reflections - each time reduced in amplitude by a factor of
> rho1*rho2 per round trip. And, that the total amplitude equals the sum
> of all previous undamped reflections, which happens to equal the 100%
> number. That's what is in the textbooks I referred to you. It's also
> what Walt explains in his 1/4 wave transformer diagrams.

That is also what I have been saying and nothing I have said disagrees
with anything above. I have not introduced anything new. I have merely
tied a couple of loose ends together by bringing some well understood
concepts over from optics to RF engineering. Wave interference indeed
can cause a redistribution in the direction of energy flow. Wave
cancellation doesn't just happen one time and it's over. Wave
cancellation is a continuous steady-state process and continues
until the source is shut down. It appears to me that is what you may
be missing.

> If the truth is a vulgar obscenity to you, then I guess I might rightly
> be accused of "hurling" that at you.

There's a mild example of your mind-f__king ways, Jim. I knew it
would only be a matter of time until you pulled that crap again.
You don't seem to be able to help yourself. So have you stopped
beating your wife yet?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4046. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 13:03:53 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f8aa18_2@newsfeed.slurp.net>
Source record: 72164

"Richard Clark" wrote
>"Richard Fry" wrote:
>>But then you might also see why knowledge of ground conductivity was
>>unimportant to the conclusions of this paper, ...
> Hi OM,
> In fact those authors took great care to consider the condition of
> ground conductivity and documented it for very good reasons.

Nowhere in Brown, Lewis and Epstein's IRE paper titled "Ground Systems as a Factor in Antenna Efficiency" is there ANY documentation of the actual ground conductivity that was measured, or even calculated for the antenna site and/or the propagation path used. It was unimportant for the construct and relevancy of the tests and conclusions which the paper reported.

This is the paper I was referring to in my previous posts.

RF

4047. Re: Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 13:33:42 UTC
From: Bob Bob <Bob3Bob3@cox.net>
Message-ID: <ounms2-dd7.ln1@p400bob.personal.cox.net>
Source record: 72165

Hi Frank

Yes the usage of the 1/4 wave section is simple and well known. I have
been doing it for years. The loop Z varies somewhat depending on shape
and height over ground. I am modelling a triangle and it runs around 145r

When I create the "wire" in free space by istelf I get a warning;
Error: Wire 5, seg 91, Ex-src: Not allowed near open wire-end

Mind you it comes up with seemingly the correct result. If I change the
number of segments in that wire from 1 to 3 the error doesnt occur.

More feeling my way at this...

What I'd really like to do is setup a dual band single quad loop (ie one
loop inside the other) for (say) 20 and 40M with no ATU. ie direct coax
feed...

Cheers Bob

Frank wrote:
>
> Bob, I don't know much about quad loops, so not sure what you are doing. Is
> the 1/4 wave coax just to transform the single loop input impedance to a
> lower value? I think a loop has about 120 ohm input Z, so 1/4 wave 75 ohm
> coax transforms it to near 50 ohm.
>
> The transmission lines in NEC are ideal, so you will not get any loss as
> with a real transmission line. You do have to have a piece of wire at each
> end. The loop end wire is the loop, and the feed point end wire must
> contain the NEC source.
>
> Do I have the right idea, or am I completely out to lunch?
>
> Regards,
>
> Frank
>
>
>

4048. Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 13:41:27 UTC
From: Gary Smith <mygrps@aapt.net.au>
Message-ID: <ddah5p$b5t$1@news-01.bur.connect.com.au>
Source record: 72168

Hi, i would like to build a variable attenuator for 450-500MHz. It will be used for RDF assistance.
Could people please give me construction details of different designs or different ideas on the topic.

I woould love an electronic RDF unit but havn't found many kits here in Australia so an attenuator will be
a good start.

Thanks

Gary

4049. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 14:26:27 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <g8fhf1p1imlp88pjoq8a4nd057vn7l5pi8@4ax.com>
Source record: 72166

On Mon, 08 Aug 2005 12:27:09 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Unfortunately, the mathematical analysis in that paper was found to be
>in error. A search of the literature shows that quite a number of people
>worked on this problem well after publication of the BL&E paper. Some
>notable work was done by J.R. Wait and W.A. Pope of the Radiation
>Physics Laboratory, Defence Research Branch, in Canada. Two papers in
>particular give equations for the impedance of radial systems which
>appear to be valid -- "The Characteristics of a Vertical Antenna With a
>Radial Conductor Ground System", Appl. Sci. Res. B, Vol. 4, 1954; and
>"Input Resistance of L.F. Unipole Aerials With Radial Wire Earth
>Systems", Wireless Engineer, May, 1955. The equations involve multiple
>integral equations which can't be solved in closed form. In papers I've
>read which do involve equations which can be solved in closed form, even
>approximately, the results have deviated greatly from BL&E's measured
>results, making the accuracy of the method doubtful. This holds true for
>Reg's program, also, which apparently depends on some simplifying
>assumptions which aren't valid.
>
snip
>
>Roy Lewallen, W7EL

Roy, I don't have the Wait and Pope paper for review, but I'm
concerned over the validity of their equations that you say render
BL&E's measurements invalid. How can their measurements be invalid
when field-strength measurements of literally thousands of AM BC
antennas agree with BL&E's? Keep in mind that every BC station that
uses a directional array is required to prove the performance of the
array with field strength measurements that assure the measured values
agree with the calculated values.

It was only after verifying BL&E's measurements by comparing their
data with those obtained from many subsequent measurements of BC
antennas that the FCC used the BL&E data in standardizing the
requirements for radial systems for new BC stations.

Isn't it possible that Wait and Pope's equations relate to some other
aspects of BC antennas than those of BL&E? I simply cannot accept the
notion that BL&E's data is wrong.

Walt,W2DU

4050. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 14:49:27 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <Xn3Ke.29497$HV1.21153@fed1read07>
Source record: 72167
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

The future of Amateur Radio depends on us, the old timers, to attract, elmer, encourage, and train new folks in the amazing privileges we have. CW testing has nothing to do with that.

--
CL -- I doubt, therefore I might be !

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message news:x_TJe.1297$Aq.917@bignews1.bellsouth.net...
> Please visit this Link...
> This is the future of our hobby...
>
> http://www.msu.edu/~volzmich/commenthelp.htm
>
> Step by Step instructions on how to leave comments with the FCC.
>
> --
>
>
>

4051. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 15:29:37 UTC
From: Dave <dave@telnet.com>
Message-ID: <BZ3Ke.236057$_o.220929@attbi_s71>
Source record: 72169
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

I think if one knows he code is a true amateur radio operator. One never knows when the code will come in handy. Although, I must admit I am very lax on using it. I haven't used it for years, but I am trying to brush to on it. I find it fascinating.

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message news:Xn3Ke.29497$HV1.21153@fed1read07...
> The future of Amateur Radio depends on us, the old timers, to attract,
> elmer, encourage, and train new folks in the amazing privileges we have.
CW
> testing has nothing to do with that.
>
> --
> CL -- I doubt, therefore I might be !
>
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>
> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
> news:x_TJe.1297$Aq.917@bignews1.bellsouth.net...
> > Please visit this Link...
> > This is the future of our hobby...
> >
> > http://www.msu.edu/~volzmich/commenthelp.htm
> >
> > Step by Step instructions on how to leave comments with the FCC.
> >
> > --
> >
> >
> >
>
>

4052. Re: Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 16:06:38 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <iw4Ke.172418$9A2.41759@edtnps89>
Source record: 72170

Ok Bob, now I understand what you are doing. I am familiar with using a quarter wave stub for matching. What I did not understand is the type of error message you were getting.

I use a different version of NEC 2 (Nittany Scientifics' NEC-Win Pro). It does not return an error message when attempting to use a single segment wire, with a source, to feed a transmission line model. I don't think you need worry about the message, since NEC will return the correct solution. You can always experiment with the "TL" card by placing a known load at one end, and observing the input impedance to see that you get the expected value.

I have attempted modeling a double extended zepp, with a source at one end, and the results are completely wrong so guess the error message is required to cover such events. Constructing a physical transmission line model overcomes the double extended zepp problem.

Typical NEC code dealing with the "TL", as per L.B. Cebik, in his book "Basic Antenna Modeling, a Hands on Tutorial" is as follows":

```
.
.
GW 1 21 -3.418 0 15 3.418 0 15 0.000814
GW 2 1 -0.1 0 5 0.1 0 5 0.000814
.
.
TL 1 11 2 1 75 15 0 0 0 0
.
.
```

73,

Frank

"Bob Bob" <Bob3Bob3@cox.net> wrote in message
news:ounms2-dd7.ln1@p400bob.personal.cox.net...
> Hi Frank
>
> Yes the usage of the 1/4 wave section is simple and well known. I have
> been doing it for years. The loop Z varies somewhat depending on shape and
> height over ground. I am modelling a triangle and it runs around 145r
>
> When I create the "wire" in free space by istelf I get a warning;
> Error: Wire 5, seg 91, Ex-src: Not allowed near open wire-end
>
> Mind you it comes up with seemingly the correct result. If I change the

> number of segments in that wire from 1 to 3 the error doesnt occur.
>
> More feeling my way at this...
>
> What I'd really like to do is setup a dual band single quad loop (ie one
> loop inside the other) for (say) 20 and 40M with no ATU. ie direct coax
> feed...
>
> Cheers Bob
>
>
> Frank wrote:
>>
>> Bob, I don't know much about quad loops, so not sure what you are doing.
>> Is
>> the 1/4 wave coax just to transform the single loop input impedance to a
>> lower value? I think a loop has about 120 ohm input Z, so 1/4 wave 75
>> ohm
>> coax transforms it to near 50 ohm.
>>
>> The transmission lines in NEC are ideal, so you will not get any loss as
>> with a real transmission line. You do have to have a piece of wire at
>> each
>> end. The loop end wire is the loop, and the feed point end wire must
>> contain the NEC source.
>>
>> Do I have the right idea, or am I completely out to lunch?
>>
>> Regards,
>>
>> Frank
>>
>>

4053. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 16:33:33 UTC
From: Travis Jordan <no.one@no.net>
Message-ID: <xV4Ke.65188$_I2.50854@fe03.news.easynews.com>
Source record: 72171
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Dave wrote:
> I think if one knows he code is a true amateur radio operator.

I'll add to that.

True amateur radio operators can build spark gap receivers and
transmitters from scratch using materials they have in their junk boxes.

4054. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 16:42:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2hmhf1t826trs4c6g1odtitt2r9ofor22f@4ax.com>
Source record: 72172

On Tue, 9 Aug 2005 23:41:27 +1000, "Gary Smith" <mygrps@aapt.net.au>
wrote:

>Hi, i would like to build a variable attenuator for 450-500MHz. It will be
>used for RDF assistance.
>Could people please give me construction details of different designs or
>different ideas on the topic.

Hi Gary,

You don't need precision, so building your own is a good option. The
circuit would be a switched, cascaded pi-network of resistors also
known as a decade attenuator.

You need only three resistors and a DPDT switch for each section. The
traditional sections add 1, 2, 2, 5, 10, 20, 20, 50 dB of attenuation.
For RDF you can skip the first 3 or 4 sections.

73's
Richard Clark, KB7QHC

4055. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 16:51:36 UTC
From: Dave <noone@nowhere.com>
Message-ID: <IoGdnXFU2piAQmXfRVn-og@crocker.com>
Source record: 72173

is dick smith electronics still in business?? i bought a couple rdf kits
from them many years ago, very reasonable price even with overseas shipping
and they worked nicely. there is also one on my web site at:
http://www.k1ttt.net/technote/doppler.html that is derived from their much
more complex 4 antenna version.

"Gary Smith" <mygrps@aapt.net.au> wrote in message
news:ddah5p$b5t$1@news-01.bur.connect.com.au...
> Hi, i would like to build a variable attenuator for 450-500MHz. It will be
> used for RDF assistance.
> Could people please give me construction details of different designs or
> different ideas on the topic.
>
> I woould love an electronic RDF unit but havn't found many kits here in
> Australia so an attenuator will be
> a good start.
>
> Thanks
>
>
> Gary
>
>
>

4056. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 17:08:01 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddantl$45u$1@news.service.uci.edu>
Source record: 72174

Cecil Moore wrote:

> Wave interference indeed
> can cause a redistribution in the direction of energy flow.

Not correct. What you don't seem to grasp here is that's exactly the same as saying 'a standing wave pattern causes energy to be redistributed'. Wave interference is simply the visible manifestation of a redistribution of energy. It is a result. It is not the cause of the redistribution.

ac6xg

4057. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 17:16:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddaoe6$2ft$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72175

What you need is a standard Piston attenuator whose performance is
largely calculable. Forget about dinky wire-ended resistors whose
performance in attenuators is a matter of guesswork.

Reg.

==========

"Gary Smith" <mygrps@aapt.net.au> wrote in message
news:ddah5p$b5t$1@news-01.bur.connect.com.au...
> Hi, i would like to build a variable attenuator for 450-500MHz. It
will be
> used for RDF assistance.
> Could people please give me construction details of different
designs or
> different ideas on the topic.
>
> I woould love an electronic RDF unit but havn't found many kits here
in
> Australia so an attenuator will be
> a good start.
>
> Thanks
>
>
> Gary
>
>
>

4058. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 17:21:54 UTC
From: fmmck@aol.com
Message-ID: <fmmck-0908051321540001@ac955e05.ipt.aol.com>
Source record: 71976

In article <1123456735.674265.301380@g49g2000cwa.googlegroups.com>,
jgboyles@aol.com wrote:

> Yves Dussault wrote:
> > I'm thinking of getting a Buddipole antenna.
> > I would loke comments on that antenna.
> > Thanks.
> > VE2ATD
>
> The Buddipole is a short, loaded portable antenna. Works OK for
> camping, pedestrian mobile, field day, mobile and any number of other
> uses. I would not use it as my primary antenna at my home QTH.

Gary & JG & YD-

If the Buddipole is the one I'm thinking of, you can make out a lot
cheaper by buying or making a bracket that has capability of mounting two
mobile whips as a dipole.

I have one that came from the Lakeview Company in Anderson, South
Carolina. I have it mounted on a five foot section of TV mast supported by
a roof-mount tripod from Radio Shack. I've seen slightly different
brackets from other companies at hamfests.

I tried it with a pair of different mobile whips. One was a single-band
Ham Stick (Lakeview?) and the other a Hustler. On 40 Meters it didn't
work nearly as well as a full dipole, but not bad for an indoor loaded
dipole about five feet off the floor!

73, Fred, K4DII

4059. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 17:24:05 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1123608245.040544.87690@z14g2000cwz.googlegroups.com>
Source record: 71977

One of the problems, if you want to use the attenuator to get close to a strong transmitter, is that typical ham receivers aren't shielded all that well, and you'll find that the attenuator is unable to give you as much signal attenuation as you'd like. (Disconnect the antenna from the receiver entirely, and the signal's still strong!) A way around that is to build a mixer in a well shielded box, mixing the signal with some fairly low frequency to offset it from the transmitted frequency. You listen on the mixer output freq. For example, if you mix with 10MHz, you'd listen to 455MHz at 465 (or 445). Then you have a knob to control the efficiency of the mixer in some way, and you get an output that can be attenuated smoothly. We used to use such things here, and they seemed to work well for the small effort involved in putting them together. I don't think I still have a schematic around, though.

If you build a step attenuator, be aware that at 500MHz, it's tough to keep signals from leaking around your attenuator stages. Be sure to keep leads extremely short. Use switches with low inductance...tiny DPDT slide switches can be pretty good. And don't try to do more than about 20dB in any one stage. Unless you have an exceptional receiver, you'll probably find that you can't use more than about 80dB total attenuation effectively, if that much.

Another useful tool if you're looking for a nearby well-hidden transmitter is a field strength meter. It's possible to build one with logarithmic response, so you can see 60dB or more range easily on a meter scale. Some of the Analog Devices, or Linear Technology, or National Semiconductor dB-linear RF detectors should work well. You can detect inputs below a millivolt with them. Add a tuned circuit on the RF input to keep other signals out. If you build the FSM so it's well shielded and you can swap between say a quarter-wave whip and a tiny stub for antenna, you can cover quite a range of field strengths.

Too bad you're not closer...I'd give you my old doppler RDF. But you have some very good RDF teams in Australia, I know, and maybe some of them could help you out with ideas and construction help if you need it.

Cheers,
Tom

4060. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 17:51:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11fhr9jfk75bg1f@corp.supernews.com>
Source record: 71978

Rest easy, Walt. To my knowledge, no one has ever shown BL&E's *measurements* to be invalid, or the conclusions reached from those measurements. It's their mathematical treatment of what they expected to happen, in the first part of their paper (Part II: Theoretical Considerations), that wasn't correct. I don't believe I have a paper that details the errors they made, but it was regarded my later authors as being in error, prompting a great deal of more rigorous work. Later authors don't generally even reference that BL&E theoretical mathematical work. Nearly all reference their measurements, however, as they should.

Roy Lewallen, W7EL

Walter Maxwell wrote:
>
> Roy, I don't have the Wait and Pope paper for review, but I'm
> concerned over the validity of their equations that you say render
> BL&E's measurements invalid. How can their measurements be invalid
> when field-strength measurements of literally thousands of AM BC
> antennas agree with BL&E's? Keep in mind that every BC station that
> uses a directional array is required to prove the performance of the
> array with field strength measurements that assure the measured values
> agree with the calculated values.
>
> It was only after verifying BL&E's measurements by comparing their
> data with those obtained from many subsequent measurements of BC
> antennas that the FCC used the BL&E data in standardizing the
> requirements for radial systems for new BC stations.
>
> Isn't it possible that Wait and Pope's equations relate to some other
> aspects of BC antennas than those of BL&E? I simply cannot accept the
> notion that BL&E's data is wrong.
>
> Walt,W2DU

4061. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 17:53:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123610175_6143@spool6-east.superfeed.net>
Source record: 71979

Jim Kelley wrote:

> Cecil Moore wrote:
>> Wave interference indeed
>> can cause a redistribution in the direction of energy flow.
>
> Not correct.

There you go again, playing semantic games, and trying to force
your pet definition of "cause" on the rest of the world. You
have obviously tried to redefined cause to mean "first cause",
a concept that has so many holes in it that you can use it for
a sieve.

By saying the above, you are disagreeing with the following web page:
http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index
.html

> What you don't seem to grasp here is that's exactly the
> same as saying 'a standing wave pattern causes energy to be
> redistributed'.

The existence of standing wave indeed does cause energy to be
redistributed. Where the standing wave voltage is zero, the net
energy is redistributed into the H-field. Where the standing wave
current is zero, the net energy is redistributed into the E-field.
It is all because of the standing wave. If the standing wave didn't
exist, that wouldn't happen. Therefore, standing waves cause
energy to be redistributed. A causes B. B causes C. C causes D.
Of course, the standing waves are only one item in a cause and effect
chain. The standing waves are an effect caused by interference between
forward-traveling waves and rearward-traveling waves. The forward-traveling
wave is an effect caused by a source. The rearward-traveling wave is an
effect caused by a mismatched load. The source and the load are caused by
human beings. The load is caused by human choice. Humans beings are caused
by ... See where your "first cause" concept leads? i.e. nowhere!

Following your above logic, I assume you would say the Big Bang
is the cause of everything and nothing since then has been the
cause of anything.

> Wave interference is simply the visible manifestation
> of a redistribution of energy. It is a result. It is not the cause of
> the redistribution.

Wave cancellation is permanent and is first an effect and then a
cause in a long line of cause and effect events. I see now why

your argument cannot tolerate the concept of a before and after.

The two signals coming from two different directions incident upon
an impedance discontinuity cause reflections. Wave cancellation is
caused by permanent destructive interference between two of those
reflected waves. The Wave cancellation in turn causes the energy to
be redistributed. Let's parse the following so even you can understand it:

"All of the photon energy present in these waves must
somehow be recovered or redistributed in a new direction,
according to the law of energy conservation ..."

Wave cancellation causes an energy redistribution. This is obvious
to anyone except someone who believes the Big Bang was the only
cause ever. You remind me of the bully who beats up his wife and
then says, "She caused me give her that black eye."

Here's your logic once again. Lightning hits my ICOM and fries it.
Was lightning the cause? No. Was a low pressure depression the
cause? No. Was whatever caused the low pressure depression the
cause? No. There must have been something before that. Maybe the
proverbial butterfly flapping its wings in China? See how
silly your argument is?
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4062. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 18:14:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6nphf119npc1sflm2709rhhklh443nou0c@4ax.com>
Source record: 71980

On Tue, 9 Aug 2005 08:03:53 -0500, "Richard Fry" <rfry@adams.net>
wrote:
>Nowhere in Brown, Lewis and Epstein's IRE paper titled "Ground Systems as a
>Factor in Antenna Efficiency" is there ANY documentation of the actual
>ground conductivity that was measured, or even calculated for the antenna
>site and/or the propagation path used. It was unimportant for the construct
>and relevancy of the tests and conclusions which the paper reported.
>
>This is the paper I was referring to in my previous posts.

Hi OM,

Both Reg and you would do well to obtain and read a copy.

On page 757 is introduced the necessary discussion of:
Is = Iw + Ie
"The we will denote the total earth current flowing radially inward
... as Is, ... where Iw is the component flowing in the wires, and Ie
is the part which actually flows in the earth.

The discussion of earth conductivity (quite specifically named as
such) within the paper spans pages 757, 758, 759, 760, with numerous
citations and graphings against specific conductivity values applied
to related figures in page 761, 762, 763, and 764.

On page 758:
"The actual earth current and the current flowing in the radial wires
are given by..." introducing formula (8).
Followed on page 759 with:
"while the current actually flowing in the earth is...." introducing
formula (10).
"Thus from (8), (9), and (10), together with Fig. 4. we may obtain the
actual current in the earth...."

As for explicit conductivity:
"Fig. 5 shows the current in the wires for the following conditions
... 0.2X10^-4 mhos per cm cube"
"Fig. 6 shows the actual current in the earth for the same
conditions."

"shown for the following conditions..." and four specifications of
conductivity follow.

Now, specifically to a comment I offered as to the importance of
noting conductivity:
"When the earth is of good conductivity, the current leaves the wires
and enters the earth closer to the antenna than does when the earth is

a poor conductor."

There is also a formulation for Fig. 17 (page 766) that is introduced as "The current is flowing toward the antenna through a ring of earth of radius..." which computes the power lost to ground for a known conductivity (with examples abounding).

In this short span of 8 pages dedicated to earth conductivity there at least 12 graphs and charts all quite distinctly displaying the variation of measured results as a function of different specified ground conductivities antennas and ground system combinations.

The authors were quite aware of the ground beneath their feet and duly reported its contributions in the standard engineering fashion of displaying first principles.

73's
Richard Clark, KB7QHC

4063. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 18:35:33 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5mthf11iu876940rgq8uehb3k4p0n7fude@4ax.com>
Source record: 71981

On Tue, 9 Aug 2005 16:51:36 -0000, "Dave" <noone@nowhere.com> wrote:

>is dick smith electronics still in business?? i bought a couple rdf kits

Yes, they were purchased by a grocery chain and have pretty much
abandonded amateur radio products, focussing more on consumer
electronics with electronic components available in the larger stores
(for the moment).

They also own Tandy in Oz, so Tandy stocks are near identical to Dick
Smith (less the electronic components).

Owen
--

4064. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 18:51:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123613651_6207@spool6-east.superfeed.net>
Source record: 71982

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> Wave interference indeed
>> can cause a redistribution in the direction of energy flow.
>
> Not correct.

Note I said "can cause", not "will cause".

Jim, you caused me to hit the books on cause and effect and
the effect was a refresher course on what I already knew.

From "Introduction to Logic", by Copi: "The word 'cause' is
sometimes used in the sense of necessary condition and
sometimes in the sense of sufficient condition."

Is permanent wave cancellation a sufficient condition
for a redistribution of energy to happen. The answer is "yes"
according to my web page references. Therefore, permanent wave
cancellation *will* indeed cause a redistribution of energy.

Please note above that I said wave interference indeed *can*
cause a redistribution of energy. I chose "can" instead of
"will" because wave interference is not sufficient to cause
the redistribution of energy. Wave cancellation is a special
case of wave interference in which the waves *cease to exist*
in their original direction of travel. The conservation of
energy principle dictates that the energy contained in those
waves before they are canceled, must necessarily be redistributed
along a different path. Note: Any different path in a transmission
line is necessarily the opposite direction, i.e. a reflection.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4065. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 18:52:09 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <bkuhf19dgiufgqj9oomu2jlvrsjas9tvsu@4ax.com>
Source record: 71983

On Tue, 09 Aug 2005 12:53:40 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>> Wave interference indeed
>>> can cause a redistribution in the direction of energy flow.
>>
>> Not correct.
>
>There you go again, playing semantic games, and trying to force
>your pet definition of "cause" on the rest of the world. You
>have obviously tried to redefined cause to mean "first cause",
>a concept that has so many holes in it that you can use it for
>a sieve.
>
>By saying the above, you are disagreeing with the following web page:
>http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/inde
x.html
>
>> What you don't seem to grasp here is that's exactly the
>> same as saying 'a standing wave pattern causes energy to be
>> redistributed'.
>
>The existence of standing wave indeed does cause energy to be
>redistributed. Where the standing wave voltage is zero, the net
>energy is redistributed into the H-field. Where the standing wave
>current is zero, the net energy is redistributed into the E-field.
>It is all because of the standing wave. If the standing wave didn't
>exist, that wouldn't happen. Therefore, standing waves cause
>energy to be redistributed. A causes B. B causes C. C causes D.
>Of course, the standing waves are only one item in a cause and effect
>chain. The standing waves are an effect caused by interference between
>forward-traveling waves and rearward-traveling waves. The forward-traveling
>wave is an effect caused by a source. The rearward-traveling wave is an
>effect caused by a mismatched load. The source and the load are caused by
>human beings. The load is caused by human choice. Humans beings are caused
>by ... See where your "first cause" concept leads? i.e. nowhere!
Snip
>Here's your logic once again. Lightning hits my ICOM and fries it.
>Was lightning the cause? No. Was a low pressure depression the
>cause? No. Was whatever caused the low pressure depression the
>cause? No. There must have been something before that. Maybe the

>proverbial butterfly flapping its wings in China? See how
>silly your argument is?

Jim, try the following on for size:

Let us now determine why open or short circuits are developed by wave interference. From King,37 we know that voltage and current traveling along the line can be represented by individual generators placed at any point along the line. Those generators are called "point generators." For the purpose of analysis, a point generator is an impedance-less EMF that can represent or replace the voltage and current on the line equal to the voltage and current actually appearing at that point on the line, without disturbing the wave action on the line.
To simulate and analyze interference between two waves of equal magnitude and opposite phase traveling in the same direction, such as the two sets of reflected waves generated by the load mismatch and the stub mismatch, we can connect two point generators together in either of two different configurations. Each generator replaces the voltage and current of each individual wave at the point of interference, the match point. In the first configuration, the two generators are connected in phase. Because their voltages are equal and in phase, the differential voltage is zero, resulting in no current flow. This connection is equivalent to an open circuit between the generators. In the second configuration, the generators are connected with their terminals reversed. Their voltages are now in opposite phase at the interference point and the resulting voltage is the sum of the voltages delivered by each generator; i.e., twice the voltage of each generator. This connection results in a short circuit between the two generators.
Identical wave-interference phenomena establishing a short circuit also occur in free space in the same manner as in guided-wave propagation along transmission lines. For example, when the fields emanating from two radiators in an array of antennas are of equal magnitude and 180ï¿½ out of phase at a point in space, a virtual short circuit is established by destructive wave interference, resulting in a null in the radiation pattern at that point. Following Poynting's Theorem, the energy in the combined fields propagating is reversed in direction at that point; and with the constructive interference that follows, that energy adds to that in the fields propagating in the opposite direction, thus achieving gain in the that direction.

Walt, W2DU
.

4066. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 18:54:13 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <2suhf11q5amc66qqdji9s6q82epabmuhk6@4ax.com>
Source record: 71984

Thanks Roy, I'm resting easy now.

Walt

On Tue, 09 Aug 2005 10:51:42 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Rest easy, Walt. To my knowledge, no one has ever shown BL&E's
>*measurements* to be invalid, or the conclusions reached from those
>measurements. It's their mathematical treatment of what they expected to
>happen, in the first part of their paper (Part II: Theoretical
>Considerations), that wasn't correct. I don't believe I have a paper
>that details the errors they made, but it was regarded my later authors
>as being in error, prompting a great deal of more rigorous work. Later
>authors don't generally even reference that BL&E theoretical
>mathematical work. Nearly all reference their measurements, however, as
>they should.
>
>Roy Lewallen, W7EL

4067. Re: Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 19:02:15 UTC
From: Bob Bob <Bob3Bob3@cox.net>
Message-ID: <n6bns2-o38.ln1@p400bob.personal.cox.net>
Source record: 71985

Tnxs Frank!

Frank wrote:
> Ok Bob, now I understand what you are doing. I am familiar with using a
> quarter wave stub for matching. What I did not understand is the type of
> error message you were getting.
>

4068. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 19:16:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddavetkfe1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71986

"Richard Clark" wrote
> Both Reg and you would do well to obtain and read a copy.
>
==========

Until now I have not contributed to this discussion. Neither now and very little in the past. So please leave me out of it.

I have produced one small program (I am surprised at the attention drawn to it) which computes radiating efficiency of a short vertical antenna based on a novel analysis of ground loss, ie., shallow buried radial wires which behave as lossy transmission lines.

All I have to say is that the program gives the "right" answers. Disprove it if you can.

It is as accurate as the ground "constants" are known, that is about plus or minus 30 percent. The answers are forthcoming within milli-seconds. No need to go on a one month training course. And it's free. What more do you want?

To prove it wrong you have to create a set up similar to that pruduced by BL&E - only this time don't forget to measure ground coductivity and permittivity!

From what Roy says, BL&E were hardly better than bungling amateurs of their era. The only reason their report is considered to be 'The Bible' is because it was the only one ever produced and available at the time.

They laid down so many radials it didn't matter what ground conductivity was.

Reg.

4069. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 19:26:39 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <aLKdnZ2dnZ3jiRjYnZ2dnd2eZN-dnZ2dRVn-z52dnZ0@comcast.com>
Source record: 71987

"K7ITM" <k7itm@aol.com> wrote in message
news:1123608245.040544.87690@z14g2000cwz.googlegroups.com...
> One of the problems, if you want to use the attenuator to get close to
> a strong transmitter, is that typical ham receivers aren't shielded all
> that well, and you'll find that the attenuator is unable to give you as
> much signal attenuation as you'd like. (Disconnect the antenna from the
> receiver entirely, and the signal's still strong!) A way around that
> is to build a mixer in a well shielded box, mixing the signal with some
> fairly low frequency to offset it from the transmitted frequency. You
> listen on the mixer output freq. For example, if you mix with 10MHz,
> you'd listen to 455MHz at 465 (or 445). Then you have a knob to
> control the efficiency of the mixer in some way, and you get an output
> that can be attenuated smoothly. We used to use such things here, and
> they seemed to work well for the small effort involved in putting them
> together. I don't think I still have a schematic around, though.
>
> If you build a step attenuator, be aware that at 500MHz, it's tough to
> keep signals from leaking around your attenuator stages. Be sure to
> keep leads extremely short. Use switches with low inductance...tiny
> DPDT slide switches can be pretty good. And don't try to do more than
> about 20dB in any one stage. Unless you have an exceptional receiver,
> you'll probably find that you can't use more than about 80dB total
> attenuation effectively, if that much.
>

Generally, when people build these, they put a shield down the middle of
each switch. Note that one of the resistors of each section and the bypass
strap have to pass through holes in the shield.

Tam

> Another useful tool if you're looking for a nearby well-hidden
> transmitter is a field strength meter. It's possible to build one with
> logarithmic response, so you can see 60dB or more range easily on a
> meter scale. Some of the Analog Devices, or Linear Technology, or
> National Semiconductor dB-linear RF detectors should work well. You
> can detect inputs below a millivolt with them. Add a tuned circuit on
> the RF input to keep other signals out. If you build the FSM so it's
> well shielded and you can swap between say a quarter-wave whip and a
> tiny stub for antenna, you can cover quite a range of field strengths.
>
> Too bad you're not closer...I'd give you my old doppler RDF. But you
> have some very good RDF teams in Australia, I know, and maybe some of
> them could help you out with ideas and construction help if you need
> it.

>
> Cheers,
> Tom
>

4070. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:01:11 UTC
From: Helmut Wabnig <EmailAddress>
Message-ID: <pr2if19q5jejfnndjdri3flrfl4k3pjaci@4ax.com>
Source record: 71988
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

On Mon, 8 Aug 2005 21:52:58 -0400, "laborkei"
<laborkeiNOSPAM@hotmail.com> wrote:

>Please visit this Link...
>This is the future of our hobby...
>
>http://www.msu.edu/~volzmich/commenthelp.htm
>
>Step by Step instructions on how to leave comments with the FCC.

Can you do it for me and tell them,
it is high time to abandon Morse code, for amateur license tests.

If you apply as a singer in an opera,
would you like it when they test your ability to stutter?

w.
OE8UWW

4071. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:04:32 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddb28l$8ms$1@news.service.uci.edu>
Source record: 71989

Cecil Moore wrote:

> Please note above that I said wave interference indeed *can*
> cause a redistribution of energy. I chose "can" instead of
> "will" because wave interference is not sufficient to cause
> the redistribution of energy. Wave cancellation is a special
> case of wave interference in which the waves *cease to exist*
> in their original direction of travel. The conservation of
> energy principle dictates that the energy contained in those
> waves before they are canceled, must necessarily be redistributed
> along a different path. Note: Any different path in a transmission
> line is necessarily the opposite direction, i.e. a reflection.

All correct - neither proving your point or disputing mine.

The thing you really need to consider is: how much energy is actually
"in" a wave (whatever that means) that delivers no energy.

ac6xg

4072. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:10:57 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8ac11$42f90e0c$438df2d2$795@ALLTEL.NET>
Source record: 71991
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Hey! Dosn't your constitution require you to be a neutral?

What are you doing taking sides?

"Helmut Wabnig" <EmailAddress> wrote in message
news:pr2if19q5jejfnndjdri3flrfl4k3pjaci@4ax.com...
> On Mon, 8 Aug 2005 21:52:58 -0400, "laborkei"
> <laborkeiNOSPAM@hotmail.com> wrote:
>
> Can you do it for me and tell them,
> it is high time to abandon Morse code, for amateur license tests.
>
> If you apply as a singer in an opera,
> would you like it when they test your ability to stutter?
>
> w.
> OE8UWW
>

4073. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:13:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fe3if11lb3tssieij65602gmq0i0i1h2i8@4ax.com>
Source record: 71990

On Tue, 9 Aug 2005 19:16:45 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>They laid down so many radials it didn't matter what ground
>conductivity was.

Hi Reg,

As usual you both lost track of the intent of the study. The whole
point was to insure it doesn't matter.

Sorry to rustle your skirts, but this falls under the heading of:
"Stating the bleeding obvious"

73's
Richard Clark, KB7QHC

4074. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:15:18 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddb2sr$8vh$1@news.service.uci.edu>
Source record: 71992

Walter Maxwell wrote:

> Jim, try the following on for size:
>
> Let us now determine why open or short circuits are developed by
> wave interference. From King,37 we know that voltage and current
> traveling along the line can be represented by individual generators
> placed at any point along the line. Those generators are called "point
> generators." For the purpose of analysis, a point generator is an
> impedance-less EMF that can represent or replace the voltage and
> current on the line equal to the voltage and current actually
> appearing at that point on the line, without disturbing the wave
> action on the line.
> To simulate and analyze interference between two waves of equal
> magnitude and opposite phase traveling in the same direction, such as
> the two sets of reflected waves generated by the load mismatch and the
> stub mismatch, we can connect two point generators together in either
> of two different configurations. Each generator replaces the voltage
> and current of each individual wave at the point of interference, the
> match point. In the first configuration, the two generators are
> connected in phase. Because their voltages are equal and in phase, the
> differential voltage is zero, resulting in no current flow. This
> connection is equivalent to an open circuit between the generators. In
> the second configuration, the generators are connected with their
> terminals reversed. Their voltages are now in opposite phase at the
> interference point and the resulting voltage is the sum of the
> voltages delivered by each generator; i.e., twice the voltage of each
> generator. This connection results in a short circuit between the two
> generators.
> Identical wave-interference phenomena establishing a short
> circuit also occur in free space in the same manner as in guided-wave
> propagation along transmission lines. For example, when the fields
> emanating from two radiators in an array of antennas are of equal
> magnitude and 180ï¿½ out of phase at a point in space, a virtual short
> circuit is established by destructive wave interference, resulting in
> a null in the radiation pattern at that point. Following Poynting's
> Theorem, the energy in the combined fields propagating is reversed in
> direction at that point; and with the constructive interference that
> follows, that energy adds to that in the fields propagating in the
> opposite direction, thus achieving gain in the that direction.
>
> Walt, W2DU

Hi Walt,

I think that is all well and good, Walt - except for your statement regarding the Poynting theorem. I can find no support in the literature for a claim that interference changes the direction of the Poynting vector - or for that matter, is a cause for any other phenomenon to occur. I once asked you for a reference, but your books weren't handy at the time. Let me know if it turns up. I am very interested to take a look at it.

Thanks,

Jim Kelley

4075. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:32:22 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f91338_2@newsfeed.slurp.net>
Source record: 71993

"Richard Clark" wrote
"Richard Fry" > wrote:
>>Nowhere in Brown, Lewis and Epstein's IRE paper titled "Ground Systems as
>>a
>>Factor in Antenna Efficiency" is there ANY documentation of the actual
>>ground conductivity that was measured, or even calculated for the antenna
>>site and/or the propagation path used. It was unimportant for the
>>construct
>>and relevancy of the tests and conclusions which the paper reported.

> Hi OM,
> Both Reg and you would do well to obtain and read a copy....
> the discussion of earth conductivity (quite specifically named as
> such) within the paper spans pages 757, 758, 759, 760, with numerous
>citations and graphings against specific conductivity values applied
> to related figures in page 761, 762, 763, and 764. ... (etc)

I have the paper, and have read it carefully, many times. The paper gives equations and graphs for current in the radial wires for a perfectly conducting Earth, and for Earth conductivities of 20 x 10^-15 e.m.u. and 100 x 10^-15 e.m.u. Later, in the experimental data, they report measurements of the currents for various radial configurations during their measurement sequences. But as I wrote, nowhere do they specifically report the actual ground conductivity for the antenna site, or along the 0.3 mile propagation path of the test. If you can find that anywhere in that paper, I will promptly retract my statement, and apologize.

Figure 30 in the paper shows that the ground system comprised of 113 radials of 0.412 lambda each resulted in a measured field strength that was about 0.18 dB below the theoretical value for it from a 90 degree radiator against a zero-ohm connection to a perfect Earth. I expect most of us would be quite happy if our measured data agreed that closely with its theoretical value. In any case it does show that the actual value of the ground conductivities for the test site and path had a trivial bearing on the test results, e.g., it was unimportant.

In fact the efficiency of AM broadcast vertical radiators per the FCC definition always is based on a perfect ground plane, and two ohms or less of DC resistance in the transmitter connection to it (via the radial ground system). Only then is distant field strength determined, using the radiator efficiency value and applied RF power along with the appropriate FCC propagation curve for the frequency and Earth conductivity for the path.

RF

4076. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:37:38 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ph4if1dbvrnmm3acf2u5661td7n7nmagqr@4ax.com>
Source record: 71994

On Tue, 09 Aug 2005 13:15:18 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>
>> Identical wave-interference phenomena establishing a short
>> circuit also occur in free space in the same manner as in guided-wave
>> propagation along transmission lines. For example, when the fields
>> emanating from two radiators in an array of antennas are of equal
>> magnitude and 180ï¿½ out of phase at a point in space, a virtual short
>> circuit is established by destructive wave interference, resulting in
>> a null in the radiation pattern at that point. Following Poynting's
>> Theorem, the energy in the combined fields propagating is reversed in
>> direction at that point; and with the constructive interference that
>> follows, that energy adds to that in the fields propagating in the
>> opposite direction, thus achieving gain in the that direction.
>>
>> Walt, W2DU
>
>Hi Walt,
>
>I think that is all well and good, Walt - except for your statement
>regarding the Poynting theorem. I can find no support in the literature
>for a claim that interference changes the direction of the Poynting
>vector - or for that matter, is a cause for any other phenomenon to
>occur. I once asked you for a reference, but your books weren't handy
>at the time. Let me know if it turns up. I am very interested to take
>a look at it.
>
>Thanks,
>
>Jim Kelley

Well, Jim, did you really grasp the paragraph above? How do you
suppose that had it not been for wave interferencethe energy would
have continued on in a particular radial direction, but due to the
interference the result was a null in that direction and an increased
amount of energy in the opposite, or forward direction, achieving gain
in that direction? The energy certainly changed direction to achieve
this condition. And you don't need references to understand this
phenomenon either. There are some concepts that are understandable
intuitively.

Please Jim, don't tell us that the energy isn't changing direction in
the rearrangement of the power distribution in the antenna pattern
that is wholly caused by wave interference and nothing else.

Walt

4077. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 20:56:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vc5if1dc8qqkrie5edqmfu5invj3cv56eh@4ax.com>
Source record: 71995

On Tue, 09 Aug 2005 16:37:38 -0400, Walter Maxwell <walt@w2du.com>
wrote:

> How do you
>suppose that had it not been for wave interferencethe energy would
>have continued on in a particular radial direction,

Hi Walt,

What stopped it if not a physical barrier?

>but due to the
>interference the result was a null

A null is not the absence of energy, but is the combination of equal
and opposing forces. If you were the Ref at a title bout, and stepped
between two punches of equal magnitude; then you wouldn't move very
far, the motions would cancel, but most would doubt you'd be up again
before the "count."

Nulls are evidenced quite clearly in bridges of many designs. They
may balance between huge potentials (energy), but evidence absolutely
no current (or power from energy times current). If you unplugged the
equipment from a bridge, the absence of current would not be an
indication of a null. Nulls within the context of engineering
necessarily carries the implication of energy present.

>in that direction and an increased
>amount of energy in the opposite, or forward direction, achieving gain
>in that direction?

Linear systems do not exhibit "gain." The combination of forces are
due to the total field in comparison to the region of interest.

It is by similar simplifications that we have contributors here who
offer that the radials of elevated ground planes do not radiate
energy. Their contribution to producing a power at a remote load may
cancel such that no power is evident, but this does not negate the
radiation nor the energy present.

73's
Richard Clark, KB7QHC

4078. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 21:13:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p66if1tb7fgqnmn6rrsbd1m8c5qmdp0je6@4ax.com>
Source record: 71996

On Tue, 9 Aug 2005 15:32:22 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>But as I wrote, nowhere do they specifically report the actual
>ground conductivity for the antenna site, or along the 0.3 mile propagation
>path of the test. If you can find that anywhere in that paper, I will
>promptly retract my statement, and apologize.

Hi OM,

As stated previously:

"Fig. 6 shows the actual current in the earth for the same conditions"

I hope the word "actual" is not subject to recourse to the IEEE
dictionary for clarification.

The "same conditions" are explicitly specified with conductivity.

One has to trust that engineers did not ask the farmer's wife to make
this determination for them in her kitchen. The imputation of
distrust would seem to serve another agenda.

Figures 7, 8, 9, and 10 also are all quite explicit.

The paper offers enough data to render your objections as tedious as
my work disproving "total cancellation" - the difference being I did
the work instead of simply saying "'t'ain't so." ;-)

73's
Richard Clark, KB7QHC

4079. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 21:33:21 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11fi87bcuivlu39@corp.supernews.com>
Source record: 71997

Dear "Gary Smith" (no call sign):

Wow! I agree with Reg! Perhaps he has yet to start on evaluating this
evening's wine.

Waveguide-in-cutoff, with coupling at each end and means for moving at
least one end towards and away from the other end, will do. K7ITM's
comments are also important for success. 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ddaoe6$2ft$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> What you need is a standard Piston attenuator whose performance is
> largely calculable. Forget about dinky wire-ended resistors whose
> performance in attenuators is a matter of guesswork.
> ----
> Reg.
>
> ==================================
>
> "Gary Smith" <mygrps@aapt.net.au> wrote in message
> news:ddah5p$b5t$1@news-01.bur.connect.com.au...
> > Hi, i would like to build a variable attenuator for 450-500MHz. It
> will be
> > used for RDF assistance.
> > Could people please give me construction details of different
> designs or
> > different ideas on the topic.
> >
> > I woould love an electronic RDF unit but havn't found many kits here
> in
> > Australia so an attenuator will be
> > a good start.
> >
> > Thanks
> >
> >
> > Gary
> >
>

4080. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 21:47:42 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f924df_3@newsfeed.slurp.net>
Source record: 71998

"Richard Clark" wrote
"Richard Fry" wrote:
>>But as I wrote, nowhere do they specifically report the actual
>>ground conductivity for the antenna site, or along the 0.3 mile
>>propagation
>>path of the test. If you can find that anywhere in that paper, I will
>>promptly retract my statement, and apologize.
> As stated previously:
> "Fig. 6 shows the actual current in the earth for the same conditions"
> The "same conditions" are explicitly specified with conductivity. etc

---

Yes, BL&E reported on the currents in the radials and the total ground currents during the test (as I already stated), but that is not the issue. The issue is whether or not not they explicity reported the value of Earth conductivity for the test site and propagation path--and they did not. Nor was it important to the conclusions of the test.

RF

4081. What's a piston attenuator? (was Variable Attenuator)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 21:48:00 UTC
From: SignalFerret <signalferret@verizon.net>
Message-ID: <kw9Ke.6801$0d.2865@trnddc02>
Source record: 71999

Just curious, what is a piston attenuator? For the life of me I can't seem to picture it. I know how a slab of resistive material inserted in to a wave guide works as an attenuator, but how is it accomplished in a coax transmission line? If someone has a photo, or diagram of the inner workings that would be great!

Robert
N3LGC

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:ddaoe6$2ft$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> What you need is a standard Piston attenuator whose performance is
> largely calculable. Forget about dinky wire-ended resistors whose
> performance in attenuators is a matter of guesswork.
> ----
> Reg.

4082. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 22:07:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11fia8ujajgvjaf@corp.supernews.com>
Source record: 72000

Richard Clark wrote:

> Hi OM,
>
> As stated previously:
>
> "Fig. 6 shows the actual current in the earth for the same conditions"
>
> I hope the word "actual" is not subject to recourse to the IEEE
> dictionary for clarification.

I agree with Richard Fry. All the references to ground conductivity, including Figure 6, are in Part II, the (erroneous) theoretical treatment. As for the "actual", look back a page, to page 759, at the bottom, where they say, "Thus from [equations] (8), (9), and (10), together with Fig. 4 ["Calculated Values of Total Earth Current"], we may obtain the actual current in the earth and the current in the wires." So the "actual" current is calculated from three equations and a graph of calculated current. Whatever they might have meant by "actual", it doesn't mean that it was measured.

>
> The "same conditions" are explicitly specified with conductivity.
>
> One has to trust that engineers did not ask the farmer's wife to make
> this determination for them in her kitchen. The imputation of
> distrust would seem to serve another agenda.
>
> Figures 7, 8, 9, and 10 also are all quite explicit.

They are also part of the theoretical treatment and don't represent measured values. Measured values begin with Fig. 25.

> . . .

Brown, Lewis, and Epstein did a good and careful job of measurement. Please be careful not to confuse their not-so-good theoretical treatment with their measurement results.

Roy Lewallen, W7EL

4083. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 22:25:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11fibb6alm6m9c4@corp.supernews.com>
Source record: 72001

Reg Edwards wrote:
>
> Until now I have not contributed to this discussion. Neither now and
> very little in the past. So please leave me out of it.
>
> I have produced one small program (I am surprised at the attention
> drawn to it) which computes radiating efficiency of a short vertical
> antenna based on a novel analysis of ground loss, ie., shallow buried
> radial wires which behave as lossy transmission lines.
>
> All I have to say is that the program gives the "right" answers.
> Disprove it if you can.

Considering that Brown, Lewis, and Epstein's experimental work has held as being valid for about 70 years now, it can be used as a test for various attempts at calculating ground system losses. NEC-4 matches their results quite well; your program produces results which are dismally different. Anyone armed with both the BL&E paper and your program can see for himself.

> It is as accurate as the ground "constants" are known, that is about
> plus or minus 30 percent. The answers are forthcoming within
> milli-seconds. No need to go on a one month training course. And it's
> free. What more do you want?

It's sure a lot easier to create an easy-to-use free program if the results don't have to bear any resemblance to reality. But perhaps you're right -- maybe people who use free software shouldn't expect the author to be honest about the program's accuracy.

> To prove it wrong you have to create a set up similar to that pruduced
> by BL&E - only this time don't forget to measure ground coductivity
> and permittivity!

Your program fails badly with any reasonable ground conductivity and permittivity. NEC-4 does pretty well with reasonable assumptions for the ground quality of a field in New Jersey in the wintertime.

> From what Roy says, BL&E were hardly better than bungling amateurs of
> their era.

Once again, you've crossed the line from your normal pomposity and crankiness to an insult and lie.

The only reason their report is considered to be 'The
> Bible' is because it was the only one ever produced and available at
> the time.

Another untruth. It stands because their measurements took in quite a number of conditions, and have been replicated.

> They laid down so many radials it didn't matter what ground
> conductivity was.

Those people who have read the paper know this to be untrue, also. They made measurements with 2, 15, 30, 60, and 113 radials.

Isn't that kind of a record, Reg, three flatly untrue statements in a single posting? You should record the name of that wine and save it for those special occasions when you feel threatened by the possibility that some Yanks might have done something useful 70 years ago. Hope your favorite store has lots in stock. In vino veritas, indeed.

Roy Lewallen, W7EL

4084. Re: What's a piston attenuator? (was Variable Attenuator)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 22:38:15 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <jEqwsBjXBT+CFAn2@ifwtech.co.uk>
Source record: 72040

SignalFerret wrote:
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:ddaoe6$2ft$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>> What you need is a standard Piston attenuator whose performance is
>> largely calculable. Forget about dinky wire-ended resistors whose
>> performance in attenuators is a matter of guesswork.
>> ----
>> Reg.
>
>
>Just curious, what is a piston attenuator? For the life of me I can't seem
>to picture it. I know how a slab of resistive material inserted in to a
>wave guide works as an attenuator, but how is it accomplished in a coax
>transmission line? If someone has a photo, or diagram of the inner workings
>that would be great!
>
>Robert
>N3LGC
>
Resistive material is not involved. The piston attenuator works by
varying the length of an empty metal tube, down which the signal has to
propagate as an EM wave. The tube is a waveguide operating below its
cutoff frequency, so the attenuation depends on the length and can be
calculated from first principles.

Attenuators using small wire-ended resistors would certainly be good
enough for this particular application, where accurate attenuation
values are not required. The performance of such attenuators has often
been measured, so it's far from being guesswork. If they are well
constructed, with attention to short leads, layout and shielding, they
can be quite accurate up to about 400-500MHz. However, that still
leaves the problem of poorly shielded rigs, which allow RF to leak
straight in past the attenuator.

A simple way to de-sensitize a handheld rig for close-in RDF purposes is
to lower the whole rig (antenna and all) into a metal pipe, on the end
of a piece of string. The further you lower the rig inside the pipe, the
less sensitive it becomes. It may look crude, but this is Reg's piston
attenuator in action!

This system has no directional properties, but at short range you can
often "DF" on signal strength alone.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)

http://www.ifwtech.co.uk/g3sek

4085. Re: What's a piston attenuator? (was Variable Attenuator)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 22:46:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p2cif19op9klqo4vfu3hpljlqvpngm13t@4ax.com>
Source record: 72002

On Tue, 09 Aug 2005 21:48:00 GMT, "SignalFerret"
<signalferret@verizon.net> wrote:

>Just curious, what is a piston attenuator? For the life of me I can't seem
>to picture it. I know how a slab of resistive material inserted in to a
>wave guide works as an attenuator, but how is it accomplished in a coax
>transmission line? If someone has a photo, or diagram of the inner workings
>that would be great!

Hi Robert,

It is a "below wavelength cutoff attenuator." It is basically two coupling loops put in a conductive tube the size of a toilet paper roll. One loop is movable on the so-called "piston" (although the resemblance ends there, no compression is expected). At the other end of the "cylinder" is the other loop. As you draw away, or closer, the attenuation is linearly variable to quite a high degree.

Of course, all other provisos still apply.

There are far more step attenuators than these, however amateurs like doing simple things difficultly. If sealing the box of the stepped attenuator was difficult, I can imagine the fun of circular seals. Nothing precise nor accurate is required for RDF - but low leakage does win at the end of the day.

73's
Richard Clark, KB7QHC

4086. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 22:59:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123628532_6539@spool6-east.superfeed.net>
Source record: 72003

Jim Kelley wrote:
>
>
> Cecil Moore wrote:
>
>> Please note above that I said wave interference indeed *can*
>> cause a redistribution of energy. I chose "can" instead of
>> "will" because wave interference is not sufficient to cause
>> the redistribution of energy. Wave cancellation is a special
>> case of wave interference in which the waves *cease to exist*
>> in their original direction of travel. The conservation of
>> energy principle dictates that the energy contained in those
>> waves before they are canceled, must necessarily be redistributed
>> along a different path. Note: Any different path in a transmission
>> line is necessarily the opposite direction, i.e. a reflection.
>
> All correct - neither proving your point or disputing mine.

I keep telling you that our only technical disagreements are over
extremely minor points. You keep posting stuff as if we disagree
when we don't and it is mostly just a ruse. You keep trying to
forcefully shove your strawmen into my head so you can shoot them
down, but that is just another ruse.

It appears to me that you think wave cancellation is a one time event,
like shooting a deer. The deer dies and that's that. But wave cancellation
is not a one time event. Wave cancellation is a continuous steady-state
infinite series of infinitessimal events. Wave cancellation is not possible
without steady-state standing waves. If the forward power anywhere in the
system is greater than the source power, then wave cancellation and
constructive interference are continuously occuring during steady-state.

> The thing you really need to consider is: how much energy is actually
> "in" a wave (whatever that means) that delivers no energy.

"In" in this context means "associated with" (and two letters is
seven times as efficient as 14 letters). Energy is always associated
with any wave, else the wave would never exist. For you to talk
about canceled waves containing no energy is a contradiction. Dr.
Best talked about canceled waves that keep flowing toward the source,
canceling each other all the way, but containing zero energy. They
exist only in his mind.

All waves deliver energy somewhere even if it takes forever as in the
case of the detected background radiation. In a lossless transmission
line, all waves deliver energy to the load (and possibly to the source

after power to the source is removed). Rearward-traveling canceled waves deliver their energy components in the direction of the load to later become incident upon the load. Anything else would violate the conservation of energy principle. The path the canceled waves take can be deduced by observing ghosts on a TV screen.

There is no such thing in reality as a wave that delivers no energy. Waves cannot even exist without energy. Canceled waves have associated energy components before they were canceled. The Melles-Griot web page calls that energy the "lost" energy and says it is not lost at all. Those energy components must be redistributed in different directions after the waves are canceled. Redistribution of energy in a transmission line means changing direction, since there are only two directions.
--
73, Cecil http://www.qsl.net/w5dxp

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4087. Re: What's a piston attenuator? (was Variable Attenuator)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 23:03:41 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1123628621.887950.232400@o13g2000cwo.googlegroups.com>
Source record: 72004

A very simple form of a piston attenuator for the OP's application is nothing more than a metallic tube into which you can suspend the receiver on a string. Adjust how far you drop the receiver into the tube (held vertically) to adjust the attenuation. Seriously. You can wrap a cardboard tube about three or four inches diameter with aluminum foil to make the "meatllic tube." It's a trick that many locals here have used effectively in hunting hidden transmitters.

A more usual form is a tube with a couple of coils in it, with a means to adjust the separation of the coils. See the third paragraph of
http://www.measurement.gov.au/index.cfm?event=object.showContent&objectID=816180ED-BCD6-81AC-1B55FA54D509991D#attenuators
for an example.
http://ej.iop.org/links/q55/Y67w5gpiNzZ0e8q9qahFCg/jev17i12p1172.pdf is an article about correction of small errors in (precison) piston attenuators. This pdf has a cross-sectional diagram in it, but don't get bogged down in the details.

Cheers,
Tom

4088. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 23:16:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123629531_6593@spool6-east.superfeed.net>
Source record: 72005

Jim Kelley wrote:
> I can find no support in the literature
> for a claim that interference changes the direction of the Poynting
> vector - or for that matter, is a cause for any other phenomenon to
> occur.

The Melles-Groit web page certainly supports wave cancellation being the cause of the "lost" reflected energy joining the forward wave. The Molecular Expressions web page certainly supports that same energy redistribution resulting from wave cancellation.

And given the following example from "Fields & Waves ..." by Ramo & Whinnery, what do you think changes the direction of the Pz2- Poynting Vector such that it vectorally adds to the Pz1+ Poynting Vector resulting in the Pz2+ Poynting Vector?

100W XMTR---50 ohm line---+---291.4 ohm line---1698.5 ohm load
Pz1+ = 100W--> Pz2+ = 200W-->
<--Pz1- = 0W <--Pz2- = 100W

If you can answer that simple question to the satisfaction of everyone, the discussion will be over.
--
73, Cecil http://www.qsl.net/w5dxp

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4089. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 23:32:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123630485_6659@spool6-east.superfeed.net>
Source record: 72006

Richard Clark wrote:
> Linear systems do not exhibit "gain."

From the IEEE Dictionary: "gain - The ratio of radiation
intensity, in a given direction, to the radiation intensity
that would be obtained if the power accepted by the antenna
were radiated isotropically."

That is the gain that Walt is talking about. That is the
gain that EZNEC reports.
--
73, Cecil http://www.qsl.net/w5dxp

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4090. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-09 23:59:07 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddbg0gemq1@news.service.uci.edu>
Source record: 72007

Cecil Moore wrote:

> And given the following example from "Fields & Waves ..." by
> Ramo & Whinnery, what do you think changes the direction of
> the Pz2- Poynting Vector such that it vectorally adds to the
> Pz1+ Poynting Vector resulting in the Pz2+ Poynting Vector?
>
> 100W XMTR---50 ohm line---+---291.4 ohm line---1698.5 ohm load
> Pz1+ = 100W--> Pz2+ = 200W-->
> <--Pz1- = 0W <--Pz2- = 100W
>
> If you can answer that simple question to the satisfaction of
> everyone, the discussion will be over.

Any reflections (and Poynting vector reversals) would be caused by the presence of impedance discontinuities - not by anything else. In the absence of impedance discontinuities, the transmission line would appear to be infinitely long and would not produce reflections.

ac6xg

4091. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 00:11:41 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddbgo2$f1s$1@news.service.uci.edu>
Source record: 72008

Cecil Moore wrote:

> It appears to me that you think wave cancellation is a one time event,
> like shooting a deer.

That would only be a naive perception on your part. Perhaps it is part
of your misunderstanding?

> All waves deliver energy somewhere even if it takes forever as in the
> case of the detected background radiation. In a lossless transmission
> line, all waves deliver energy to the load (and possibly to the source
> after power to the source is removed).

So your claim is that energy is delivered by two waves that are equal in
amplitude and opposite in phase?

> There is no such thing in reality as a wave that delivers no energy.

See Born and Wolf for examples.

> Waves cannot even exist without energy.

Correction. Waves cannot be created without energy. Electromagnetic
fields can indeed exist without necessarily conveying energy from one
place to another.

ac6xg

4092. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 00:21:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vqcif11uk9ntaqv79sag2mslicviu9m0k0@4ax.com>
Source record: 72009

On Tue, 09 Aug 2005 15:07:21 -0700, Roy Lewallen <w7el@eznec.com>
wrote:
>Whatever they might have meant by "actual",
>it doesn't mean that it was measured.
...
>Brown, Lewis, and Epstein did a good and careful job of measurement.
>Please be careful not to confuse their not-so-good theoretical treatment
>with their measurement results.

If I compare this with

On Tue, 09 Aug 2005 15:25:37 -0700, Roy Lewallen <w7el@eznec.com>
wrote:
>Considering that Brown, Lewis, and Epstein's experimental work has held
>as being valid for about 70 years now, it can be used as a test for
>various attempts at calculating ground system losses. NEC-4 matches
>their results quite well; your program produces results which are
>dismally different. Anyone armed with both the BL&E paper and your
>program can see for himself.
...
>Your program fails badly with any reasonable ground conductivity and
>permittivity. NEC-4 does pretty well with reasonable assumptions for the
>ground quality of a field in New Jersey in the wintertime.

leads to amusing circularity which I will set aside.

One might well suppose that through fine parsing, "actual" is not, and
is code for "might be." All reasonably argued, but reason has been
replaced with the rhetoric of argument fighting for air.

The authors express that with their formulas (8), (9) and (10) that
results would be "accurate" which I presume parses here to "best
guess." I also note that what falls within the "theoretical"
discussion is couched with the variables set in the "measurement"
discussion. The paper, as would be expected, was written iteratively
and results were drawn back into the theory.

The theoretical discussion of radial counts does not proceed from a
natural 15, 30, 60, 113 progression - this is plainly ad hoc
determination. Nor does the theoretical discussion of antenna height
proceed naturally through 22, 44, 66, 88, and 99 degrees - again
arrived at by ad hoc methods. All such "theoretical" considerations
are the happenstance of what was available in the field. It is
overwhelmingly obvious that Figures 4 through 14 are derived from the
3MHz tests employing antenna sections of 20', 20', 20', 20', and 10'
which fall right on the curve at the 1.098 degrees per foot of section

used. The text clearly states this: "The antenna heights given here were chosen to conform to later experimental heights." This admission precedes the introduction of ground conductivity, and yet after all of this ad hoc conscription from the field flows the presumption that the ground conductivity is derived. To put it bluntly, the data and system variables inhabit the theoretical discussion like a glove.

Like a political promise, the embraced vague genesis of ground conductivity has been heralded for every purpose but what the authors put it to.

73's
Richard Clark, KB7QHC

4093. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 00:40:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <atiif1lsqusvmo36gfd7peqpn3p117ld48@4ax.com>
Source record: 72010

On Tue, 09 Aug 2005 17:11:41 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>> There is no such thing in reality as a wave that delivers no energy.
>See Born and Wolf for examples.

Hi Jim,

This is intriguing for a wave (I presume you were adhering to the
singular). For those who lack these references, do you have any
concrete examples?

73's
Richard Clark, KB7QHC

4094. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 00:52:05 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1123635124.995537.53900@g43g2000cwa.googlegroups.com>
Source record: 72011

I've as often seen the shields between attenuator sections, instead of in the middle of a section. I can assure you, there is plenty of coupling across the switch itself where you can't place a shield, and the coupling is both inductive and capacitive. Maybe use two separate SPDT switches with a shield between them and mechanically ganged?

It's instructive to take apart a good microwave relay to see how they manage high isolation and constant impedance, but check the price of such relays before you destroy one to just have a look at it. (e.g., Digikey 255-1579) With such relays, SMT resistors and careful board layout, you can make a very decent step attenuator up through UHF at least.

Cheers,
Tom

4095. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 00:54:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddbj8b$13c$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72012

Whatever little BL&E may have contributed to the theoretical aspects,
it has always been disregarded by broadcasting engineers who always
did what they did last time - and laid 120 radials regardless of
economics.

Reg.

4096. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:03:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123635956_7123@spool6-east.superfeed.net>
Source record: 72013

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> And given the following example from "Fields & Waves ..." by
>> Ramo & Whinnery, what do you think changes the direction of
>> the Pz2- Poynting Vector such that it vectorally adds to the
>> Pz1+ Poynting Vector resulting in the Pz2+ Poynting Vector?
>>
>> 100W XMTR---50 ohm line---+---291.4 ohm line---1698.5 ohm load
>> Pz1+ = 100W--> Pz2+ = 200W-->
>> <--Pz1- = 0W <--Pz2- = 100W
>>
>> If you can answer that simple question to the satisfaction of
>> everyone, the discussion will be over.
>
> Any reflections (and Poynting vector reversals) would be caused by the
> presence of impedance discontinuities - not by anything else.

The impedance discontinuity is certainly in the cause and effect *chain*
as is the Poynting vector reversal. But simply asserting that the
impedance discontinuity causes the Poynting vector reversal is
a sophmoric begging of the question and leaves out some important
details. A causes B. B causes C. C causes D. You are certainly logically
correct in saying that A causes D, but your statement leaves out some
important intermediate details, namely B and C. (see below)

For instance, the impedance discontinuity causes nothing unless the
source energy exists and is taken into account as a cause. The
question is what are the necessary and sufficient conditions for an
impedance discontinuity to result in a complete reversal of the
(Pz2-) Poynting vector? Since a source is necessary, the source can
be considered as a cause. (The creator of our species can even be
considered as a necessary cause as can the Big Bang.)

Looking at it from a scientific standpoint, the impedance discontinuity
can only directly reverse half the magnitude of the Poynting Vector because
the physical power reflection coefficient is 0.5. So how does the other half
of the magnitude of the Poynting Vector get reversed? It's all been covered
by the Melles-Griot web page and the Molecular Expressions FSU web page.

In the presence of EM source energy, the impedance discontinuity causes
reflections. One of those reflections reverses half the magnitude of the
(Pz2-) Pointing Vector. That magnitude is (Pz2-)(rho^2).

Two of those reflections engage in wave cancellation. One is (Pz1+)(rho^2).
The other is (Pz2-)(1-rho^2), the other half of the (Pz2-) Poynting Vector.

These two reflections have equal magnitudes and opposite phases and therefore cancel. Their energy components reverse direction and head back toward the load as explained on the Melles-Groit and Molecular Expressions web pages.

And that's how the (Pz2-) Poynting Vector gets reversed. It's a two-step process, each step involving half of Pz2- in the above example.

> In the
> absence of impedance discontinuities, the transmission line would appear
> to be infinitely long and would not produce reflections.

That's true. The impedance discontinuity causes the reflections that engage in wave cancellation. In steps, it goes like this.

A. Impedance discontinuity driven by a source of EM energy

B. Reflections (implied mismatch)

C. Wave Cancellation (permanent destructive interference)

D. Energy direction and momentum reversal (constructive interference)

A causes B. B causes C. C causes D. This is in any freshman logic book. You are certainly logically correct in saying that A causes D, but your statement leaves out some important intermediate details. Those intermediate details are what this discussion is all about.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4097. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:04:57 UTC
From: dplatt@radagast.org
Message-ID: <11fiklprhvko8c7@corp.supernews.com>
Source record: 72014

In article <1123635124.995537.53900@g43g2000cwa.googlegroups.com>,
K7ITM <k7itm@aol.com> wrote:

>It's instructive to take apart a good microwave relay to see how they
>manage high isolation and constant impedance, but check the price of
>such relays before you destroy one to just have a look at it. (e.g.,
>Digikey 255-1579)

#CHOKE#

> With such relays, SMT resistors and careful board
>layout, you can make a very decent step attenuator up through UHF at
>least.

"... and at the price you charge for drinks, I can see why!"

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4098. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:28:06 UTC
From: Jeff Maass <jmaass@columbus.rr.com>
Message-ID: <GKcKe.58015$zY4.33933@tornado.ohiordc.rr.com>
Source record: 72015

"Gary Smith" <mygrps@aapt.net.au> wrote in message
news:ddah5p$b5t$1@news-01.bur.connect.com.au...
> Hi, i would like to build a variable attenuator for 450-500MHz. It will be
> used for RDF assistance.
> Could people please give me construction details of different designs or
> different ideas on the topic.
>
> I woould love an electronic RDF unit but havn't found many kits here in
> Australia so an attenuator will be
> a good start.
>
> Thanks
>
>
> Gary

Gary:

Building is an option, but you can also find some nice commercial units
on eBay which may have simply failed a calibration check. There are
several brands of attenuators out there retired from shops and labs
regularly.

I purchased a few HP 355D VHF attenuators, which are 0 - 120 dB step
attenuators made for 50-ohms from 0 to 1000MHz with a rotary switch.
A couple were just out of calibration (not a problem for my application),
and the cheaper one had some problems with individual steps that could be
repairable. I think I've paid $40 to $90 each for these last year.

The cheapest I found were Kay Electronics 0 - 100 dB attenuators with
nine sections switched by toggle switches. A couple on eBay are about to
sell for less than $20 as I type this!

Jeff

4099. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:29:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gflif159s3vcla6fougcikm4hudc4rmv0a@4ax.com>
Source record: 72016

On Wed, 10 Aug 2005 00:54:35 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>and laid 120 radials regardless of economics.

Hi Reg,

For a million dollar station investment, I don't think the price for
shares in Anaconda have brought any significant attention to anyone.

Perhaps you are thinking of the relative price in 1906 when it cost 4
times as much against 5% of what we consume now. Well, maybe only 30
years ago when it cost more than 3 times as much as now. Or perhaps
only 10 years ago when it cost twice as much as now.

Odd, it seems the price of copper and the value of the Pound have been
tracking each other over that same period. Your complaint would be
better founded on us planting sterling radials.

73's
Richard Clark, KB7QHC

4100. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:41:08 UTC
From: pltrgyst <pltrgyst@spamlessxhost.org>
Message-ID: <3omif1hk7ac3f2ktl4hmd2df14iaam7h87@4ax.com>
Source record: 72017
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.amateur.antenna

On Tue, 9 Aug 2005 16:12:59 -0400, "J. Mc Laughlin" <jcm@power-net.net> wrote:

>To the many without call signs:
> Please remove antenna group from your activities.
> Mac N8TT

Do you mean rec.radio.amateur.antenna?

If so, why do you make this request?

-- Larry

4101. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:43:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11fimttd7qe40ff@corp.supernews.com>
Source record: 72018

Richard Clark wrote:
> On Tue, 09 Aug 2005 15:07:21 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>Whatever they might have meant by "actual",
>>it doesn't mean that it was measured.
>
> ...
>
>>Brown, Lewis, and Epstein did a good and careful job of measurement.
>>Please be careful not to confuse their not-so-good theoretical treatment
>>with their measurement results.
>
>
> If I compare this with
>
> On Tue, 09 Aug 2005 15:25:37 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>Considering that Brown, Lewis, and Epstein's experimental work has held
>>as being valid for about 70 years now, it can be used as a test for
>>various attempts at calculating ground system losses. NEC-4 matches
>>their results quite well; your program produces results which are
>>dismally different. Anyone armed with both the BL&E paper and your
>>program can see for himself.
>
> ...
>
>>Your program fails badly with any reasonable ground conductivity and
>>permittivity. NEC-4 does pretty well with reasonable assumptions for the
>>ground quality of a field in New Jersey in the wintertime.
>
>
> leads to amusing circularity which I will set aside.

Sorry, as so often happens I missed your point entirely. If you're interested in having me understand what "circularity" you mean, you'll have to be more blunt and pedestrian so I'm able to understand it.

>
> One might well suppose that through fine parsing, "actual" is not, and
> is code for "might be." All reasonably argued, but reason has been
> replaced with the rhetoric of argument fighting for air.

Again, I haven't a clue what you're talking about. Arguing semantics, I suppose, in which I'm afraid I have no interest.

> The authors express that with their formulas (8), (9) and (10) that
> results would be "accurate" which I presume parses here to "best
> guess." I also note that what falls within the "theoretical"
> discussion is couched with the variables set in the "measurement"
> discussion. The paper, as would be expected, was written iteratively
> and results were drawn back into the theory.

I'm missing this one, too. If you're saying that those three graphs are of measured data, I can present what I believe is a good argument against that premise. But I can't tell if that's what you're saying or not.

> The theoretical discussion of radial counts does not proceed from a
> natural 15, 30, 60, 113 progression - this is plainly ad hoc
> determination. Nor does the theoretical discussion of antenna height
> proceed naturally through 22, 44, 66, 88, and 99 degrees - again
> arrived at by ad hoc methods. All such "theoretical" considerations
> are the happenstance of what was available in the field.

It wouldn't surprise me a bit if the theoretical work was written or modified after the measurements were made, which I believe is what you're saying. That doesn't alter the fact that the graphs of Part II are from calculated rather than measured results.

> It is
> overwhelmingly obvious that Figures 4 through 14 are derived from the
> 3MHz tests employing antenna sections of 20', 20', 20', 20', and 10'
> which fall right on the curve at the 1.098 degrees per foot of section
> used.

I'm not sure what you mean by "derived from", but they sure aren't graphs of measured data. For starters, some of those graphs are for 1 MHz, while according to the paper all measurements were made at 3. For another thing, I'm sure they didn't have the ability to change the ground conductivity; some of the graphs are for different ground conductivities than others. Finally, compare Figures 7 and 8 with Figure 42. The latter is from measured results, as explained on p. 781. It's quite different from the theoretical results for Figures 7 and 8. Incidentally, the theoretical analysis, including Figures 7 and 8, seems to assume infinite radial length, which is another difference between the theoretical and measured conditions (besides ground conductivity and, in some cases, frequency).

> The text clearly states this: "The antenna heights given here
> were chosen to conform to later experimental heights."

That's a very reasonable thing to do, when presenting both theoretical and measured results. I believe you're drawing conclusions from it which are well beyond its straightforward intent. (Perhaps this is due to your English literature background? It certainly was one of the activities overwhelmingly emphasized and encouraged in all English lit courses I ever took.)

This admission
> precedes the introduction of ground conductivity, and yet after all of
> this ad hoc conscription from the field flows the presumption that the
> ground conductivity is derived.

?

To put it bluntly, the data and
> system variables inhabit the theoretical discussion like a glove.

Even that isn't blunt enough for me. Sorry. I did badly in English.

> Like a political promise, the embraced vague genesis of ground
> conductivity has been heralded for every purpose but what the authors
> put it to.

If you say so. Whatever you said.

Roy Lewallen, W7EL

4102. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:46:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123638519_7501@spool6-east.superfeed.net>
Source record: 72019

Jim Kelley wrote:
> So your claim is that energy is delivered by two waves that are equal in
> amplitude and opposite in phase?

Naturally, zero energy is delivered in the direction of the complete
wave cancellation. The energy in the two canceled waves is delivered
in the opposite direction from their power-flow vectors. Anything else
would violate the conservation of energy principle.

It's not really my claim. That is what is claimed by the Melles-Groit
and Molecular Expressions web pages. That is what is claimed by Hecht,
in "Optics". That is what is claimed by Walter Maxwell in "Reflections".
Walt calls it a "virtual short". I had forgotten that he had described
it so well until I re-read it. Walt's QST articles in the 70's were where
I encountered these principles for the first time.

Maxwell, Walter, Reflections II, ï¿½ 2001 Worldradio Books

Page 4-3, "The destructive wave interference between these two complementary
waves ... causes a complete cancellation of energy flow in the direction toward
the generator. Conversely, the constructive wave interference produces an energy
maximum in the direction toward the load, ..."

(I had forgotten about that being in "Reflections". "Optics" was only
a refresher of the "Reflections" material.)

Page 23-9, "Consequently, all corresponding voltage and current phasors are 180
deg out of phase at the matching point. ... With equal magnitudes and opposite
phase at the same point (point A, the matching point), the sum of the two
(reflected) waves is zero."

>> Waves cannot even exist without energy.
>
> Correction. Waves cannot be created without energy. Electromagnetic
> fields can indeed exist without necessarily conveying energy from one
> place to another.

Correction. DC electromagnetic fields can exist without conveying energy
but the context is RF EM waves. EM wave-fields cannot exist without energy.
They can only exist at the speed of light, i.e. with ExM joules/sec
passing a point. The use of your tricky-dicky definition for "convey"
doesn't change those facts of physics.
--
73, Cecil http://www.qsl.net/w5dxp

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4103. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 01:57:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123639215_7515@spool6-east.superfeed.net>
Source record: 72020

Richard Clark wrote:

> Jim Kelley <jwkelley@nospam.edu> wrote:
>
>>>There is no such thing in reality as a wave that delivers no energy.
>>
>>See Born and Wolf for examples.
>
> This is intriguing for a wave (I presume you were adhering to the
> singular). For those who lack these references, do you have any
> concrete examples?

Beware when Jim uses the words, "power", "deliver", "convey",
"transfer", etc. They don't mean to him what you, I, Webster,
and the IEEE Dictionary say they mean. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4104. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:01:44 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddbn6ehsr1@news.service.uci.edu>
Source record: 72022

Cecil Moore wrote:
> The impedance discontinuity is certainly in the cause and effect *chain*
> as is the Poynting vector reversal. But simply asserting that the
> impedance discontinuity causes the Poynting vector reversal is
> a sophmoric begging of the question and leaves out some important
> details. A causes B. B causes C. C causes D. You are certainly logically
> correct in saying that A causes D, but your statement leaves out some
> important intermediate details, namely B and C. (see below)
>
> For instance, the impedance discontinuity causes nothing unless the
> source energy exists and is taken into account as a cause. The
> question is what are the necessary and sufficient conditions for an
> impedance discontinuity to result in a complete reversal of the
> (Pz2-) Poynting vector? Since a source is necessary, the source can
> be considered as a cause. (The creator of our species can even be
> considered as a necessary cause as can the Big Bang.)
>
> Looking at it from a scientific standpoint, the impedance discontinuity
> can only directly reverse half the magnitude of the Poynting Vector because
> the physical power reflection coefficient is 0.5. So how does the other
> half
> of the magnitude of the Poynting Vector get reversed? It's all been covered
> by the Melles-Griot web page and the Molecular Expressions FSU web page.
>
> In the presence of EM source energy, the impedance discontinuity causes
> reflections. One of those reflections reverses half the magnitude of the
> (Pz2-) Pointing Vector. That magnitude is (Pz2-)(rho^2).
>
> Two of those reflections engage in wave cancellation. One is (Pz1+)(rho^2).
> The other is (Pz2-)(1-rho^2), the other half of the (Pz2-) Poynting Vector.
> These two reflections have equal magnitudes and opposite phases and
> therefore
> cancel. Their energy components reverse direction and head back toward
> the load
> as explained on the Melles-Groit and Molecular Expressions web pages.
>
> And that's how the (Pz2-) Poynting Vector gets reversed. It's a two-step
> process, each step involving half of Pz2- in the above example.

And that folks, is the sound of one hand waving. :-)

>> In the absence of impedance discontinuities, the transmission line
>> would appear to be infinitely long and would not produce reflections.
>
>

> That's true. The impedance discontinuity causes the reflections that engage
> in wave cancellation. In steps, it goes like this.
>
> A. Impedance discontinuity driven by a source of EM energy
>
> B. Reflections (implied mismatch)
>
> C. Wave Cancellation (permanent destructive interference)
>
> D. Energy direction and momentum reversal (constructive interference)
>
> A causes B. B causes C. C causes D. This is in any freshman logic book.
> You are certainly logically correct in saying that A causes D, but
> your statement leaves out some important intermediate details. Those
> intermediate details are what this discussion is all about.

Except that D is not caused by, and cannot be caused by C. Only
reflection can cause reflection. The claim that momentum reverses
direction without encountering a physical reflector is a violation of
conservation of momentum.

ac6xg

4105. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:03:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r8nif1hra4ab9pun1mfdksghpf2jpgbfc8@4ax.com>
Source record: 72021

On Tue, 09 Aug 2005 18:43:19 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>> Like a political promise, the embraced vague genesis of ground
>> conductivity has been heralded for every purpose but what the authors
>> put it to.
>
>If you say so. Whatever you said.

Hi Roy,

It must have taken great effort of will to come to that conclusion.
Your achievement is noted as has all the groaning along the way.

73's
Richard Clark, KB7QHC

4106. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:06:32 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddbnfehtr1@news.service.uci.edu>
Source record: 72023

Cecil Moore wrote:

>>> Waves cannot even exist without energy.
>>
>>
>> Correction. Waves cannot be created without energy. Electromagnetic
>> fields can indeed exist without necessarily conveying energy from one
>> place to another.
>
>
> Correction. DC electromagnetic fields can exist without conveying energy
> but the context is RF EM waves.

Tell us more about DC electromagnetic fields, Mr. Science! :-)

> EM wave-fields cannot exist without energy.

Like I said, they cannot be created without energy. They can however
exist without conveying energy from one place to another.

ac6xg

4107. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:14:48 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <fooif11qqr6jsbkrdicl81qsupt7co8ui2@4ax.com>
Source record: 72024

On Tue, 09 Aug 2005 13:56:40 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:
>Hi Walt,
>
>What stopped it if not a physical barrier?

Richard, there is no physical barrier in an antenna array that changes
the shape of the radiated pattern. The barrier is caused only by
destructive wave interference.

>>but due to the
>>interference the result was a null
>
>A null is not the absence of energy, but is the combination of equal
>and opposing forces. If you were the Ref at a title bout, and stepped
>between two punches of equal magnitude; then you wouldn't move very
>far, the motions would cancel, but most would doubt you'd be up again
>before the "count."

In a title bout two punches of equal magniude are coming from opposite
directions. The energies in the two punches is dissipated in the
noggins of the morons who got into the bout;. The resulting null is in
reducing the already worped brains to zero.

>Nulls are evidenced quite clearly in bridges of many designs. They
>may balance between huge potentials (energy), but evidence absolutely
>no current (or power from energy times current). If you unplugged the
>equipment from a bridge, the absence of current would not be an
>indication of a null. Nulls within the context of engineering
>necessarily carries the implication of energy present.

We're not talking about nulls in bridges, we're talking about energy
controlled in desired directions, reduced in some directions, with the
energy lost in one direction adding to that in another; but you know
this.
>>in that direction and an increased
>>amount of energy in the opposite, or forward direction, achieving gain
>>in that direction?
>
>Linear systems do not exhibit "gain." The combination of forces are
>due to the total field in comparison to the region of interest.

Well, Richard, there is no non-linearity in the formation of antenna
radiation patterns. Are you saying there is no 'gain' when energy is
taken from one direction and pushed into another? With respect to
radiation patterns, 'gain' is relative, and not consideredas an

increase in power. But you know that too.

>It is by similar simplifications that we have contributors here who
>offer that the radials of elevated ground planes do not radiate
>energy. Their contribution to producing a power at a remote load may
>cancel such that no power is evident, but this does not negate the
>radiation nor the energy present.
>
>73's
>Richard Clark, KB7QHC

My comments are totally unrelated to elevated ground planes. I'm only trying to prove to Jim that wave interference DOES cause energy to shift direction without any aid of a physical entity. The only cause of the change in direction of energy radiated from an array of dipoles is wave interference, the interference between the waves emanting from the different dipoles.

Walt, W2DU

4108. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:36:51 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddbp89imd1@news.service.uci.edu>
Source record: 72025

Richard Clark wrote:

> On Tue, 09 Aug 2005 17:11:41 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>>>There is no such thing in reality as a wave that delivers no energy.
>>
>>See Born and Wolf for examples.
>
>
> Hi Jim,
>
> This is intriguing for a wave (I presume you were adhering to the
> singular). For those who lack these references, do you have any
> concrete examples?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

You may recall this came up before. The example I noted was in the instance of total internal reflection. Page 47, "Principles of Optics" Born and Wolf. When the angle of incidence with respect to the normal exceeds the critical angle "no light enters the second medium. All the incident light is reflected back into the first medium and we speak of total reflection. Nevertheless the electromagnetic field in the second medium does not disappear, only there is no longer a flow of energy across the boundary." They footnote that an elegant experimental demonstration is described by W. Culshaw and D. S. Jones Proc. Phys. Soc. B 1954.

It's also arguable whether any energy is transferred from a source to a lossless, open circuited, 1/2 wave transmission line after the transient period. Though there's no uncertainty about the presence of electromagnetic waves on such a line in the steady state.

73, Jim AC6XG

4109. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:41:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m5oif1l29oqg46t0naojkefpd9ise2j1en@4ax.com>
Source record: 72026

On Tue, 09 Aug 2005 18:43:19 -0700, Roy Lewallen <w7el@eznec.com>
wrote:
>Sorry, as so often happens I missed your point entirely. If you're
>interested in having me understand what "circularity" you mean, you'll
>have to be more blunt and pedestrian so I'm able to understand it.

Hi Roy,

You consistently demur expertise in English, and you are equally
troubled in Blunt, but the plea for help cannot go unanswered.

Let's see, we have a premise that the ground conductivity was
concocted from formula for the BL&E paper. If we proceed along the
lines this is true, then we immediately are faced with the conundrum:
>>>ground quality of a field in New Jersey in the wintertime.

How was this determination made? When was this determination made?
What was the determination made? Oh well, all such quantitative
discussion is missing so the statement appears to have as much basis
as a guess, but we are faced with the complaint holding Reggie to a
higher standard:
>>>Your program fails badly with any reasonable ground conductivity and
>>>permittivity.
compared to what determination? Where? of What? by Whom?

This appears to be a war of wills between the best guessing software.

Can we presume the answers lie with:
>>>Brown, Lewis, and Epstein did a good and careful job of measurement.
which, by the leading hypothesis contains no measure of conductivity?

So the objection to Reggie's software not conforming to results
offered by NEC-4 is proven by:
>>>NEC-4 does pretty well with reasonable assumptions for the
>>>ground quality of a field in New Jersey in the wintertime.
a strained appeal through BL&E,
>> NEC-4 matches their results quite well
which, by the leading hypothesis contains no measure of conductivity.
Which from FCC charts would suggest it to be uniformly dismal.

I've seen no discussion of actual quantifiable results against these
claims offered, so there is every chance that they are pinned together
by the evident circularity:

1. There has been no measurement of ground conductivity by BL&E
2. Reggies model for ground conductivity counters NEC-4
3. NEC-4's model for ground conductivity conforms to BL&E

4. There has been no measurement of ground conductivity by BL&E

I would like to see:
>>>Your program fails badly with any reasonable ground conductivity and permittivity.
supported by something other than appeals to dead white engineers -
Reggie has a patent on that method already.

73's
Richard Clark, KB7QHC

4110. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 02:47:49 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ddbpsriun1@news.service.uci.edu>
Source record: 72027

Walter Maxwell wrote:

> My comments are totally unrelated to elevated ground planes. I'm only
> trying to prove to Jim that wave interference DOES cause energy to
> shift direction without any aid of a physical entity. The only cause
> of the change in direction of energy radiated from an array of dipoles
> is wave interference, the interference between the waves emanting from
> the different dipoles.
>
> Walt, W2DU

The radiation pattern of an antenna is the result of the superposition of fields either radiated or reflected from REAL surfaces. Energy from the radiating and reflecting elements travels only in directions where the resulting superposed fields are not zero. The resulting interference pattern is simply the plot in 3 dimensional space of where energy is being directed.

73, Jim AC6XG

4111. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:21:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123644238_1131@spool6-east.superfeed.net>
Source record: 72028

Jim Kelley wrote:
> Except that D is not caused by, and cannot be caused by C. Only
> reflection can cause reflection. The claim that momentum reverses
> direction without encountering a physical reflector is a violation of
> conservation of momentum.

You missed the point, Jim. The wave indeed does encounter a
physical reflector and indeed cannot happen without the physical
impedance discontinuity. It meets all of your requirements.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4112. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:22:55 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11fismp8gtevd96@corp.supernews.com>
Source record: 72029
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.amateur.antenna

Dear "Larry" (no call sign):
The topic of the cross posted messages has nothing to do with antennas.
...but you knew that already.
Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"pltrgyst" <pltrgyst@spamlessxhost.org> wrote in message
news:3omif1hk7ac3f2ktl4hmd2df14iaam7h87@4ax.com...
> On Tue, 9 Aug 2005 16:12:59 -0400, "J. Mc Laughlin" <jcm@power-net.net>
wrote:
>
> >To the many without call signs:
> > Please remove antenna group from your activities.
> > Mac N8TT
>
> Do you mean rec.radio.amateur.antenna?
>
> If so, why do you make this request?
>
> -- Larry
>

4113. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:27:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123644592_1353@spool6-east.superfeed.net>
Source record: 72030

Jim Kelley wrote:
> Like I said, they cannot be created without energy. They can however
> exist without conveying energy from one place to another.

Please give us your tricky-dicky definition of "convey", Jim.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4114. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:33:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123644948_1487@spool6-east.superfeed.net>
Source record: 72031

Jim Kelley wrote:
> It's also arguable whether any energy is transferred from a source to a
> lossless, open circuited, 1/2 wave transmission line after the transient
> period.

Use a signal generator with a circulator load as the source. Cause a
noise glitch on the source signal. When will you see the glitch
across the circulator resistor? One cycle later. Reckon where that
glitch went during that one cycle? Man, that's a tough question. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4115. Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:47:57 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1123645677.650573.146470@o13g2000cwo.googlegroups.com>
Source record: 72034

email me at thecowboyace@yahoo.com about a dipole setup

4116. Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:48:03 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1123645683.241094.296530@g47g2000cwa.googlegroups.com>
Source record: 72032

email me at thecowboyace@yahoo.com about a dipole setup

4117. Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:48:03 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1123645683.274401.274040@f14g2000cwb.googlegroups.com>
Source record: 72033

email me at thecowboyace@yahoo.com about a dipole setup

4118. Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 03:48:45 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1123645725.112383.263010@g47g2000cwa.googlegroups.com>
Source record: 72035

email me at thecowboyace@yahoo.com about a dipole setup

4119. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 04:38:29 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1123648709.955939.74060@g14g2000cwa.googlegroups.com>
Source record: 72036
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

J. Mc Laughlin wrote:
> Dear "Larry" (no call sign):
> The topic of the cross posted messages has nothing to do with antennas.
> ...but you knew that already.
> Mac N8TT

But it certainly does
>

4120. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 04:46:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r40jf19lt98avfimubuabc66dqlh93rhkv@4ax.com>
Source record: 72037

On Tue, 09 Aug 2005 22:14:48 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>We're not talking about nulls in bridges, we're talking about energy
>controlled in desired directions, reduced in some directions, with the
>energy lost in one direction adding to that in another; but you know
>this.

Hi Walt,

What is being discussed is energy. Energy is wholly transparent to
application. The laws for its conservation don't care if you are
shooting marbles or colliding stars. Physics eventually devolves to
very few units of measure and the books balance on both sides of the
event.

>>>in that direction and an increased
>>>amount of energy in the opposite, or forward direction, achieving gain
>>>in that direction?
>>
>>Linear systems do not exhibit "gain." The combination of forces are
>>due to the total field in comparison to the region of interest.
>
>Well, Richard, there is no non-linearity in the formation of antenna
>radiation patterns. Are you saying there is no 'gain' when energy is
>taken from one direction and pushed into another? With respect to
>radiation patterns, 'gain' is relative, and not consideredas an
>increase in power. But you know that too.

And we both know no energy is created or lost without an atom being
ripped apart. The appeal to antenna "gain" is simply the choice of
where your attention is focused. Energy is neither lost nor created,
nor increased, nor decreased, the concomitant power that results of a
load being exposed to several sources of energy has a resultant. That
resultant expressed in the gain charts presumes there is a continuum
of loads throughout the circle/sphere of the lobes being described.

>>It is by similar simplifications that we have contributors here who
>>offer that the radials of elevated ground planes do not radiate
>>energy. Their contribution to producing a power at a remote load may
>>cancel such that no power is evident, but this does not negate the
>>radiation nor the energy present.
>>
>>73's
>>Richard Clark, KB7QHC
>

>My comments are totally unrelated to elevated ground planes. I'm only
>trying to prove to Jim that wave interference DOES cause energy to
>shift direction without any aid of a physical entity. The only cause
>of the change in direction of energy radiated from an array of dipoles
>is wave interference, the interference between the waves emanting from
>the different dipoles.

Elevated ground planes, if they do not fit into the discussion, reveal that discussion cannot support their characteristics. This is expressly a failure of that discussion.

Elevated ground planes radiate from the entire structure. What they radiate is energy. The net sum of those energies, at a distance, combined into a load, reveal that the contribution of the radials nullifies in horizontal polarity, and because the relative height (thickness) of the radials is so small in proportion to the main vertical element, make very little contribution to the vertical polarity. Yet and all, every radial element is blasting away in proportion to its current and radiation resistance. The radials are pouring energy into the ï¿½ther with every effort as the main vertical element. Reduce this to the barest minimum of two radials and the results are identical, however, lop off to one radial element, and the energy balance upsets the apple cart and a horizontal component, formerly offset by equal opposing energies, appears. That last radial element had always been radiating energy, it is still radiating energy.

Optics has been maligned through very poor examples here, but if two beams of light intersect we have wave interference ONLY if a load is present at that intersection. A load is a necessarily physical correlative. Otherwise, these energies have absolutely no interaction, barring a non-linear medium.

It then follows that waves do not mix freely in and of themselves and hence they are not causative agents. This has been illustrated by The Extreme Failure of Poor Concepts in Discussing Thin Layer Reflections.

73's
Richard Clark, KB7QHC

4121. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 05:41:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7q1jf1pjlakcqcdejtaspojl6285maf50v@4ax.com>
Source record: 72038

On Tue, 09 Aug 2005 19:36:51 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>>>>There is no such thing in reality as a wave that delivers no energy.
>You may recall this came up before. The example I noted was in the
>instance of total internal reflection. Page 47, "Principles of Optics"
>Born and Wolf. When the angle of incidence with respect to the normal
>exceeds the critical angle "no light enters the second medium.

Hi Jim,

OK, and in relation to:

>It's also arguable whether any energy is transferred from a source to a
>lossless, open circuited, 1/2 wave transmission line after the transient
>period.

But:

>Though there's no uncertainty about the presence of
>electromagnetic waves on such a line in the steady state.

is becoming strained language where so many struggle with English. Is
this to imply there's uncertainty about the presence of light that is
captured by total internal reflection? At the last census of total
cancellation, if it didn't meet a certain percentage it became
invisible. Something like an undocumented worker....

73's
Richard Clark, KB7QHC

4122. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 05:45:55 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <0vgKe.4339$Kp.1997@bignews6.bellsouth.net>
Source record: 72039
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Well crap if that is all it's good for then lets abandon all the high tech' poo and
go back to the old Semaphore Flag Signaling System. No electrons needed.
LOL or perhaps smoke signals from here to yon.

Welcome to the 21st century.

"Travis Jordan" <no.one@no.net> wrote in message
news:xV4Ke.65188$_I2.50854@fe03.news.easynews.com...
> Dave wrote:
>> I think if one knows he code is a true amateur radio operator.
>
> I'll add to that.
>
> True amateur radio operators can build spark gap receivers and
> transmitters from scratch using materials they have in their junk boxes.
>
>

4123. Re: What's a piston attenuator? (was Variable Attenuator)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 06:14:16 UTC
From: dplatt@radagast.org
Message-ID: <11fj6po1mkc97ac@corp.supernews.com>
Source record: 72041

In article <jEqwsBjXBT+CFAn2@ifwtech.co.uk>,
Ian White G/GM3SEK <g3sek@ifwtech.co.uk> wrote:

>A simple way to de-sensitize a handheld rig for close-in RDF purposes is
>to lower the whole rig (antenna and all) into a metal pipe, on the end
>of a piece of string. The further you lower the rig inside the pipe, the
>less sensitive it becomes. It may look crude, but this is Reg's piston
>attenuator in action!

Yup. Pringles cans are often used for this. I made a nice
heavier-duty version by recycling the lower half of a water-filter
cartridge - light aluminum, easily hacksawed to the desired length.

>This system has no directional properties, but at short range you can
>often "DF" on signal strength alone.

You can arrange some amount of crude directionality by holding the
attenuator-tube-with-HT-in-it in front of your torso, right next to
your chest, and then spinning around in place. This "body fade"
technique can give you a reasonably directional null when you're
facing away from the signal source. If the null isn't sharp enough,
lower the HT further into the tube to increase the attenuation, and
try again.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4124. Re: Variable Attenuator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 06:33:15 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <NGFbcGCr+Z+CFAjZ@ifwtech.co.uk>
Source record: 72042

K7ITM wrote:
>I've as often seen the shields between attenuator sections, instead of
>in the middle of a section. I can assure you, there is plenty of
>coupling across the switch itself where you can't place a shield, and
>the coupling is both inductive and capacitive. Maybe use two separate
>SPDT switches with a shield between them and mechanically ganged?
>
The attenuator that G4PMK published in 'The VHF/UHF DX Book' was based on earlier ARRL publications. It used common low-cost slide switches, and 1% 0.25W metal film resistors mounted directly on the switch tags with the shortest possible lead lengths. There were screens between the switches.

The following is a selection of results (which I didn't have time to type out last night). The 'Theory' column is the attenuation expected from using available resistor values, and the '1MHz' column shows the actual DC/LF result. Then read along each line to see how the attenuation changes with increasing frequency.

Best viewed with a fixed pitch font...

Nominal Theory 1MHz 30MHz 145MHz 432MHz
dB
1 0.98 0.98 0.97 1.00 1.27
3 3.02 2.88 2.81 2.92 3.45
10 10.08 10.06 10.10 10.09 10.56
20 19.9 20.0 20.0 19.9 19.7

That's really pretty good; in fact some of the apparent error may be due to the network analyser that was used for the measurements.

It seems that the main effect is a small *rise* in attenuation with frequency, probably caused by the increasing inductive reactance of the resistors. There doesn't seem to be any problem with internal coupling for these particular switches.

Your mileage will definitely vary. This is partly because of the switch construction, though garden-variety slide switches are all pretty much the same. Another source of variation is that metal-film resistors of the same value coming from different manufacturers may have significantly different values of series inductance. However, very small 1% metal-film resistors are the best wire-ended components you can get for this application. (My article in RadCom a few months ago has more information. Don't even think of using carbon composition!)

>It's instructive to take apart a good microwave relay to see how they
>manage high isolation and constant impedance, but check the price of
>such relays before you destroy one to just have a look at it. (e.g.,
>Digikey 255-1579) With such relays, SMT resistors and careful board
>layout, you can make a very decent step attenuator up through UHF at
>least.

You certainly can. Part of the solution seems to be to use a physically separate SPDT switch at each end of the attenuator, rather than DPDT type where the switches may be too close together. Some commercial step attenuators use individual switch contacts operated by insulating push-rods, and a long rotating cam-shaft selects the combinations required.

Yet another option is to use complete individual attenuators, shielded from one another inside a rotating 'turret' block.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4125. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 06:39:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddc7ei$2fj$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72043

> Reggie has a patent on that method already.
>
> 73's
> Richard Clark, KB7QHC

==========

Yes! It doesn't take much to get Roy to lose his temper and resort to
a frustrated attempt at character assassination.

Well, sadly, that's the end of the Bible. Between you, after 68
years, you experts have finally shredded it. ;o(

Reg, G4FGQ

4126. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 09:26:22 UTC
From: kashe@sonic.net
Message-ID: <60ijf11t1cr9ijbn7llcp5efk51ff2oks3@4ax.com>
Source record: 72045
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 06 Aug 2005 09:54:12 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sat, 30 Jul 2005 04:27:32 GMT, kashe@sonic.net Gave us:
>
>>
>>
>> If you're keeping up with the conversation, top posting is far
>>more efficinet then reading the bottom posters who expect ou to scroll
>>through a hunderd liones oof crap so you can find out their
>>contribution consisted of "Huh?"
>
>
> You don't get it, asswipe. It isn't about YOUR convenience.

WTF is it about, then, all-knowing pustule?

4127. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 09:27:28 UTC
From: kashe@sonic.net
Message-ID: <d3ijf1p6o8qgif5a86t06hqlapcd1stls4@4ax.com>
Source record: 72046
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 06 Aug 2005 09:57:15 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sat, 30 Jul 2005 04:33:54 GMT, kashe@sonic.net Gave us:
>
>
>> What a bunch of psychobabble. Keep your soft science (at best)
>>off of a technical forum.
>
> Do you like attempting (and failing) at telling others what to do?
>Screw you, boy.
>
> Like I said, if you claim to be so technical conform to the
>protocol, don't bitch about how you like to be lazy and call it a
>matter of convenience.

Bite me, jerkoff.

4128. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 09:28:53 UTC
From: kashe@sonic.net
Message-ID: <i4ijf113pn2vvg50ecqi8kq574uhuvqe9c@4ax.com>
Source record: 72044
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 06 Aug 2005 09:58:19 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sat, 30 Jul 2005 04:37:34 GMT, kashe@sonic.net Gave us:
>
>>
>> Fuck the dilettantes -- if they're hot to find out what the
>>top post was about wjen they "pop in", let them get off their lazy
>>asses and scroll down. I've already read all that crap and don't feel
>>like scrolling past it for thirty posts in a row.
>>
>> If you can't keep up with the flow, move to
>>alt.kindergarten.reading.level.
>>
>> Help us all out by "popping out".
>
> Fuck you, asswipe.

What are you going to do when your widdle mind runs out of all
twelve inane variations on that sentence?

4129. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 09:30:01 UTC
From: kashe@sonic.net
Message-ID: <c7ijf1pvhavqkb43h549u99kvt3aanupa5@4ax.com>
Source record: 72048
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Sat, 06 Aug 2005 09:59:37 GMT, NunYa Bidness
<nunyabidness@nunyabidness.org> wrote:

>On Sat, 30 Jul 2005 04:44:57 GMT, kashe@sonic.net Gave us:
>
>>
>>(Bottom posted so that you don't have to give up too many of our
>>precious IQ points to find it.)
>
> Yeah...I'm quite sure that you don't have many left.

Oooohhh, another reply from the kindergarten sandbox.
Christ, you're a dullard.

4130. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 09:33:27 UTC
From: kashe@sonic.net
Message-ID: <edijf1lfuhrdagig1jcfcspmjn6mgcks8n@4ax.com>
Source record: 72047
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

On Fri, 05 Aug 2005 00:32:38 +0100, Nedlar <me@privacy.net> wrote:

>On Sat, 30 Jul 2005 07:44:46 +0100, Spike
><Aero.Spike@Technologies.invalid> wrote:
>
>
>>
>>Top-posting also encorages the lazy or incompetent to avoid properly
>>trimming their posts.
>
>What will encorage (sic) the lazy and incompetent to check their
>spelling?

Certainly not the simple-minded responses of those whose whose
only purpose in life is to be a spelling nazi.

4131. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 12:33:37 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f9f483_2@newsfeed.slurp.net>
Source record: 72049

"Richard Clark"
> I've seen no discussion of actual quantifiable results against these
> claims offered, so there is every chance that they are pinned together
> by the evident circularity:
>
> 1. There has been no measurement of ground conductivity by BL&E
> 2. Reggies model for ground conductivity counters NEC-4
> 3. NEC-4's model for ground conductivity conforms to BL&E
> 4. There has been no measurement of ground conductivity by BL&E

At least now you admit that BL&E didn't measure ground conductivity. That's progress.

First things first. The goal of BL&E's experimental work was to relate the 'efficiency' of MW vertical radiators of various electrical heights to radial ground systems of various configurations. It did not state or find that ground conductivity had any significant bearing on this, and, as shown by their measured results, it did not.

The entire theoretical section of this paper where ground currents are calculated, and the references to ground currents that were measured during the experimental work could have been omitted both from consideration and measurement without changing the conclusions of the paper. None of that was significant to their measured results for field strength vs system configuration, which was the purpose of their efforts. And omitting it would have spared you your confusion.

The FCC considers every non-sectionalized AM broadcast vertical radiator of a given electrical height using a given radial ground system to have a given efficiency. Period. Ground conductivity at the radiator site has nothing to do with that. It doesn't matter whether that site is in the middle of Kansas with 30 mS/m conductivity, or on Long Island with 0.5 mS/m, radiation emitted from a given antenna+radial ground system will be the same. The purpose of the BL&E field work was to determine those efficiency values, and it did so with high accuracy. Their findings have been a benchmark confirmed at many hundreds (probably thousands) of AM broadcast station applications since 1937.

By the way, even NEC-2 can be used to confirm the results of BL&E's study, by inserting at the bottom of the vertical radiator a low-value DC resistance simulating the resistance of the radial ground system connection with a perfect ground plane. This again shows that ground conductivity is insignificant in determining the radiation 'efficiency' of a MW broadcast vertical and its radial ground system.

RF

4132. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 12:54:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42f9f976_2@newsfeed.slurp.net>
Source record: 72050

"Richard Clark" wrote
> Elevated ground planes radiate from the entire structure. What they
> radiate is energy. The net sum of those energies, at a distance,
> combined into a load, reveal that the contribution of the radials
> nullifies in horizontal polarity,

Psst... the definition of "polarity" is not same as that of polarization.
Probably you meant to write "polarization," did you not?

RF

4133. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 13:21:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddcv1n$s7c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 72051

"Richard Fry" wrote
> At least now you admit that BL&E didn't measure ground conductivity.
That's
> progress.
>
==========

Admit it ? You got me wrong!

I was the FIRST to point it out many months ago. I did it politely by
blaming BL&E's poor memory.

Reg, G4FGQ

4134. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 13:33:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42fa02a5_2@newsfeed.slurp.net>
Source record: 72052

"Reg Edwards"
> "Richard Fry" wrote
>> At least now you admit that BL&E didn't measure ground conductivity.
>> That's progress.
>
> Admit it ? You got me wrong!
> I was the FIRST to point it out many months ago. I did it politely by
> blaming BL&E's poor memory.

Note that my post responded to the comments of Richard Clark,
not to yours.

Now if YOU will admit that there was no reason for BL&E to have measured ground conductivity for this study, and quit saying that they "forgot" to do it--that will be another victory for reality.

RF

4135. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 14:49:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ri4kf1dhtcokl49cj53rhcaetmi10a93n8@4ax.com>
Source record: 72053

On Tue, 09 Aug 2005 19:41:54 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Let's see, we have a premise that the ground conductivity was
>concocted from formula for the BL&E paper.

On Wed, 10 Aug 2005 07:33:37 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>At least now you admit that BL&E didn't measure ground conductivity. That's
>progress.

Hi OM,

Admission indeed, this is a consistent strain of interpretation along
with the remaining embellishment that is unresponsive to the post.

73's
Richard Clark, KB7QHC

4136. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 14:50:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b05kf1ls6t7btoc14iuj9b5q17o7bulhsl@4ax.com>
Source record: 72054

On Wed, 10 Aug 2005 07:54:45 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>"Richard Clark" wrote
>> Elevated ground planes radiate from the entire structure. What they
>> radiate is energy. The net sum of those energies, at a distance,
>> combined into a load, reveal that the contribution of the radials
>> nullifies in horizontal polarity,
>_____________
>
>Psst... the definition of "polarity" is not same as that of polarization.
>Probably you meant to write "polarization," did you not?
>
>RF

Hi OM,

True.

73's
Richard Clark, KB7QHC

4137. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 15:20:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123687387_2057@spool6-east.superfeed.net>
Source record: 72055

Jim Kelley wrote:
> Like I said, they cannot be created without energy. They can however
> exist without conveying energy from one place to another.
^^^^^^^^^
It's not really fair to the readers to use a word in an obscure
way and refuse to define it. Since you haven't presented your
esoteric definition for "convey", and it is not in the IEEE
Dictionary, would this be a true statement based on your
definition of "convey"?

The EM light wave energy from the North Star that is absorbed
by a human eye conveyed energy from the North Star to that
human eye. The EM light wave energy from the North Star that
misses earth and continues on through space did not convey any
energy from the North Star.

Those are pretty smart light waves, Jim. How did the ones that
entered the human eye now know many years ago to convey (bring)
some energy from the North Star? How did the ones that miss earth
now know many years ago to avoid conveying (bringing) any energy
from the North Star. :-)

I would guess that a statement like, "These EM waves are in the
process of conveying energy from the source to the load.", sounds
ridiculous to you?
--
73, Cecil http://www.qsl.net/w5dxp

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4138. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 15:31:57 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42fa1e4e_4@newsfeed.slurp.net>
Source record: 72056

"Richard Clark"
> Admission indeed, this is a consistent strain of interpretation along
> with the remaining embellishment that is unresponsive to the post.

So you say, but what I have written is a relevant commentary on the applicablity of the content and conclusions of the BL&E paper. You have offered nothing to disprove my comments. Nor can you disprove them, because objectively stated reality will not support whatever attempt you might make.

RF

4139. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 16:30:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <saakf1ltgdr898fuc315ag2gm0eqno4o55@4ax.com>
Source record: 72057

On Wed, 10 Aug 2005 10:31:57 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>"Richard Clark"
>> Admission indeed, this is a consistent strain of interpretation along
>> with the remaining embellishment that is unresponsive to the post.
>_____________
>
>So you say, but what I have written is a relevant commentary on the
>applicablity of the content and conclusions of the BL&E paper. You have
>offered nothing to disprove my comments. Nor can you disprove them, because
>objectively stated reality will not support whatever attempt you might make.

Hi OM,

What you have written is called bloated prose. It is suitable for ad
copy and trade show handouts that tout insignificant advantages only
because there is nothing substantial to present.

Eight pages of discussion from the report covering the conductivity of
earth has been rendered a foot note by your diminution of attention.
Your absurd conclusion that ground conductivity had no bearing on the
outcome is glaring contradiction to the scope and purpose of the
entire enterprise. To reduce this focus of efficiency to copper loss
is a toothpick in the forest of effort by these men.

73's
Richard Clark, KB7QHC

4140. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 16:35:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jvakf1123oh1rm3l9rq41haj89mjimuuqs@4ax.com>
Source record: 72058

On Wed, 10 Aug 2005 10:20:31 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>> Like I said, they cannot be created without energy. They can however
>> exist without conveying energy from one place to another.
> ^^^^^^^^^
>It's not really fair to the readers to use a word in an obscure
>way and refuse to define it.

What's sauce for goose must be shit for the gander.

>Since you haven't presented your
>esoteric definition for "convey", and it is not in the IEEE
>Dictionary

Truly English is a dead language here. There is more effort expended
in trying to find the Rosetta stone for its interpretation than the
performance of bench work or simple computation.

4141. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 16:49:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dddb7k$bq5$1@news.service.uci.edu>
Source record: 72059

Cecil Moore wrote:
> Jim Kelley wrote:
>
>> It's also arguable whether any energy is transferred from a source to
>> a lossless, open circuited, 1/2 wave transmission line after the
>> transient period.
>
>
> Use a signal generator with a circulator load as the source. Cause a
> noise glitch on the source signal. When will you see the glitch
> across the circulator resistor? One cycle later. Reckon where that
> glitch went during that one cycle? Man, that's a tough question. :-)

I notice you opted to use the word 'glitch' rather than 'transient'. :-)

ac6xg

4142. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 16:54:23 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dddbg9$c2v$1@news.service.uci.edu>
Source record: 72060

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Except that D is not caused by, and cannot be caused by C. Only
>> reflection can cause reflection. The claim that momentum reverses
>> direction without encountering a physical reflector is a violation of
>> conservation of momentum.
>
>
> You missed the point, Jim. The wave indeed does encounter a
> physical reflector and indeed cannot happen without the physical
> impedance discontinuity. It meets all of your requirements.

Well then, there it is. My requirements have been met. As long you say
so, Cecil. :-)

73 de ac6xg

4143. Re: Hazards of raised radials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 16:59:29 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42fa32d2_2@newsfeed.slurp.net>
Source record: 72061

"Richard Clark"
> What you have written is called bloated prose. It is suitable for ad
> copy and trade show handouts that tout insignificant advantages only
> because there is nothing substantial to present.
>
> Eight pages of discussion from the report covering the conductivity of
> earth has been rendered a foot note by your diminution of attention.
> Your absurd conclusion that ground conductivity had no bearing on the
> outcome is glaring contradiction to the scope and purpose of the
> entire enterprise. To reduce this focus of efficiency to copper loss
> is a toothpick in the forest of effort by these men.

You still provide no proof that what I wrote is incorrect
or inapplicable, I see.

I'm content to let objective readers decide for themselves
which of us has made the correct evaluation.

RF

4144. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 17:13:33 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dddck7cmf1@news.service.uci.edu>
Source record: 72062

Cecil Moore wrote:

> It's not really fair to the readers to use a word in an obscure
> way and refuse to define it. Since you haven't presented your
> esoteric definition for "convey", and it is not in the IEEE
> Dictionary, would this be a true statement based on your
> definition of "convey"?

> The EM light wave energy from the North Star that is absorbed
> by a human eye conveyed energy from the North Star to that
> human eye. The EM light wave energy from the North Star that
> misses earth and continues on through space did not convey any
> energy from the North Star.
>
> Those are pretty smart light waves, Jim. How did the ones that
> entered the human eye now know many years ago to convey (bring)
> some energy from the North Star? How did the ones that miss earth
> now know many years ago to avoid conveying (bringing) any energy
> from the North Star. :-)

I have no idea what you are talking about, Cecil. And so, apparently,
that makes two of us.

> I would guess that a statement like, "These EM waves are in the
> process of conveying energy from the source to the load.", sounds
> ridiculous to you?

Not unlike many of the other things you have said in this discourse.

But, take heart. You have brought your evil adversary to his knees.
Your relentless browbeating has finally taken its toll and achieved its
intended purpose. The blaring onslaught of abuse of logic, men made of
straw, mathematical sleight of hand, and alternative science has proven
too much for one person to endure. Personal intergrity has succombed to
vested interest, and I must withdraw. The internet may once again be
put to a good use. ;-)

ac6xg

4145. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 17:21:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123694670_2803@spool6-east.superfeed.net>
Source record: 72063

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> Use a signal generator with a circulator load as the source. Cause a
>> noise glitch on the source signal. When will you see the glitch
>> across the circulator resistor? One cycle later. Reckon where that
>> glitch went during that one cycle? Man, that's a tough question. :-)
>
> I notice you opted to use the word 'glitch' rather than 'transient'. :-)

Yep, in order to avoid your inevitable copout: "But that's
not steady-state." There are natural noise glitches existing
in every real-world steady-state system. Those natural noise
glitches can be used to track the flow of energy in the EM
waves.

In the real-world, a system never achieves true steady-state
conditions because those natural noise glitches are always
present and, unfortunately for your argument, can be easily
tracked.
--
73, Cecil http://www.qsl.net/w5dxp

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4146. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 17:32:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123695288_2817@spool6-east.superfeed.net>
Source record: 72064

Jim Kelley wrote:

> Cecil Moore wrote:
>> You missed the point, Jim. The wave indeed does encounter a
>> physical reflector and indeed cannot happen without the physical
>> impedance discontinuity. It meets all of your requirements.
>
> Well then, there it is. My requirements have been met.

I keep telling you that the only technical disagreement
we have left concerns only the minutest of details
after semantic adjustments have been made to account
for our differing definitions of words.

According to your definition of "convey", the energy
associated with EM waves isn't necessarily conveyed.

According to my definition of "convey", the energy
associated with EM waves is necessarily in the process
of being conveyed.
--
73, Cecil http://www.qsl.net/w5dxp

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4147. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 17:46:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123696138_2831@spool6-east.superfeed.net>
Source record: 72065

Jim Kelley wrote:

> Cecil Moore wrote:

> I have no idea what you are talking about, Cecil.

I'm obviously talking about the different definitions of "convey"
that you and I use. By your definition, the pack mule is never in
the process of conveying a person down the path into the Grand
Canyon. Conveyance of the person cannot be verified until the
person dismounts. If the person never dismounts, the pack mule
never was conveying the person. IMO, that's a silly definition.

>> I would guess that a statement like, "These EM waves are in the
>> process of conveying energy from the source to the load.", sounds
>> ridiculous to you?
>
> Not unlike many of the other things you have said in this discourse.

Yet, barring unexpected removal of the load from the system, most
hams are intelligent enough to predict conveyance of energy from
the source to the load. Otherwise, what would be the purpose of
getting on the air?
--
73, Cecil http://www.qsl.net/w5dxp

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4148. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 18:08:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123697478_2851@spool6-east.superfeed.net>
Source record: 72066

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>It's not really fair to the readers to use a word in an obscure
>>way and refuse to define it.
>
> What's sauce for goose must be shit for the gander.

I try to stick to common usage of words. Sometimes I'm wrong,
as I was about "non-glare glass". When I discover a mistake,
I am quick to admit it, correct it, and move on. Others, incapable
of admitting mistakes, would simply have pleaded an esoteric
definition of "glare" in an obvious CYA move.

Some posters delight in uncommon usage of words at the expense
of the majority of readers. I won't name any names. :-)

> Truly English is a dead language here. There is more effort expended
> in trying to find the Rosetta stone for its interpretation than the
> performance of bench work or simple computation.

Actually, there is a lot of effort expended in trying to under-
stand the words describing the previous bench work. Doing so
is simply an efficient use of time and effort.

For instance, I could expend a lot of time and effort duplicating
on the bench what has been reported on those two optics web pages.
But I am satisfied that they said what they meant and meant what
they said, i.e. wave cancellation (destructive interference) in
one direction causes a redistribution of the associated energy
(constructive interference) in another direction. Remembering that
Walter Maxwell said the same thing in "Reflections" a quarter of
a century ago is icing on the cake.
--
73, Cecil http://www.qsl.net/w5dxp

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4149. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 18:25:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lihkf1p7gh8puj9efn7ootfofdcm3ua5ds@4ax.com>
Source record: 72067

On Wed, 10 Aug 2005 13:08:42 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I won't name any names.
What an Herculean effort of restraint.

4150. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 18:35:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e2ikf1dlq2r9jvmjv6t1j0udj222fcr1p2@4ax.com>
Source record: 72068

On Wed, 10 Aug 2005 10:20:31 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>The EM light wave energy from the North Star that is absorbed
>by a human eye conveyed energy from the North Star to that
>human eye.
How much energy:
"conveyed?"
"converted?"

Quantified answers only as English seems to be so wholly unsuited to
this purpose.

4151. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 19:22:04 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <24a02$42fa53ea$97d55c26$9312@ALLTEL.NET>
Source record: 72069

Damn, Clinton could have used you guys!

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:e2ikf1dlq2r9jvmjv6t1j0udj222fcr1p2@4ax.com...
> On Wed, 10 Aug 2005 10:20:31 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
> >The EM light wave energy from the North Star that is absorbed
> >by a human eye conveyed energy from the North Star to that
> >human eye.
> How much energy:
> "conveyed?"
> "converted?"
>
> Quantified answers only as English seems to be so wholly unsuited to
> this purpose.

4152. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 19:30:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cclkf1p1icb7gr0fmotgimbcq8pn5eft4o@4ax.com>
Source record: 72070

On Wed, 10 Aug 2005 15:22:04 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Damn, Clinton could have used you guys!

Hi Fred,

Your post is living proof of the failure of English. I notice you
incorrectly dolloped an extra comma into your sentence.

73's
Richard Clark, KB7QHC

4153. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 19:45:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123703269_2949@spool6-east.superfeed.net>
Source record: 72071

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>The EM light wave energy from the North Star that is absorbed
>>by a human eye conveyed energy from the North Star to that
>>human eye.
>
> How much energy:
> "conveyed?"
> "converted?"
>
> Quantified answers only as English seems to be so wholly unsuited to
> this purpose.

I see the North Star on a clear night through detection of
photons. What does it matter how many photons I am detecting?
There's more than enough to detect. And every one contains
energy "conveyed" from Polaris and "converted" by my retina.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4154. FS: (2) Base antenna's. Cushcraft 6 meter and Diamond dual band VHF/UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 19:47:10 UTC
From: Aspen37 <pottsladd13@nospam.yahoo.com>
Message-ID: <2RsKe.582493$cg1.537376@bgtnsc04-news.ops.worldnet.att.net>
Source record: 72072
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

1-Cushcraft AR6, 3db gain 6mtr vertical antenna.
Universal Radio price $74.95

$35.00 for pickup in SE, Pa. only.

pottsladd13@yahoo.com

AR6 Specifications
Frequency: 50-54 MHz
Gain: 3 dBi
VSWR 2:1 Bandwidth: >2 MHz
Power: 1000 watts FM
Height: 10.1 Feet (3.1 m)
Ring Diameter: 13 inches (33 cm)
Mast Size: 1-1.25 inches (2.6-3.2 cm)
Wind Surface: 0.37 sq. feet
Connector: UHF
Weight: 2.5 Lbs (1.1 kg)
Specifications are subject to change without notice.

1-DiamondX510MA (UHF connector)

The Diamond X510NA was designed for strength and performance and is
pre-tuned to achieve maximum gain in both the 2m and 70cm amateur bands.
(2m: 3 x 5/8 and 70cm: 8 x 5/8). It has a 3 section fiberglass radome with
overlapping outer shells for added strength. It comes with stainless steel
mounting hardware and radials and strong-waterproof joint couplings.

X510NA Specifications
Frequency: 2M/70CM (144-148 and 440-450 MHz)
Gain: 8.3/11.7 dB
Power: 200 watts
Connector: N
Height: 17.2 feet
Weight: 5 Lbs.
Wind Rating: 90 MPH
We also carry the Diamond X510M which is the same antenna, but with an UHF
(SO239) connector instead of an N connector.

Universal Radio price $188.95.00 new.

$115.00 for pickup or meeting in Se, Pa. only.

pottsladd13@yahoo.com

4155. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 20:14:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tnnkf1ph65dg04lctt9hn03a5ik7e4120u@4ax.com>
Source record: 72073

On Wed, 10 Aug 2005 14:45:14 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>> How much energy:
>> "conveyed?"
>> "converted?"
>>
>> Quantified answers only as English seems to be so wholly unsuited to
>> this purpose.
>
>I see the North Star on a clear night through detection of
>photons. What does it matter how many photons I am detecting?
>There's more than enough to detect. And every one contains
>energy "conveyed" from Polaris and "converted" by my retina.

Clearly the understanding of the English words "How much energy" sets
the bar too high for this technical forum. That, or the experience
with the subject matter is so limited as to render the poster's
response in xeroxed cut-and-paste platitudes. An undocumented worker
could easily provide material of equal quality.

4156. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 20:33:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123706145_33@spool6-east.superfeed.net>
Source record: 72074

Richard Clark wrote:
> Clearly the understanding of the English words "How much energy" sets
> the bar too high for this technical forum. That, or the experience
> with the subject matter is so limited as to render the poster's
> response in xeroxed cut-and-paste platitudes. An undocumented worker
> could easily provide material of equal quality.

I could go look up the quantitative energy calculation
and post it. But nobody in the world would be better
off because of my effort. Therefore, I would rather
spend my time doing something more enjoyable like
swigging Merlot.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4157. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 20:33:28 UTC
From: old_amateur <old_amateur@nym.alias.net>
Message-ID: <20050810203328.24767.qmail@nym.alias.net>
Source record: 72075

```
-----BEGIN PGP SIGNED MESSAGE-----

http://www.qsl.net/w3ff/antenna_design.htm

~~~
This PGP signature only certifies the sender and date of the message.
It implies no approval from the administrators of nym.alias.net.
Date: Wed Aug 10 20:33:25 2005 GMT
From: old_amateur@nym.alias.net

-----BEGIN PGP SIGNATURE-----
Version: 2.6.3ia
Charset: noconv

iQEVAwUBQvpkmE5NDhYLYPHNAQFiogf+Jdx07SftMZiEx3zkyYDrn7E3Wg4Nrisr
VJ7TRgRRc644/rDoCmilJXcPza+61uhrzDMu+idreaQYfYeztz4Xy1DhZxmtQ8WR
AX77q5yvU4WN8ISVeEC/31dXdOuwvn86CLvO8NADRWZQ6S1Pc2aknhLBHDIlhbdz
MdKXtIsalyc6GLFVMdwabLcbwSRpJa5I02MDrog8HJuT0YlzWD2C6f7TKY9PIn1x
SudPUTGKmW09FOSKih19swlCezYghmYBzKTEimh7xzKR3wmzPfb6RRJQUGCTCKYF
zcqOmmN+WT8tvLJzIlPsyGSPuBBa1IQECu7XzZKZWqjjhkZV72m+JA==
=aCst
-----END PGP SIGNATURE-----
```

4158. FA: El-Key Paddle - Very Rare Morse Code Key

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 20:52:59 UTC
From: Dave <dave@somehere.net>
Message-ID: <h8qkf19cuo54g55mqi98ebqocgb0qk8c80@4ax.com>
Source record: 71926

I have this for auction on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5796993832&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

Thanks for looking

4159. Re: FS: (2) Base antenna's. Cushcraft 6 meter and Diamond dual band VHF/UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 20:58:18 UTC
From: Aspen37 <pottsladd13@nospam.yahoo.com>
Message-ID: <KTtKe.85592$5N3.13731@bgtnsc05-news.ops.worldnet.att.net>
Source record: 71927

What's your point??

4160. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 21:12:34 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2f3c0$42fa6e03$97d55c26$21683@ALLTEL.NET>
Source record: 71928

Well, here, are, a, few, more, for, your, reading, pleasure.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:cclkf1p1icb7gr0fmotgimbcq8pn5eft4o@4ax.com...
> On Wed, 10 Aug 2005 15:22:04 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Damn, Clinton could have used you guys!
>
> Hi Fred,
>
> Your post is living proof of the failure of English. I notice you
> incorrectly dolloped an extra comma into your sentence.
>
> 73's
> Richard Clark, KB7QHC

4161. FA: Heathkit Station Monitor SB-614 Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 21:13:20 UTC
From: Dave <dave@somehere.net>
Message-ID: <9erkf15d7fkv3ob1ce60ped1cdn8d89ngp@4ax.com>
Source record: 71929

I have this for sale on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5797026388&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

Thanks for Looking

4162. FA: Yaesu Landliner SP101PB Speaker Phone Patch for FT-101

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 21:19:36 UTC
From: Dave <dave@somehere.net>
Message-ID: <1nrkf1dem93tvqeaiavv2evmobrvpb6cfb@4ax.com>
Source record: 71930
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

I have this for sale on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5797070032&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

Thanks for looking.

4163. FA: Yaesu YH-55 Headphones - As New in Box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 21:23:05 UTC
From: Dave <dave@somehere.net>
Message-ID: <80skf1lkutq3jrc4lhogth32a13d4fptg7@4ax.com>
Source record: 71931
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

I have this for sale on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5796984738&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

Thanks for looking.

4164. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 21:50:56 UTC
From: jgboyles@aol.com
Message-ID: <1123710656.841055.225070@g14g2000cwa.googlegroups.com>
Source record: 71932

Fred McKenzie wrote:
> In article <1123456735.674265.301380@g49g2000cwa.googlegroups.com>,
> jgboyles@aol.com wrote:
>
> > Yves Dussault wrote:
> > > I'm thinking of getting a Buddipole antenna.
> > > I would loke comments on that antenna.
> > > Thanks.
> > > VE2ATD
> >
> > The Buddipole is a short, loaded portable antenna. Works OK for
> > camping, pedestrian mobile, field day, mobile and any number of other
> > uses. I would not use it as my primary antenna at my home QTH.
>
> Gary & JG & YD-
>
> If the Buddipole is the one I'm thinking of, you can make out a lot
> cheaper by buying or making a bracket that has capability of mounting two
> mobile whips as a dipole.
>
> I have one that came from the Lakeview Company in Anderson, South
> Carolina. I have it mounted on a five foot section of TV mast supported by
> a roof-mount tripod from Radio Shack. I've seen slightly different
> brackets from other companies at hamfests.
>
> I tried it with a pair of different mobile whips. One was a single-band
> Ham Stick (Lakeview?) and the other a Hustler. On 40 Meters it didn't
> work nearly as well as a full dipole, but not bad for an indoor loaded
> dipole about five feet off the floor!
>
> 73, Fred, K4DII

Hi Fred, The orginal poster referred to the Buddipole antenna which
is a commerical antenna sold by that name. What you are thinking of is
2 mobile Hamsticks mounted on a bracket configured as a dipole. Other
than them both being dipoles, they are not that much alike.
The Buddipole is very light weight, covers 40m-2m by adjustment of
loading coils, and element length. I have seen people walking around
at hamfests using them, they had a harness like one would use for a
flag in a parade to support the "mast". They had one of the little
Yaesu Xcvrs (817?) strapped to their back, and were in QSO with
somebody, may have been a guy in the parking lot with a mobile.
The Hamstick dipoles are about the same length (16') but are heavier.
The efficiency is probably less on 40m and 20m due to the loading

schemes. To change bands you have to have aquire 2 more Hamstiks for each band you wish to use. The Hamsticks can do 80m and maybe 160m, but they are near dummy loads on these bands. The Hamsticks seem to have more "sag" than the Buddipole.
As I stated in my previous post, I would hate to have to rely on either as my primary base antenna.
Gary N4AST

4165. Re: FA: El-Key Paddle - Very Rare Morse Code Key

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 22:20:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123712603_169@spool6-east.superfeed.net>
Source record: 71933

Dave wrote:
> I have this for auction on eBay:

Dave, did you know that rec.radio.swap was created to keep
postings like yours off the technical newsgroups?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4166. Re: The CFA de-bagged (Was: Re: First "Del" and now "D'Alembertian"!)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 22:33:34 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <UvmdncHIFfxiHWffRVn-pQ@comcast.com>
Source record: 71934
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

NunYa Bidness wrote:

SNIPPED
>
>
> You don't get it, asswipe. It isn't about YOUR convenience.

IT IS EXACTLY ABOUT MY CONVENIENCE ... SCROLLING FOREVER IS INCONVENIENT
FOR ME !!!!!!!!

AND YOU STILL HAVEN'T LEARNED TO CONTROL YOUR PROFANITY.

Someday when you can used respectable language .....

4167. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 22:46:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <al0lf1dj6cetc006tu0v43iobu8eqmg61i@4ax.com>
Source record: 71935

On Wed, 10 Aug 2005 17:12:34 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Well, here, are, a, few, more, for, your, reading, pleasure.

Printing did not always include punctuation and in fact it is a relatively recent invention where some authors who tried to publish complained publisher wanted them to add inverted commas to denote a speaker's words.

Before then, another recalcitrant author submitted his manuscript with
the last page:
...........................,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,"""""""""""""""""""""""""";;;;;;
;;;;;;;;;;;;;
...........................,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,"""""""""""""""""""""""""";;;;;;
;;;;;;;;;;;;;
...........................,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,"""""""""""""""""""""""""";;;;;;
;;;;;;;;;;;;;
...........................,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,"""""""""""""""""""""""""";;;;;;
;;;;;;;;;;;;;
salt and pepper the text to taste with these marks

73's
Richard Clark, KB7QHC

4168. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 22:51:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kv0lf1tn1rr0o212h47d9puvbgcj23q476@4ax.com>
Source record: 71936

On Wed, 10 Aug 2005 15:33:09 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I could go look up the quantitative energy calculation
>and post it. But nobody in the world would be better
>off because of my effort.
Apparently it wasn't worth the effort making the original statement
either.

Rises to the occasion of standing up in front of a memorial crowd and
saying
"Four score and seven years.....
Skip it, they're pushing up daisies now and
I got a play to go to."

4169. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 23:10:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42fa8982$0$32199$39cecf19@news.twtelecom.net>
Source record: 71937

Really? I thought the rule was, better too many commas, than too few.

tom
K0TAR

Richard Clark wrote:

> On Wed, 10 Aug 2005 15:22:04 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>Damn, Clinton could have used you guys!
>
>
> Hi Fred,
>
> Your post is living proof of the failure of English. I notice you
> incorrectly dolloped an extra comma into your sentence.
>
> 73's
> Richard Clark, KB7QHC

4170. Looking for Butternut HF9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 23:13:10 UTC
From: solidgoldZZZ@optonline.net
Message-ID: <42fa8a04.726957@news.optonline.net>
Source record: 71938
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Hi all,

I am looking for a used Butternut HF9V vertical. If you have one for sale, please reply to this message, and let me know its' condition, and how old it is (they changed in the late 90's). Remove the "ZZZ" from my E-mail address to send me mail.

Thanks,

RON KA2IIA
==========
Remove the ZZZ from my E-mail address to send me E-mail.

4171. one and a half meter US amateur band: antennas for 225Mhz, or CH 12-DAB ..

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 23:13:31 UTC
From: Debbie H <markovREMOVETHIS@tele2.be>
Message-ID: <markovREMOVETHIS-0439E1.01132811082005@nn2.swip.net>
Source record: 71939
Cross-posted to: rec.radio.shortwave,alt.radio.digital,rec.radio.amateur.antenna,rec.radio.amateur.dx

I have a Digital radio and reception of one packet on 225Mhz is poor.

This sentence gives me hope:

"DAB is very close to an American (not European) amateur radio band (the
220-225 MHz or one and a half meter band). It is therefore possible to
find suitable instructions for building an own aerial in American
amateur radio publications".

Anybody can point me to such a publication??

I have a general band III TV antenna, designed for 170-240Mhz,
but the station is on 225Mhz, so thats on the upper side of the
band. I already "redesigned" a yagi antenna and made the
directors closer to each other, but do not know the exact size,
or maybe there is some simple design that makes the signal boom.

Is there a publication/calculation to design Yagi's?

(I built a loop for ~500-1850khz and I'm dreaming of a loop antenna ;-)

Thanks,

Marc

--

4172. Re: FA: Yaesu YH-55 Headphones - As New in Box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 23:24:21 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <SMidnQlwxa07EWffRVn-1A@adelphia.com>
Source record: 71940
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

Dave wrote:
> I have this for sale on eBay:
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5796984738&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1
>
> Thanks for looking.

Dave, you are spamming several newsgroups with this stuff.
FA: posts have no place in rec.radio.amateur antenna, boatanchors, misc,
or equipment. It belongs in swap only.

Thanks.

- Mike KB3EIA -

4173. FA: Motorola Police Speaker Microphone - Very Nice

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-10 23:32:59 UTC
From: Dave <dave@somehere.net>
Message-ID: <rh3lf1h4tgac08g2k1ubpgrm36loej77oo@4ax.com>
Source record: 71941
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

I have this for sale on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5797305343&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

Thanks for looking.

4174. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 00:05:34 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <RuednUXC3psSC2ffRVn-pg@comcast.com>
Source record: 71942

Cecil, where did you get that necktie?

puns wrote:

> Don't Be Cruel
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:42f52cc3$1_1@spool9-west.superfeed.net...
>
>>Here's the latest picture of me at the microphone.
>>
>>http://www.qsl.net/w5dxp/w5dxp.jpg
>>
>>
>>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
>>News==----
>>http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
>>Newsgroups
>>---= East/West-Coast Server Farms - Total Privacy via Encryption =---
>
>
>

4175. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 00:23:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f05lf1dbmkicdru7226qch1l3nl33u97fn@4ax.com>
Source record: 71943

On Wed, 10 Aug 2005 18:10:58 -0500, Tom Ring <news0002@taring.org>
wrote:
>Really? I thought the rule was, better too many commas, than too few.

Hi Tom,

A strange rule indeed. If we examine your sentence, the commas set
off a parenthetic. A parenthetical can be withdrawn without changing
the sense of what was written:
>I thought the rule was than too few.

Commas also set off constructs that might be moved to another part of
the sentence without changing the sense of it:

According to Strunk and White, in a short sentence you can discard
what would have been mandated by normal rules.

In a short sentence you can discard what would have been mandated by
normal rules, according to Strunk and White.

In a short sentence, according to Strunk and White, you can discard
what would have been mandated by normal rules.

Compare:
>I thought the rule was than too few, better too many commas.
(a grammatical structure which almost describes total cancellation)

>Better too many commas, I thought the rule was than too few.

I am quite sure you were pulling our leg. Others express extreme
difficulty with language as though it was their first time applying
for a green card.

One of my favorite conservative writers had an amusing comment on the
nature of this language difficulty here in Seattle with taking the
Drivers exam:
The written test wasn't hard. You had a choice of English or
Spanish. If you couldn't read either language, they waived the
test and automatically gave you a taxi license. I passed in
English.

The road test was more of a problem. Seems that I had a burned-out
turn signal. Seems the evaluator, an attractive but sternly
imposing middle-aged woman, noticed. Since this was a real street
test in real traffic, procedures required that I use hand signals,
which I hadn't used since taking my initial test several decades
before. Soon I was flailing madly, bumping cars as I tried to
parallel park, running stop signs, cutting people off. The

evaluator said nothing, but with each check mark she made on her clipboard sheet, I grew more flustered. Finally, I gave up and said:

Look, this is the way we drive back East.

Not in my state, you don't.

I'll be good. Promise. Can I have my license? Please?

She glared, but passed me. I took my paperwork to the issuing counter.

Would you like to register to vote while you're here? the clerk asked.

OK. Put me down as Republican.

Registration is nonpartisan. Would you like to be an organ donor?

Sure. Can I leave my organs to Republicans?

Wrong thing to say. But at least I wasn't from California.

73's
Richard Clark, KB7QHC

4176. Re: W5DXP at the microphone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 01:32:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123724101_591@spool6-east.superfeed.net>
Source record: 71944

Ham op wrote:
> Cecil, where did you get that necktie?

A fellow GED teacher's mother sewed it for me.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4177. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 01:40:59 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42faacab$0$22199$39cecf19@news.twtelecom.net>
Source record: 71945

Richard Clark wrote:

> On Wed, 10 Aug 2005 18:10:58 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>>Really? I thought the rule was, better too many commas, than too few.
>
>
> Hi Tom,
>
> A strange rule indeed. If we examine your sentence, the commas set
> off a parenthetic. A parenthetical can be withdrawn without changing
> the sense of what was written:
>
>>I thought the rule was than too few.
>
>
> Commas also set off constructs that might be moved to another part of
> the sentence without changing the sense of it:
>
> According to Strunk and White, in a short sentence you can discard
> what would have been mandated by normal rules.
>
> In a short sentence you can discard what would have been mandated by
> normal rules, according to Strunk and White.
>
> In a short sentence, according to Strunk and White, you can discard
> what would have been mandated by normal rules.
>
> Compare:
>
>>I thought the rule was than too few, better too many commas.
>
> (a grammatical structure which almost describes total cancellation)
>
>
>>Better too many commas, I thought the rule was than too few.
>
>
> I am quite sure you were pulling our leg. Others express extreme
> difficulty with language as though it was their first time applying
> for a green card.
>
> One of my favorite conservative writers had an amusing comment on the

> nature of this language difficulty here in Seattle with taking the
> Drivers exam:
> The written test wasn't hard. You had a choice of English or
> Spanish. If you couldn't read either language, they waived the
> test and automatically gave you a taxi license. I passed in
> English.
>
> The road test was more of a problem. Seems that I had a burned-out
> turn signal. Seems the evaluator, an attractive but sternly
> imposing middle-aged woman, noticed. Since this was a real street
> test in real traffic, procedures required that I use hand signals,
> which I hadn't used since taking my initial test several decades
> before. Soon I was flailing madly, bumping cars as I tried to
> parallel park, running stop signs, cutting people off. The
> evaluator said nothing, but with each check mark she made on her
> clipboard sheet, I grew more flustered. Finally, I gave up and
> said:
>
> Look, this is the way we drive back East.
>
> Not in my state, you don't.
>
> I'll be good. Promise. Can I have my license? Please?
>
> She glared, but passed me. I took my paperwork to the issuing
> counter.
>
> Would you like to register to vote while you're here? the clerk
> asked.
>
> OK. Put me down as Republican.
>
> Registration is nonpartisan. Would you like to be an organ
> donor?
>
> Sure. Can I leave my organs to Republicans?
>
> Wrong thing to say. But at least I wasn't from California.
>
> 73's
> Richard Clark, KB7QHC

I sniggers and larfs.

tom
K0TAR

4178. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 01:49:43 UTC
From: richardharrison@webtv.net
Message-ID: <4794-42FAAEB7-28@storefull-3252.bay.webtv.net>
Source record: 71946

Jim, AC6AG wrote:
"The thing you really need to consider is how much energy is actually
"in" a wave (whatever that means) that delivers no energy."

If it delivers no energy, it has none to deliver. That`s common knowledge. Most antenna systems are highly efficient. Nearly all delivered energy is radiated. Look at a few radiation patterns. Sum the watts per square meter in all the equare meters surrounding the antenna, and the power very nearky totals the power fed the antenna. The total watts are independent of antenna pattern.

Watts per square meter suppressed in one direction, appear in other directions. Power is not annihilated by cancellation. It is redistributed in other directions. Power can`t be retained in the cancelled directions because it would then be unavailable for redistribution. We know that is not the way cancellation works. The cancelled energy is redistributed.

Long ago, a fellow named Young demonstrated how wave interference works in a famous experiment now named for him. You likely have seen this experiment in a physics lab near you.

Young squeezed light from a common electric lamp through a narrow slit to serve as a light source for two more parallel slits farther along. The light from the latter two slits illuminated a projection screen.

The screen display is seen to consist of alternate bright and dark bands. This is explained as caused by the difference in path length between the two illuminating slits and the bands on the screen.

The bright bands result from constructive interference where the difference in path length from the two sources is an even number of 1/2-wavelencths. For example, two 1/2-wavelengths makes 360-degrees. Such phase rotation produces the same phase as no rotation whatsoever.

The dark bands result from destructive interference where the difference in path length from the two sources is an odd number of 1/2-wavelengths. For example, a phase rotation of 180-degrees corresponds to the odd number (1). Two equal and opposite waves add to zero and produce darkness in a particular band space of the display.

This interference display is an old game that is often presented in a high school physics lab. Sometimes it is done with pinholes replacing the slits, but slits make a brighter display.

I used to think that Joseph F. Schlitz really made the brightest display!

Best regards, Richard Harrison, KB5WZI

4179. Required radials on DX-88

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 02:16:24 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <2PqdnWgfBfMoKWffRVn-rA@vnet-inc.com>
Source record: 71947

Am in the process of installing a Hy-Gain DX-88 that I just picked up. It has the 160 meter kit included. According to the manuals I should install 16 radials at 14 feet each if just using up to 80 meters. If I plan to use 160 meters than I should also install another 16 radials at 24 feet each.

The question: Would I better off to install all 32 of these radials (as per the manual) or put down 4 radials cut to 1/4 wave length for 10, 12, 15, 17, 20, 30, 40, 80 and 160 meters? Putting down 1/4 wave radials on 80 and could prove to be a problem real estate wise. I am out in the country but even then I still have some limitations.

Sam - K7SAM

4180. Re: one and a half meter US amateur band: antennas for 225Mhz, or CH 12-DAB ..

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 02:35:14 UTC
From: "Mr. Man with the Master Plan" <null@null.net>
Message-ID: <7QyKe.26593$sf6.21021@fe08.lga>
Source record: 71948
Cross-posted to: rec.radio.shortwave,alt.radio.digital,rec.radio.amateur.antenna,rec.radio.amateur.dx

Here in the states, the 1.25m band follows normal ham operation practice.
a vertical polarized antenna cut to about 31cm or so as a 1/4wave antenna
over four radials works well for FM operation where as horizontal works well
for SSB

You shold be able to find decent plans for a 1.25 beam in either a ARRL,
JARL, or RSGB publication, or use or friend Mr. Google on the interweb.

Or, you can tell them what frequency to make the beam for at
http://www.arrowantennas.com/. Pretty darn good and cheap antennas I use
a few UHF beams here and the combo 2m/70cm beam for portable ops

-MMWTMP

"Debbie H" <markovREMOVETHIS@tele2.be> wrote in message
news:markovREMOVETHIS-0439E1.01132811082005@nn2.swip.net...
>I have a Digital radio and reception of one packet on 225Mhz is poor.
>
> This sentence gives me hope:
>
> "DAB is very close to an American (not European) amateur radio band (the
> 220-225 MHz or one and a half meter band). It is therefore possible to
> find suitable instructions for building an own aerial in American
> amateur radio publications".
>
> Anybody can point me to such a publication??
>
> I have a general band III TV antenna, designed for 170-240Mhz,
> but the station is on 225Mhz, so thats on the upper side of the
> band. I already "redesigned" a yagi antenna and made the
> directors closer to each other, but do not know the exact size,
> or maybe there is some simple design that makes the signal boom.
>
> Is there a publication/calculation to design Yagi's?
>
> (I built a loop for ~500-1850khz and I'm dreaming of a loop antenna ;-)
>
> Thanks,
>
> Marc
>
> --
>

>

4181. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 03:05:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t4elf1h6mao9qqc29kmc48pr2mj883vs6e@4ax.com>
Source record: 71949

On Wed, 10 Aug 2005 20:49:43 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>If it delivers no energy, it has none to deliver. That`s common
>knowledge. Most antenna systems are highly efficient.

Hi Richard,

This is so totally overwhelmed by negative example:

Let us consider that you as an amateur, transmitting at 100W seeks to deliver all the energy of your radiated signal.

Let us arbitrarily assign 100% antenna efficiency, and absolutely no ground loss - all 100W are indeed RF and radiating outward to the dictates of a perfect, lossless, world wide distribution.

Let us further consider that every man, woman, and child on this earth has a radio and is listening to you at S-9 signal strength.

They consume
(6ï¿½10^9) ï¿½ ((50ï¿½10^-6)ï¿½ Voltï¿½/50 Ohm)
(6ï¿½10^9) ï¿½ (50ï¿½10^-12) Watt
300 mW

In other words 99.7W has never found its way to any listener and we know full well that the entire population of earth would never hear you on any Ham frequency. Nor would a significant number for who did, would it be as good as S-9 for that 100W signal.

To say 99% of your energy simply evaporated away, to no purpose whatever, would be over generous by 10,000 fold.

However, the point of this much energy is to establish the fields to allow those who do hear you, to hear you at that S-9 level (or better, or worse). Without this tremendous energy effort, transmitting only the energy deemed to be for delivery would confine us to telephones (and the losses there are hardly worth crowing efficiency).

Even talking to your buddy as you cross an open field together is vastly inefficient (energy-wise). Unless, of course, global warming is not perceived to be a problem (sound energy is heat, phonons; RF energy, photons, is not always rendered into heat).

73's
Richard Clark, KB7QHC

4182. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 04:24:18 UTC
From: richardharrison@webtv.net
Message-ID: <5207-42FAD2F2-156@storefull-3257.bay.webtv.net>
Source record: 71950

Richard Clark wrote:
"This is so totally overbalanced ny negative example."

I omitted two words "(cancelled wave)".

If it (Cancelled wave) delivers no energy, it has none to deliver.

After all, power is limited in capability. If it still exists in its cancellation, it can`t be acting elsewhere.

Best regards, Richard Harrison, KB5WZI

4183. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 06:01:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ipolf1h1d57489aucsro0f3npkqb8qfbpo@4ax.com>
Source record: 71951

On Wed, 10 Aug 2005 23:24:18 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>If it (Cancelled wave) delivers no energy, it has none to deliver.

Hi Richard,

Hmmm, a syllogism.

If it exists as a wave, energy is the root of its existence. If it delivers no energy, "it" still exists, but so does some other "it" exist with an equal, counter impulse. Cancellation is not a solitary act. A Cancelled wave is not a single entity. In fact, both energies have been delivered to a load (waves do not act upon each other in a vacuum), and have balanced out to create the condition of "nothing being delivered."

Otherwise the discussion rather fancifully pivots in a void of non-waves, not existing and we could then introduce "King Lear" and his observation that "nothing begets nothing." Should I point out that Lear was a pathetic loser?

>After all, power is limited in capability. If it still exists in its >cancellation, it can`t be acting elsewhere.

And we return to the excess energy of the thin film reflections after "total" cancellation. Nice to see that the topic is still being discussed. ;-)

73's
Richard Clark, KB7QHC

4184. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 11:37:59 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42fb38f9_1@newsfeed.slurp.net>
Source record: 71952

"Richard Clark" wrote
>(Richard Harrison) wrote:
>
>Most antenna systems are highly efficient.
>
> Hi Richard,
>
> This is so totally overwhelmed by negative example:
> Let us consider that you as an amateur, transmitting at 100W seeks to
> deliver all the energy of your radiated signal. ... (irrelevant math) ...
> In other words 99.7W has never found its way to any listener

---

Probably you are the only reader of Richard Harrison's post who took it to mean that a radio wave is an efficient means of transferring power from one point to another in an uncontrolled propagation environment.

Though you chose not to include it in your response, Richard Harrison's next sentence of that post reads, "Nearly all delivered energy is radiated." He did NOT write that nearly all radiated energy is delivered, which apparently is the way you understood it. A bit of dyslexia, perhaps?

As even you must know in lucid moments, most practical transmitting antennas ARE highly efficient at converting the power applied to them into EM radiation.

RF

4185. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 11:59:26 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <42fb3e01_5@newsfeed.slurp.net>
Source record: 71953

"Marc Delporte" wrote
> By tracing the directional pattern of the antenna system on a sheet of
> tissue paper, then placing the paper over the azimuthal map,
> the "coverage" of the antenna will be readily evident.

The "coverage" provided by an antenna is defined by much more than its radiation pattern. Overlaying the radiation pattern on a map is almost useless in determining coverage except in a very general way.

Some of the other factors determining coverage are:

- Frequency
- Time of day
- Season of year
- Sunspot cycles
- Terrain profiles
- Earth conductivity

Coverage software is available that considers the most important factors. I am familiar with the versions applying to AM/FM/TV broadcast, but not for ham radio. I imagine someone else will post info leading you to that.

RF

4186. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 12:15:36 UTC
From: SignalFerret <signalferret@verizon.net>
Message-ID: <IjHKe.6479$0d.2780@trnddc03>
Source record: 71954

What you're looking for is a program called Radio Mobile Deluxe, by VE2DBE.
It can be found at http://www.cplus.org/rmw/english1.html.

Robert
N3LGC

"Marc Delporte" <marc.delporte@wanadoo.fr> wrote in message
news:42fb1dc1$0$3103$8fcfb975@news.wanadoo.fr...
> Hello
>
>
>
> In ARRL 1974 :
>
>
>
> By tracing the directional pattern of the antenna system on a sheet of
> tissue paper, then placing the paper over the azimuthal map,
>
> the "coverage" of the antenna will be readily evident.
>
>
>
> I suppose that in 2005, this could be done with computers !
>
>
>
> I'm looking for such software !
>
>
>
> Any ideas, any experiences ?
>
>
>
> 73'
>
>
>
> Marc F1GSN
>
>

4187. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 12:21:39 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <kfsrs2-q4e.ln1@p400bob.personal.cox.net>
Source record: 71957

Marc and Richard

UKWTools will give you coverage plots based on, terrain, ground type,
freq, antenna gain using the Longley-Rice model. Freq coverage I think
is from 20MHz to 20GHz but doesnt (obviously) include ionospheric effects.

It uses SRTM and GTOP30 terrain data, is GPL and available for both
Windows and Linux

It does not give a coverage plot for gain in a specific direction. It
assumes the gain is omnidirectional.

Found here http://www.qslnet.de/member/g4klx in the Software section

Feel free to ask me more about it or provide an output sample,

Cheers Bob VK2YQA/W5

Richard Fry wrote:
>
>
> "Marc Delporte" wrote
>
>> By tracing the directional pattern of the antenna system on a sheet of
>> tissue paper, then placing the paper over the azimuthal map,
>> the "coverage" of the antenna will be readily evident.

4188. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 12:27:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123763405_2701@spool6-east.superfeed.net>
Source record: 71955

Marc Delporte wrote:
> By tracing the directional pattern of the antenna system on a sheet of
> tissue paper, then placing the paper over the azimuthal map,
> the "coverage" of the antenna will be readily evident.
>
> I suppose that in 2005, this could be done with computers !
> I'm looking for such software ! Any ideas, any experiences ?

The radiation pattern can, of course be obtained from EZNEC.
Free demo version available at www.eznec.com

The azimuthal map can be obtained from PIZZA.
Free at www.tonnesoftware.com

These two can be overlaid to obtain the graphic that you
desire. The latest version of PIZZA is supposed to take the
output data from EZNEC and plot it centered at a point on
the earth. I haven't had time to try the new version yet.
--
73, Cecil http://www.qsl.net/w5dxp

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4189. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 12:51:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123764840_2725@spool6-east.superfeed.net>
Source record: 71956

Richard Harrison wrote:
> If it (Cancelled wave) delivers no energy, it has none to deliver.
>
> After all, power is limited in capability. If it still exists in its
> cancellation, it can`t be acting elsewhere.

As Walter Maxwell said in "Reflections" a quarter of a century ago:

"The destructive wave interference between these two complementary
(reflected) waves ... causes a complete cancellation of energy flow
in the direction toward the generator. Conversely, the constructive
wave interference produces an energy maximum in the direction toward
the load, ..."
--
73, Cecil http://www.qsl.net/w5dxp

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4190. Re: one and a half meter US amateur band: antennas for 225Mhz, or CH 12-DAB ..

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 14:00:11 UTC
From: Paul Rigg <g0tvb@tiscali.co.uk>
Message-ID: <42fb59f1_4@mk-nntp-2.news.uk.tiscali.com>
Source record: 71958
Cross-posted to: rec.radio.shortwave,alt.radio.digital,rec.radio.amateur.antenna,rec.radio.amateur.dx

You could try
http://www.clarc.org/Articles/uhf.htm

It looks fairly straight forward.
"Debbie H" <markovREMOVETHIS@tele2.be> wrote in message
news:markovREMOVETHIS-0439E1.01132811082005@nn2.swip.net...
>I have a Digital radio and reception of one packet on 225Mhz is poor.
>
> This sentence gives me hope:
>
> "DAB is very close to an American (not European) amateur radio band (the
> 220-225 MHz or one and a half meter band). It is therefore possible to
> find suitable instructions for building an own aerial in American
> amateur radio publications".
>
> Anybody can point me to such a publication??
>
> I have a general band III TV antenna, designed for 170-240Mhz,
> but the station is on 225Mhz, so thats on the upper side of the
> band. I already "redesigned" a yagi antenna and made the
> directors closer to each other, but do not know the exact size,
> or maybe there is some simple design that makes the signal boom.
>
> Is there a publication/calculation to design Yagi's?
>
> (I built a loop for ~500-1850khz and I'm dreaming of a loop antenna ;-)
>
> Thanks,
>
> Marc
>
> --
>
>

4191. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 14:01:38 UTC
From: richardharrison@webtv.net
Message-ID: <7263-42FB5A42-189@storefull-3256.bay.webtv.net>
Source record: 71959

Richard Clark wrote:
"If it delivers no energy, "it" still exists, but so does some other "it" exist with an equal counter impulse."

We can have an incident and reflected wave or an incident and reflected impulse. The reflection is not contemporaneous with the incident in their generation. The reflection was generated earlier and is on its way back. Power generation remains constant regardless of wave interference, at least until the reflection arrives at a point where it interferes with generation.

Complete cancellation leaves zero energy on the path of the cancelled wave. "It" isn`t "two opposite somethimgs". "It" is zero. Energy cancellation on one path redistributes the energy on other paths or directions.

Power is energy generated at some rate. A fixed rate means that after total cancellation, redistrubited energy is the total, and cancelled energy is zero. You can`t have your cake and eat it too (to coin an expression).

Best regards, Richard Harrison, KB5WZI

4192. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 14:18:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123770142_2805@spool6-east.superfeed.net>
Source record: 71960

Richard Harrison wrote:
> You can`t have your cake and eat it too (to coin an expression).

That must be the conservation of cake principle. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

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4193. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 14:22:50 UTC
From: Marc Delporte <marc.delporte@wanadoo.fr>
Message-ID: <42fb5f22$0$25023$8fcfb975@news.wanadoo.fr>
Source record: 71961

To Cecil W5DXP

Thanks for the "PIZZA"

Works very well.

It was excattly what I was looking for ! :+)

Note : I do have change the date :+)

73'

Marc F1GSN

> The radiation pattern can, of course be obtained from EZNEC.
> Free demo version available at www.eznec.com
>
> The azimuthal map can be obtained from PIZZA.
> Free at www.tonnesoftware.com
>
> These two can be overlaid to obtain the graphic that you
> desire. The latest version of PIZZA is supposed to take the
> output data from EZNEC and plot it centered at a point on
> the earth. I haven't had time to try the new version yet.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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4194. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 15:05:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123772948_3025@spool6-east.superfeed.net>
Source record: 71962

Marc Delporte wrote:
> Note : I do have change the date :+)

Since you were posting from sometime in the
future, I was going to ask you what the next
lottery numbers were going to be. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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4195. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 15:14:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1qpmf1936vaumnhmakpvk446rh7ef6ck2q@4ax.com>
Source record: 71963

On Thu, 11 Aug 2005 09:01:38 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Complete cancellation leaves zero energy on the path of the cancelled >wave. "It" isn`t "two opposite somethimgs". "It" is zero. Energy >cancellation on one path redistributes the energy on other paths or >directions.

Hi Richard,

I see you prefer to look at the world like King Lear and mumble "Nothing begets nothing" then. This is all fine and well, but it leads to unnecessary elaborations like:

>Power is energy generated at some rate.

It certainly is, but Power has nothing to do with cancellation except as a proof of two wave's energies combining to nothing. This is not a "Nothing begets nothing" argument. Two energies pass without interaction unless there is a load.

: A fixed rate means that after
>total cancellation, redistrubited energy is the total,

It was, is, and will always be the same total, that is the meaning of conservation of energy. Time alters nothing but the ability to push a load around to map the distribution of power. Power is the summation of all energies into a load.

>and cancelled energy is zero.

There is no such thing as cancelled energy short of a Nuclear folding of the universe. No, the total contribution of two energies into a load is zero power. Each of those energies remains to contribute to all fields or they would never propagate.

> You can`t have your cake and eat it too (to coin an >expression).

Then you need to make your choice, are you eating (power), or are you having (energy)? To attempt to say they both live by the same rules is going to leave frosting on your face.

73's
Richard Clark, KB7QHC

4196. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 15:17:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2uqmf1htgfj11fqspo80812h9f0fcljsl8@4ax.com>
Source record: 71964

On Thu, 11 Aug 2005 07:51:24 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>As Walter Maxwell said

Walt is perfectly capable of carrying his own water.

4197. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 15:50:41 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123775644_4315@spool6-east.superfeed.net>
Source record: 71965

Richard Clark wrote:
> Two energies pass without interaction unless there is a load.

The exception to that statement is two coherent waves traveling an identical path in the same direction. If the two waves are of equal magnitudes and opposite phases, they cancel completely in their original direction of travel. In a transmission line, their combined energy components reverse direction in order to satisfy the conservation of energy principle. In the absence of any additional sources or loads, destructive interference energy must exactly equal constructive interference energy.

The above can occur at a lossless impedance discontinuity in a transmission line - no load required.

> Power is the summation of all energies into a load.

Often power is simply the joules/sec existing at a unit-area plane or passing a point on a transmission line. The power-flow (Poynting) vector doesn't require a load. All it requires is an EM wave.
--
73, Cecil, http://www.qsl.net/w5dxp

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4198. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 15:56:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o7tmf1tvobaji12ht6kbkqrngvqtnh14lt@4ax.com>
Source record: 71966

On Thu, 11 Aug 2005 10:50:41 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>energy components
name them

4199. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 16:20:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123777411_5277@spool6-east.superfeed.net>
Source record: 71967

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>As Walter Maxwell said
>
> Walt is perfectly capable of carrying his own water.

If he does, you will probably accuse him of beating
his own drum. :-) Walt, in the past few days, pointed
out to me that what I thought was my slightly original
thought, was actually published in "Reflections",
based on an Oct. '73 QST article and on earlier
references from 1942 and 1947.
--
73, Cecil, http://www.qsl.net/w5dxp

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4200. 4Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 16:20:53 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373837383542FB88F544@zetnet.co.uk>
Source record: 71898

Hi All. Any good links for building 4Mtr beams for portable work or permanent. TIA Dave.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

4201. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 16:37:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123778475_5781@spool6-east.superfeed.net>
Source record: 71968

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>energy components
>
> name them

Well, it would be easier if you didn't delete the
context. I assume you are talking about the energy
components associated with the canceled waves, traveling
rearward before the cancellation and traveling forward
after the cancellation where the cancellation is a
continuous process (until source power is turned off).

In s-parameter terms, the two joules/sec components are
(s11*a1)^2 and (s12*a2)^2 when b1^2=0 as explained in the
HP Ap Note.

In ham terms, they are Pfor1(rho^2) and Pref2(1-rho^2)
where Pfor1 is the forward-traveling source power incident
upon the impedance discontinuity and Pref2 is the rearward-
traveling reflected power incident upon the impedance
discontinuity from the other direction.

Note that I am using common usage terms for "forward power"
and "reflected power" since their units are watts. I would
normally talk about "forward energy" and "reflected energy"
to avoid the wrath of the purists. :-)

In terms of my article, they are P3 and P4 where:

P3 = Pfor1(rho^2) and P4 = Pref2(1-rho^2)

Pref1 = P3 + P4 - 2*Sqrt(P3*P4) = 0
--
73, Cecil, http://www.qsl.net/w5dxp

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4202. 2005 Silverado truck radio install questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 16:52:59 UTC
From: Michael Herron <hurricane145@worldnet.att.net>
Message-ID: <LnLKe.88283$5N3.63315@bgtnsc05-news.ops.worldnet.att.net>
Source record: 71969

Anyone install a 2/440 rig in a 2005 Silverado? I will be soon and was just wondering if anyone had been through it and had any advice that may help. Where you can route power cables or coax throught the firewall. Perhaps a good place you can pick up power form under the dash instead of going to the battery. If I decide to roof mount an antenna, what is the best way to make the hole for an NMO mount in the roof? Any experience with HF in the 2005 Silverado? Noise problems? Any RFI getting into any components of the trucks electronics?
I have an IC-706 and a screwdriver antenna I may want to use in it. I had no problems in my old 1990 truck but not much electronics in it compared to the 2005 (the employee discount GOT me)!! Thanks, Mike K7MH.

4203. Re: 2005 Silverado truck radio install questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 17:07:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123780250_6129@spool6-east.superfeed.net>
Source record: 71970

Michael Herron wrote:

> Anyone install a 2/440 rig in a 2005 Silverado? I will be soon and was just
> wondering if anyone had been through it and had any advice that may help.
> Where you can route power cables or coax throught the firewall. Perhaps a
> good place you can pick up power form under the dash instead of going to the
> battery.

I run 100W from my IC-706 through the aux cigarette lighter
socket. My 1996 GMC Sierra has a cigarette lighter and two
aux sockets. In my pickup, they are reasonably "clean" and
I have no complaints. I also have the IC-706 grounded to a
seat belt anchor bolt and use the remote head cable.
--
73, Cecil, http://www.qsl.net/w5dxp

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4204. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 17:39:56 UTC
From: richardharrison@webtv.net
Message-ID: <4179-42FB8D6C-281@storefull-3258.bay.webtv.net>
Source record: 71971

Richard Clark wrote:
"There is no such thing as cancelled energy short of a Nuclear folding of the universe."

Most would agree to energy conservation.

Young`s experiment produces alternating bright and dark nands.

The bright bands are brighter because they contain redirected power that would have appeared in the dark bands as well as the power idirectly lluminating the bright bands. In the bright band spaces, power is in-phase from both source slits. In the dark spaces, power is 180-degrees put of phase between the illuminations from the two slits. This is caused by the distances from the two sources.

At the risk of diverting attention from the topic, I`ll indulge in analogy. An impedance bridge has a null meter to indicate balance. Superposition says a circuit with two (or more) sources may be analyzed (with proper restrictions) as if there were only one source in the system. That is, respones to the various sources may be analyzed separately to determine the overall circuit response.

A balanced bridge may be considered as two voltage dividers set for the same ratio and providing identical voltages to each terminal of the null meter. Each divider taken alone provides the same fractiom of the bridge generator`s voltage. Alone, each divider can supply current through the null meter.

Equal and opposite ciurrents don`t flow through the null meter. No current flows through the null meter because with equal and opposite voltages on each side of the null meter there is no difference of potential to evoke a current flow.

Given a perfect transmission line with a complete reflrction, a length can be found which produces a reflection with with the same phase and magnitude as that of the generator. With equal and same phase volts on either side of the generator/line junction, current does not flow. No potential exists to evoke a current flow. This is the same as a very high impedance indeed.

Best Regards, Richard Harrison, KB5WZI

4205. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 17:50:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7q2nf11j51lft4jdkegtde61a5opmp2smd@4ax.com>
Source record: 71972

On Thu, 11 Aug 2005 11:37:51 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>>energy components
>> name them
>Well, it would be easier if you didn't delete the context.
>>> their combined energy components reverse direction

The deletion was deliberate because energy does not move and is an
irrelevant embroidery of the discussion. Of course, if this is about
rolling batteries across the floor, I've yet to see how much "power
has been delivered" revealed in these threads.

4206. 40 Meter local prop theroy question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:05:17 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <xrMKe.243$ct5.30@fed1read04>
Source record: 71973

Assuming 2 identically equipped stations operating
mid day on 40m SSB, how far apart would they have
to be to see differences in propagation from a station
say 500 miles away?

Remember - both stations are identical - same rig, same
antenna (Inverted V @ 40'), same local noise levels, same
radiation patterns.

What I'm trying to visualize is the way a given signal hits
a city and whether an instance where station A can hear
better than station B is a problem with station B or simply
propagation patterns of an inbound signal.

Hope that makes sense..... lol!
--
73 de Ken KGWX - Flying Pigs #-1055
Elecraft K2 #4913

4207. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:11:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l94nf11n2jnq1kfruipmh20urqfjgke9rq@4ax.com>
Source record: 71974

On Thu, 11 Aug 2005 12:39:56 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

> No potential exists to evoke a current flow.

Hi Richard,

The potentials (energy) abound, you even describe them. The sum of all voltages (energy) equal zero at balance (absolutely no power into the load of the meter), but that does not mean there has been any cancellation of energy - that is glaringly obvious. Remove the load, and you can set the bridge adjustments ANYWHERE and there would still be no interaction of energies.

At absolutely every segment of the circuit, there is a potential difference, and all must exist to present the null (which is evidence of a potential difference of zero, not evidence of no potentials). This is Kirchoff's law in the raw.

Contrary wise, removing the source of energy will give an exactly identical reading on the current meter, and to say that no energy is the same as balanced energy is a shuffle on par with the old shell game - King Lear muttering "Nothing begets nothing."

For cancellation of energy to exist, your analogy proves there must be an identical energy present to offset it. This explicitly admits energy remains in the face of narrowly inspecting an isolated instance of balance (or cancellation - all the same, only a matter of topology).

73's
Richard Clark, KB7QHC

4208. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:16:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123784374_8005@spool6-east.superfeed.net>
Source record: 71975

Richard Harrison wrote:
> Given a perfect transmission line with a complete reflrction, a length
> can be found which produces a reflection with with the same phase and
> magnitude as that of the generator. With equal and same phase volts on
> either side of the generator/line junction, current does not flow.

Net current doesn't flow. But a circulator and load will
separate the forward component from the reflected component.
For instance, at a point on a transmission line where the
net current is zero, the forward current may be 100 amps and
the reflected current may be 100 amps, just out of phase with
each other.

In your above example, if the source is a signal generator
equipped with a circulator and load resistor, the net current
at the signal generator terminals can be measured to be zero
while the circulator resistor is smoking. Thus the difference
between distributed networks and lumped circuits.
--
73, Cecil, http://www.qsl.net/w5dxp

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4209. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:18:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123784536_8007@spool6-east.superfeed.net>
Source record: 71876

Richard Clark wrote:
> The deletion was deliberate because energy does not move ...

The Sun's energy is necessary for life on earth. If the
Sun's energy doesn't move, how does it get from the sun
to the earth?
--
73, Cecil, http://www.qsl.net/w5dxp

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4210. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:23:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123784818_8011@spool6-east.superfeed.net>
Source record: 71877

Richard Clark wrote:
> For cancellation of energy to exist, your analogy proves there must be
> an identical energy present to offset it.

One possibility is that the source simply delivers less energy.
One possibility is constructive interference.
One possibility is additional dissipation.
--
73, Cecil, http://www.qsl.net/w5dxp

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4211. Re: 40 Meter local prop theroy question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:35:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <em5nf11prcqth93469trhj30400ji5sump@4ax.com>
Source record: 71878

On Thu, 11 Aug 2005 13:05:17 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

> Assuming 2 identically equipped stations operating
>mid day on 40m SSB, how far apart would they have
>to be to see differences in propagation from a station
>say 500 miles away?

Hi Ken,

If they (A and B) are separated by your local city/town/village, then
the common sense of the broadcast model would suggest that both of you
have an equal shot at it. Otherwise the entire broadcast industry
would have collapsed in the late 20's from lost listenership.

When I put this kind of test to a propagation modeler, and I tighten
the beamwidth of the antenna to 10ï¿½, then after the first hop, the
signal covers an area larger than a 70 mile wide county with its
footprint. I don't think your cross-town buddies are going to be left
out in the cold, if all things are as equal as you suggest.

73's
Richard Clark, KB7QHC

4212. Re: 40 Meter local prop theroy question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 18:41:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <26a76$42fb9bde$97d55c26$17029@ALLTEL.NET>
Source record: 71879

Given the problem as you have stated it, get station B to check his coax or connectors etc. It is remotely possible, but unlikely that propagation would be the culprit.

I made the assumption you were not is a city that is spread over several hundred miles.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message news:xrMKe.243$ct5.30@fed1read04...
> Assuming 2 identically equipped stations operating
> mid day on 40m SSB, how far apart would they have
> to be to see differences in propagation from a station
> say 500 miles away?
>
> Remember - both stations are identical - same rig, same
> antenna (Inverted V @ 40'), same local noise levels, same
> radiation patterns.
>
> What I'm trying to visualize is the way a given signal hits
> a city and whether an instance where station A can hear
> better than station B is a problem with station B or simply
> propagation patterns of an inbound signal.
>
> Hope that makes sense..... lol!
> --
> 73 de Ken KG<illegible>WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>

4213. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 19:24:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gl6nf1hhdi3q2minqea2417nckg2krenma@4ax.com>
Source record: 71880

On Thu, 11 Aug 2005 13:18:53 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>The Sun's energy is necessary for life on earth. If the
>Sun's energy doesn't move, how does it get from the sun
>to the earth?

If you wish the crutch of illusion, the photon moves, the energy is in its wavelength. You may analyze the photon as a wave, or as a particle, but none of the energy is ever destroyed - short of collision with an anti-photon. Reflection, interference, what-have-you never presents us with opportunity to indulge in nuclear pyrotechnics. If the sun were suddenly replaced with its equivalence in Dark Energy, I don't think we would freeze.

4214. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 19:28:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qg9nf15he8dvb984t03kcjdkp7taaadqdn@4ax.com>
Source record: 71881

On Thu, 11 Aug 2005 13:23:35 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>One possibility is that the source simply delivers less energy.
Turning off the source of the bridge will balance the meter too?
Amusing.
>One possibility is constructive interference.
That is one whacked out lack of balance.
>One possibility is additional dissipation.
The meter suddenly becomes lossy?

4215. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 19:35:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123789129_8115@spool6-east.superfeed.net>
Source record: 71882

Richard Clark wrote:
> If you wish the crutch of illusion, the photon moves, the energy is in
> its wavelength. You may analyze the photon as a wave, or as a
> particle, but none of the energy is ever destroyed ...

That's nice but we weren't talking about energy being
destroyed. We were talking about energy moving. You said
energy doesn't move.

> The deletion was deliberate because energy does not move.

So what is the origin of the energy that turns my arms brown?
--
73, Cecil, http://www.qsl.net/w5dxp

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4216. Sony kitchen radio antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 19:42:04 UTC
From: jeplett <jeplett.1tmc08@news.radiobanter.com>
Message-ID: <jeplett.1tmc08@news.radiobanter.com>
Source record: 71885

Hi radio folk. Not sure if this is the right forum for this post, but here goes:

I have one of those white under-cabinet Sony kitchen radio / cd players. The radio uses a digital tuner. They have notoriously poor radio reception, and the internet is full of posts by people ranting about how Sony could sell such a poor radio.

Rather than rant, I thought I'd ask you experts if there's anything that can be done to improve the reception. I understand the power cord is used as the antenna. I've tried stringing-up an extension cord to the power cord, with no improved reception. Could I open it up and attach an external antenna? If so, how would I do this? Any ideas, or experience with this particular problem?

Regards,

--
jeplett

4217. Re: 40 Meter local prop theroy question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 20:17:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11fncige9e6ku9e@corp.supernews.com>
Source record: 71883

Some of the other responses seem reasonable for average propagation. However, I wouldn't be surprised to see short-term variations (on the order of seconds to minutes) up to tens of dB between antennas placed as close as a wavelength or less, due to multipath propagation. You've undoubtedly seen this as the "picket fencing" you get when using a mobile VHF or UHF rig.

Roy Lewallen, W7EL

Ken Bessler wrote:
> Assuming 2 identically equipped stations operating
> mid day on 40m SSB, how far apart would they have
> to be to see differences in propagation from a station
> say 500 miles away?
>
> Remember - both stations are identical - same rig, same
> antenna (Inverted V @ 40'), same local noise levels, same
> radiation patterns.
>
> What I'm trying to visualize is the way a given signal hits
> a city and whether an instance where station A can hear
> better than station B is a problem with station B or simply
> propagation patterns of an inbound signal.
>
> Hope that makes sense..... lol!
> --
> 73 de Ken KGï¿½WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>

4218. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-11 20:18:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <16cnf15tnii5kag2qr1ab63rj8m1g23ngk@4ax.com>
Source record: 71884

On Thu, 11 Aug 2005 14:35:25 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Richard Clark wrote:
>> If you wish the crutch of illusion, the photon moves, the energy is in
>> its wavelength. You may analyze the photon as a wave, or as a
>> particle, but none of the energy is ever destroyed ...
>
>That's nice but we weren't talking about energy being
>destroyed. We were talking about energy moving. You said
>energy doesn't move.
As indicated above.
>
>> The deletion was deliberate because energy does not move.
>
>So what is the origin of the energy that turns my arms brown?
Were you ancestors slave holders? The old in-and-out, I suppose.
Sweat and Texas dust? Presuming the sweat comes from work.
The power of dissipated wavelengths from photonic sources delivering
them? Did the thermometer pop out yet?
Rug burn?
Too much caffeine sipping?

Odd how many personal problems get posted here. Try
play.doctor.dermatology and add more details for your symptoms

4219. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 01:55:50 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <42FC018E.E4C00667@earthlink.net>
Source record: 71886
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Travis Jordan wrote:
>
> Dave wrote:
> > I think if one knows he code is a true amateur radio operator.
>
> I'll add to that.
>
> True amateur radio operators can build spark gap receivers and
> transmitters from scratch using materials they have in their junk boxes.

So what? It hasn't been legal to operate a spark transmitter for a couple generations. You don't even have to be a ham to build, just pick up some of the early books and follow the instructions. The receivers of that era would be useless in today's congested RF spectrum, as well.

On the other hand if you can design and build a state of the art communications system without outside help, that is something to brag about.

--
Link to my "Computers for disabled Veterans" project website deleted after threats were telephoned to my church.

Michael A. Terrell
Central Florida

4220. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 02:46:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <42fc0d72$0$32207$39cecf19@news.twtelecom.net>
Source record: 71887

Michael A. Terrell wrote:

> So what? It hasn't been legal to operate a spark transmitter for a
> couple generations. You don't even have to be a ham to build, just pick
> up some of the early books and follow the instructions. The receivers
> of that era would be useless in today's congested RF spectrum, as well.
>
> On the other hand if you can design and build a state of the art
> communications system without outside help, that is something to brag
> about.
>

Hell, I'd be happy if a significant percentage of the late vintage
extras, who have "proved their worth" at 20 WPM, could operate worth a
damn. I know techs who have better manners and know more about traffic
handling.

Note that I said "late vintage".

tom
K0TAR

4221. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 03:34:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123817805_9029@spool6-east.superfeed.net>
Source record: 71888
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Michael A. Terrell wrote:
> On the other hand if you can design and build a state of the art
> communications system without outside help, that is something to brag
> about.

Real hams do DSP filtering at IF.
--
73, Cecil http://www.qsl.net/w5dxp

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4222. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 05:02:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71889
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

I do wish people would not refer to me as a 'ham'.

Amongst the very few things I am proud of is that I am a true Class-A Radio Amateur.

Incidentally, as a British pensioner, my annual licence is free. When requested I just have to confirm I am still in circulation. Same applies to riding on buses when mobile or not mobile, sober or not sober.

Arn't you American Amateurs envious?

Reg, G4FGQ.

==========

"Cecil Moore" wrote -
>
> Real hams do DSP filtering at IF.

4223. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 05:39:01 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <VBWKe.189$k92.154@newssvr19.news.prodigy.com>
Source record: 71890
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Reg Edwards wrote:
> I do wish people would not refer to me as a 'ham'.
>
> Amongst the very few things I am proud of is that I am a true Class-A
> Radio Amateur.
>
> Incidentally, as a British pensioner, my annual licence is free. When
> requested I just have to confirm I am still in circulation. Same
> applies to riding on buses when mobile or not mobile, sober or not
> sober.
>
> Arn't you American Amateurs envious?
> ----
> Reg, G4FGQ.
>
> ==========
>
> "Cecil Moore" wrote -
>
>>Real hams do DSP filtering at IF.
>
>
>

What's a bus? Is it anything akin to a Hummer?
73,
Tom Donaly, KA6RUH

4224. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 05:48:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11foe0h1es58c61@corp.supernews.com>
Source record: 71891
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Reg Edwards wrote:
> I do wish people would not refer to me as a 'ham'.
>
> Amongst the very few things I am proud of is that I am a true Class-A
> Radio Amateur.
>
> Incidentally, as a British pensioner, my annual licence is free. When
> requested I just have to confirm I am still in circulation. Same
> applies to riding on buses when mobile or not mobile, sober or not
> sober.
>
> Arn't you American Amateurs envious?

I can't imagine why we should be. I've been a ham for nearly 50 years (Extra class for more than 40) and have never paid a cent for my license (or my commercial FCC licenses, for that matter). Can't recall the last time I rode on a bus. But the 17.5% tax I'll pay on everything I buy in your fine country during an upcoming trip will be my small contribution to your continued enjoyment of your lifestyle. Then I'll return to Oregon, where we have no sales tax and I can ride on the light rail for a couple of hours for a bit under a pound. Even for those of us who aren't pensioners.

Roy Lewallen, W7EL
Ham.

4225. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 06:36:37 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <42FC435A.D64CC0F3@earthlink.net>
Source record: 71892
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Cecil Moore wrote:
>
> Michael A. Terrell wrote:
> > On the other hand if you can design and build a state of the art
> > communications system without outside help, that is something to brag
> > about.
>
> Real hams do DSP filtering at IF.

What frequency? The last system I worked on was a 70 MHz IF with a
90 MHz upper limit for a dual channel telemetry receiver with a
diversity combiner all done in the digital domain.. It was the
L3-Com/Microdyne RCB-2000. It also had a 70 MHz IF output that was
regenerated after the FIR filters to feed wideband logging recorders for
later analysis. Multiple IF bandwidths and Video bandwidths. It was
controlled by a custom GUI under embedded NT, and had IEEE-488, RS-232
and Ethernet ports for remote programming and control. All for just
$80,000 per radio.

The DR-2000 was the same basic radio chassis, but it was just single
channel receiver.

--
Link to my "Computers for disabled Veterans" project website deleted
after threats were telephoned to my church.

Michael A. Terrell
Central Florida

4226. Re: Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 09:55:43 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1123840542.974034.87720@f14g2000cwb.googlegroups.com>
Source record: 71893

Hello Bob,

the message "Error: Wire 5, seg 91, Ex-src: Not allowed near open wire-end" is not correct. At least not when a TL is connected to the wire. May I ask what 4nec2 version you were running, because I thought I had solved this 'problem' already some time ago.

Thanks in advance,
Arie.

4227. Re: Required radials on DX-88

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 10:24:19 UTC
From: Jim <K4SQR@juno.com>
Message-ID: <1123842259.852884.277730@g49g2000cwa.googlegroups.com>
Source record: 71894

Sam,
Install as many 35 foot or longer radials as possible. They will work
fine for the higher bands, ie, 20-10 meters.
Radials do make the difference.
Good luck,
Jim, K4SQR

4228. Re: Representing Q sections in 4NEC2... How?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 11:49:36 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <hveus2-jfg.ln1@p400bob.personal.cox.net>
Source record: 71895

Hi Arie

5.5.2

Will also be emailing you privately about some feedback running the pgm
under Linux Wine

Cheers Bob W5/VK2YQA

Arie wrote:
>
> Hello Bob,
>
> the message "Error: Wire 5, seg 91, Ex-src: Not allowed near open
> wire-end" is not correct. At least not when a TL is connected to the
> wire. May I ask what 4nec2 version you were running, because I thought
> I had solved this 'problem' already some time ago.
>
> Thanks in advance,
> Arie.
>

4229. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 13:26:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123853371_10977@spool6-east.superfeed.net>
Source record: 71896
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Reg Edwards wrote:
> Incidentally, as a British pensioner, my annual licence is free. When
> requested I just have to confirm I am still in circulation. Same
> applies to riding on buses when mobile or not mobile, sober or not
> sober.

Reg, the bomber terrorist sitting next to you on that bus
seems to have received as many benefits from the British
government as you do.
--
73, Cecil http://www.qsl.net/w5dxp

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4230. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 13:27:20 UTC
From: Marc Delporte <marc.delporte@wanadoo.fr>
Message-ID: <42fb5220$0$1213$8fcfb975@news.wanadoo.fr>
Source record: 71909

To all

Thanks for the answers.

I should have precise that I was looking to overlaid "HF" horizontal antenna patterns with azimuthal maps.

2 software for the azimuthal maps :

- from SM3GSJ software GCM : free, simple, and does work well

http://hem.passagen.se/sm3gsj/

- and PIZZA : will be fine if it does interface with Mininec, Eznec, ...

I do understand that HF propagation (long distance, iono, ...) is an other topic.

However, I would like "first" to understand "the effect of terrain" on the vertical patterns with software like

Terrain Analysis K6STI or HF Terrain Assessment N6BV (see my specific post on that).

Note : Thanks for the links for VHF - UHF programs such as : UKW Tools G4KLX or Radio Mobile Deluxe VE2DBE

73'

Marc F1GSN

"Marc Delporte" <marc.delporte@wanadoo.fr> a crit dans le message de news: 42fb1dc1$0$3103$8fcfb975@news.wanadoo.fr...
> Hello
>
>
>
> In ARRL 1974 :
>
>
>
> By tracing the directional pattern of the antenna system on a sheet of
> tissue paper, then placing the paper over the azimuthal map,
>
> the "coverage" of the antenna will be readily evident.
>
>
>

> I suppose that in 2005, this could be done with computers !
>
>
>
> I'm looking for such software !
>
>
>
> Any ideas, any experiences ?
>
>
>
> 73'
>
>
>
> Marc F1GSN
>
>

4231. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 13:35:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123853877_10985@spool6-east.superfeed.net>
Source record: 71897
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Michael A. Terrell wrote:

> Cecil Moore wrote:
>>Real hams do DSP filtering at IF.
>
> What frequency?

BTW, that was a joke. Being retired, I don't know what the upper
frequency limit is for DSP sampling nowadays. I was using one
million samples per second systems at Intel ten years ago.
They worked well at 455 kHz not only for filtering but for
decoding/detection.
--
73, Cecil http://www.qsl.net/w5dxp

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4232. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 15:32:39 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <76ednTNt7O45XGHfRVn-2Q@comcast.com>
Source record: 71899
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Cecil Moore wrote:
> Michael A. Terrell wrote:
>
>> On the other hand if you can design and build a state of the art
>> communications system without outside help, that is something to brag
>> about.
>
>
> Real hams do DSP filtering at IF.

Cecil, I thought you and I did our 'DSP Filtering' by adjusting the
regeneration control or the whisker.

What's an IF ?? IF! If What??

4233. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 16:58:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123866104_11205@spool6-east.superfeed.net>
Source record: 71900
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Ham op wrote:
> Cecil Moore wrote:
>> Real hams do DSP filtering at IF.
>
> Cecil, I thought you and I did our 'DSP Filtering' by adjusting the
> regeneration control or the whisker.

Strangely enough, I never used anything except a superhet.

> What's an IF ??

455 Khz on everything I used back then. With no RF amp,
my S38 would receive the same signal on two different
frequencies on 15m, sometimes eliminating an interferring
signal in the process.
--
73, Cecil, http://www.qsl.net/w5dxp

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4234. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 17:09:17 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <3llpf15sfskejme6tu150cg4lgs7c51r6a@4ax.com>
Source record: 71901

On Fri, 12 Aug 2005 11:58:20 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Ham op wrote:
>> Cecil Moore wrote:
>>> Real hams do DSP filtering at IF.
>>
>> Cecil, I thought you and I did our 'DSP Filtering' by adjusting the
>> regeneration control or the whisker.
>
>Strangely enough, I never used anything except a superhet.
>
>> What's an IF ??
>
>455 Khz on everything I used back then. With no RF amp,
>my S38 would receive the same signal on two different
>frequencies on 15m, sometimes eliminating an interferring
>signal in the process.

Cecil, without the RF amp to erase the image, the S38 could boast
two-fer-one, or double yer pleasure--two places to get yer
information--you could take yer pick. The filter in that unit was a
Gilette double-edged type.

Walt

4235. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 17:40:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123868612_11243@spool6-east.superfeed.net>
Source record: 71902

Walter Maxwell wrote:
> Cecil, without the RF amp to erase the image, the S38 could boast
> two-fer-one, or double yer pleasure--two places to get yer
> information--you could take yer pick. The filter in that unit was a
> Gilette double-edged type.

Actually, I wanted to build the amplitude discriminator filter
described in the April 195? edition of QST. With back to back
discriminators, it blocked the strong signals and let the weak
ones through. Larson E. Rapp certainly performed miracles with
unusual electronic designs back in those days.

One time the BFO oscillator cap failed in my Hallicrafters S53A.
Shorty (W5 Old Lonely Virgin) the local TV repairman, didn't
have anything that small so he showed me how to twist two wires
together until I got the right beat frequency.
--
73, Cecil, http://www.qsl.net/w5dxp

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4236. Re: FA: Yaesu YH-55 Headphones - As New in Box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 19:33:48 UTC
From: JOE <JOE@hotmail.com>
Message-ID: <1123875230.3223785fea96174b8d975eecd4caebb4@meganetnews2>
Source record: 71903
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:SMidnQlwxa07EWffRVn-1A@adelphia.com...
> Dave wrote:
>> I have this for sale on eBay:
>>
>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5796984738&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1
>>
>> Thanks for looking.
>
>
> Dave, you are spamming several newsgroups with this stuff.
> FA: posts have no place in rec.radio.amateur antenna, boatanchors, misc,
> or equipment. It belongs in swap only.
>
> Thanks.
>
> - Mike KB3EIA -

Mike - did you just wake up from a 9 year coma or something??

YOU are spamming your hatred of Ebay just as much as he's spamming
his ad! If you're so offended, learn to use kill files and you'll never
even
see the evil awful horrid Ebay ads. Add my name to and you'll never hear
from me again either

JOE

4237. Re: FA: Yaesu YH-55 Headphones - As New in Box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 20:52:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123880086_11361@spool6-east.superfeed.net>
Source record: 71904
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

JOE wrote:
> YOU are spamming your hatred of Ebay just as much as he's spamming
> his ad!

But hatred of Ebay is not against the usenet posting rules. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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4238. Re: (2) Base antenna's. (SOLD)Cushcraft 6 meter and Diamond dual band VHF/UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-12 22:55:34 UTC
From: Aspen37 <pottsladd13@nospam.yahoo.com>
Message-ID: <GN9Le.92499$5N3.29390@bgtnsc05-news.ops.worldnet.att.net>
Source record: 71905
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

Cushcraft AR6 is sold, Thanks!!!!!!!!!

4239. Re: FA: Yaesu YH-55 Headphones - As New in Box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 00:21:47 UTC
From: nobody@anon.lcs.mit.edu
Message-ID: <20050813002147.25896.qmail@nym.alias.net>
Source record: 71906

(Following from offical usenet rules.
Personal likes and dislikes are not rules.)

Date: Tue, 28 Dec 1999 09:00:16 GMT
Message-ID: <FnG10G.H6K@tac.nyc.ny.us>
From: netannounce@deshaw.com (Mark Moraes)
Subject: Rules for posting to Usenet
Newsgroups: news.announce.newusers

..

Announcement of professional products or services on Usenet is allowed,
provided suitable restraint is exercised.
..

There exists an alternative hierarchy called "biz" specifically for
commercial postings.

..

4240. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 00:57:32 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <iN2dnaHNlbId2GDfRVn-vw@comcast.com>
Source record: 71907
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> I do wish people would not refer to me as a 'ham'.
>
> Amongst the very few things I am proud of is that I am a true Class-A
> Radio Amateur.
>
> Incidentally, as a British pensioner, my annual licence is free. When
> requested I just have to confirm I am still in circulation. Same
> applies to riding on buses when mobile or not mobile, sober or not
> sober.
>
> Arn't you American Amateurs envious?
> ----
> Reg, G4FGQ.

Not the least little bit. All our renewals are free regardless of age or work status except for those who elected to get a vanity call sign of their own choosing instead of sticking with an assigned call.

Dee D. Flint, N8UZE

4241. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 03:11:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123902848_191@spool6-east.superfeed.net>
Source record: 71908
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Dee Flint wrote:
> Not the least little bit. All our renewals are free regardless of age or
> work status except for those who elected to get a vanity call sign of their
> own choosing instead of sticking with an assigned call.

I would have loved to stick with my assigned call when I moved
from TX to CA in 1971 but the FCC forced me to give it up. Now
they have charged me the social security money they gave me to
get it back.
--
73, Cecil http://www.qsl.net/w5dxp

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4242. Re: Removal of Morse Code from Amateur License Requirements...Vanity call wheeee

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 06:41:00 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <wAgLe.12998$rp.9951@bignews1.bellsouth.net>
Source record: 71910
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Well for myself I wouldn't have picked the spaghetti soup group of letters I had to
start with. But after retiring I thought I might as well get a little vain... That's all
that left after a while. he he.... So for a whopping $20 I got a vanity call after
moving to a new call area. I thought in my second life after heart surgery, back surgery,.ect. I might as well have a little fun. After all isn't that what a
hobby is for? I'll get 10 years out of my new call but I can't get that far on $20 worth of gas these days. eh. Now all I need is about $20K for that new $13,000 ham radio and a tower and antenna ha ha.

What ever is fun is ok. Even if it means dumping a 25 year old call sign.
Let me see Ham radio so varied what next.
Been there done that.... DXCC... RTTY... OSCAR.,.. PACKET...
oh and of coarse RAG CHEW codey slow no problem getting in the time for that award. Contest... Special events... Homebrew...
and a cold brew...

Oh BTW it isn't the one with the most toys... It's the one who gets to play the most with their toys. Have fun everyone and don't take it too seriously or you get an ulcer and high blood pressure.

Cheers 73 ol' WB9SMX new K4TWO when the papers arrive. ;-)

"Dee Flint" <deeflint01@comcast.net> wrote in message news:iN2dnaHNlbId2GDfRVn-vw@comcast.com...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>>
>> I do wish people would not refer to me as a 'ham'.
>>
>> Amongst the very few things I am proud of is that I am a true Class-A
>> Radio Amateur.
>>
>> Incidentally, as a British pensioner, my annual licence is free. When
>> requested I just have to confirm I am still in circulation. Same
>> applies to riding on buses when mobile or not mobile, sober or not
>> sober.
>>

>> Arn't you American Amateurs envious?
>> ----
>> Reg, G4FGQ.
>
> Not the least little bit. All our renewals are free regardless of age or
> work status except for those who elected to get a vanity call sign of
> their own choosing instead of sticking with an assigned call.
>
> Dee D. Flint, N8UZE
>

4243. Re: Azimuthal maps & antenna Patterns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 08:16:44 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <4dlbNsBsxa$CFwN$@b-howie.demon.co.uk>
Source record: 71911

In message <1123763405_2701@spool6-east.superfeed.net>, Cecil Moore
<w5dxp@hotmail.com> writes
>Marc Delporte wrote:
>> By tracing the directional pattern of the antenna system on a sheet
>>of tissue paper, then placing the paper over the azimuthal map,
>> the "coverage" of the antenna will be readily evident.
>> I suppose that in 2005, this could be done with computers !
>> I'm looking for such software ! Any ideas, any experiences ?
>
>The radiation pattern can, of course be obtained from EZNEC.
>Free demo version available at www.eznec.com
>
>The azimuthal map can be obtained from PIZZA.
>Free at www.tonnesoftware.com
>
>These two can be overlaid to obtain the graphic that you
>desire. The latest version of PIZZA is supposed to take the
>output data from EZNEC and plot it centered at a point on
>the earth. I haven't had time to try the new version yet.

Wow. I've just tried this using the .csv output from MMANA and
converting via excel. The output of 4NEC2 works as well. I was able plot
the 4 antennas we used on the UK VHF NFD recently very quickly.

There's a couple of bugs. The locator square seems to be one small
square out and I get a glitch on a couple of the patterns. Otherwise
it's pretty good.

73 Brian GM4DIJ
--
Brian Howie

4244. Re: 4Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 14:29:07 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <uLGdnTk0zrQpnmPfRVn-hw@comcast.com>
Source record: 71912

"Dave Piggin" <d.piggin@zetnet.co.uk> wrote in message
news:313030303837383542FB88F544@zetnet.co.uk...
> Hi All. Any good links for building 4Mtr beams for portable work or
> permanent. TIA Dave.
>
> --
> Amateur Radio Call Sign M1BTI, Located in Manchester England.
> Locator square IO83TK
> Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
> Located at Umist, University Of Manchester Institute For Science And
> Technology
> Share What You Know, Learn What You Dont.

Dave -

4 Meters is not available for amateur radio usage in North America. RSGB would be a logical reference source ... or adopt existing 6 meter or commercial FM broadcast (88 - 108 MHz) designs

A standard 1/2 wave driven element will be approximately 6 feet (or 2 meters) in length.

w9gb

4245. Re: 4Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 17:13:45 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <21MYX2AJpi$CFwPy@b-howie.demon.co.uk>
Source record: 71913

In message <uLGdnTk0zrQpnmPfRVn-hw@comcast.com>, gb
<onw9mapsgb@no.arrl.spam.net> writes
>"Dave Piggin" <d.piggin@zetnet.co.uk> wrote in message
>news:313030303837383542FB88F544@zetnet.co.uk...
>> Hi All. Any good links for building 4Mtr beams for portable work or
>> permanent. TIA Dave.
>>
>> --
>> Amateur Radio Call Sign M1BTI, Located in Manchester England.
>> Locator square IO83TK
>> Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
>> Located at Umist, University Of Manchester Institute For Science And
>> Technology
>> Share What You Know, Learn What You Dont.
>
>Dave -
>
>4 Meters is not available for amateur radio usage in North America. RSGB
>would be a logical reference source ... or adopt existing 6 meter or
>commercial FM broadcast (88 - 108 MHz) designs
>
>A standard 1/2 wave driven element will be approximately 6 feet (or 2
>meters) in length.

Uhm -rec.radio.amateur.antenna is a world-wide newsgroup

I find RSGB antenna designs to be disappointing. FM broadcast antennas
are too broad band. There is more mileage in scaling 6m designs, but you
can do your own better optimised design for 4m since it is only 500KHz
wide. I've an 11 element on a 15m boom -but its bandwidth is only
200KHz.

There is a good design here with construction details.
http://www.g1ogy.com/G4ZTR/4Mbeam/G4ZTR4mbeam.html

There are others if you search.

73 Brian GM4DIJ

--
Brian Howie

4246. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 18:50:03 UTC
From: richardharrison@webtv.net
Message-ID: <19367-42FE40DB-199@storefull-3251.bay.webtv.net>
Source record: 71914

Cecil, W5DXP wrote:
"Net current doesn`t flow."

I`m inclined to agree, but at first current flows with a volts to amps ratio rqual to the Zo of the line until a reflection returns to the connection point of the stub. Then the total phase rotation within the stub has reached 360-degrees. The complete reflection supplies a reflected voltage wqual to the incident voltage. There is no difference of potential or phase to evoke current. It`s the equivalent of a very high impedance. Almost no more current is motivated to flow, once the steady-state condition is reached.

Alexander Wing wrote on page 29 of "Transmission Lines, Antennas, and Wave Guides":
"Suppression of Even Harmonics.- An application of a short-circuited quarter-wavelength line is to suppress any unwanted even harmonics in the output of a radio transmitter. A short-circuited one-quarter wavelength long at the desired output frequency may be connected across the output terminals or across the antenna feeder at any point without placing much load on the transmitter at the fundamental or desired output frequency, since at this frequency such a section has an impedance ideally infinite, actually about 400,000 ohms."

How much current flows into 400.000 ohms?

Best regards, Richard Harrison, KB5WZI

4247. Re: Feeding ladder line question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 20:27:36 UTC
From: jim2885@earthlink.net
Message-ID: <cnlsf1l2rvpnqitnmlvec3bs7ku6mq0jqo@4ax.com>
Source record: 71915

Just because your feedline is 450 ohm doesn't mean that the antenna
impedance is 450. A center fed zepp is a high impedance feed,
probably above 1000 ohms. The reason for using open wire is to
minimize loss in the line, open wire is very low loss.

Also, depending on the length of the open wire, it could act as a
transformer, changing the impedance.

Feeding it into a 4:1 balun will drop the impedance but if the balun
is feeding a 1600 ohm load, the other side of the balun will see 400
ohms, certainly not a match for coax, or for your rig.

73, Ken WA8JXM

On Fri, 05 Aug 2005 23:00:23 GMT, S.Fritts <w4sef@att.net> wrote:

>I dont think my post got posted...I want to use two seperate antennas
>such as center fed zepp types.....can I feed each antenna with ladder
>line such as 450 ohm and then teminate each ladder line to two 4:1
>baluns (one balun per line) and use 50 ohm coax to the shack? In
>other words, one balun per feed line the have 2 coaxes running in to
>the shack with an antenna switch.
>
>Thanks
>
>Steve
>W4SEF

4248. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 21:26:04 UTC
From: Big Endian <nospam@nospam.com>
Message-ID: <nospam-827928.16260513082005@news-rdr-03.rdc-kc.rr.com>
Source record: 71916
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

In article <1123817805_9029@spool6-east.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

>
> Real hams do DSP filtering at IF.

I thought you were an antenna guy.

4249. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 21:39:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123969322_1319@spool6-east.superfeed.net>
Source record: 71917
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Big Endian wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Real hams do DSP filtering at IF.
>
> I thought you were an antenna guy.

Believe it or not, I have at least two areas
of interest. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4250. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 21:57:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123970428_1369@spool6-east.superfeed.net>
Source record: 71918

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Net current doesn`t flow."
>
> I`m inclined to agree, but at first current flows with a volts to amps
> ratio rqual to the Zo of the line until a reflection returns to the
> connection point of the stub. Then the total phase rotation within the
> stub has reached 360-degrees. The complete reflection supplies a
> reflected voltage wqual to the incident voltage. There is no difference
> of potential or phase to evoke current. It`s the equivalent of a very
> high impedance. Almost no more current is motivated to flow, once the
> steady-state condition is reached.

Richard, some people use that exact same argument to try to prove
that no current is flowing in the middle of a transmission line
where forward power equals reflected power. The strange thing is
that the current 1/4WL away from that zero net current point is
sky high.

If the current 1/4WL away from your above source output terminals
is indeed sky high, it is because the forward and reflected currents
are in phase at that point which means they are 180 degrees out of
phase at the source output which means they are both still there.
If the net current is zero, all it means is that |Ifor|-|Iref| = 0.
It tells us nothing about the magnitudes of Ifor and Iref.

Trying to treat a distributed network as a lumped circuit can lead
to mistakes.

> Alexander Wing wrote on page 29 of "Transmission Lines, Antennas, and
> Wave Guides":
> "Suppression of Even Harmonics.- An application of a short-circuited
> quarter-wavelength line is to suppress any unwanted even harmonics in
> the output of a radio transmitter. A short-circuited one-quarter
> wavelength long at the desired output frequency may be connected across
> the output terminals or across the antenna feeder at any point without
> placing much load on the transmitter at the fundamental or desired
> output frequency, since at this frequency such a section has an
> impedance ideally infinite, actually about 400,000 ohms."
>
> How much current flows into 400.000 ohms?

How much current flows in the shorted end of the stub? Let's say we
measure it at 2 amps. Where does that current come from?

The 400,000 ohms is (Vfor+Vref)/(Ifor+Iref) at the mouth of the stub
where V's and I's are phasors. Knowing that (Ifor+Iref) is a small
value doesn't tell us anything about the magnitudes of Ifor and Iref
except that they are nearly equal as is always the case for a
low-loss stub. Knowing (Inet=|Ifor|-|Iref|) is small doesn't tell us
a thing about the magnitude of (|Ifor|+|Iref|) that exists at the
shorted end of the stub. Does that make sense?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4251. You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 22:00:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b2f40$42fe6d97$97d55c26$18541@ALLTEL.NET>
Source record: 71919

You might be an old time if you can answer the following, with out diving into your library.

Which of the following is NOT a rectifier?
a. 3B24
b. 80
c. 3C24
d. 6H6

Steel wool was once touted as a good material to make which of the following?

a. Choke Balun
b. AF shielding
c. Linear capacitors
d. Radials for short virticals

Feel free to add your own favorite...

4252. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 22:14:53 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <3irsf1h4716dgkafn1jbk26je4v2fkuvh8@4ax.com>
Source record: 71920

On Sat, 13 Aug 2005 18:00:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>You might be an old time if you can answer the following, with out diving
>into your library.
>
>Which of the following is NOT a rectifier?
>a. 3B24
>b. 80
>c. 3C24
>d. 6H6
>
>Steel wool was once touted as a good material to make which of the
>following?
>
>a. Choke Balun
>b. AF shielding
>c. Linear capacitors
>d. Radials for short virticals
>
>Feel free to add your own favorite...
>

Good ones, Fred, 3B24 and 3C24 are not rectifiers.

However, some moron claimed in QST that steel wool was just as good as ferrite for making choke baluns, but I've forgotten who the lunkhead at the League was who believed him, and allowed stupid idea to be published.

I complained to the League editors, who unbelieveably said 'Prove It'. So I bought some steel wool and made two back to back baluns with it and made measurements of common mode currents. The measurements proved that the steel wool had absolutely no choking effect.

I reported the results of the measurements to the editors at the League, but I can't remember whether they did anything about refuting the original incorrect material. Perhaps your memory is better than mine on this issue.

Walt, W2DU

4253. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 23:44:34 UTC
From: Big Endian <nospam@nospam.com>
Message-ID: <nospam-E6A651.18443613082005@news-rdr-03.rdc-kc.rr.com>
Source record: 71921
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

In article <1123969322_1319@spool6-east.superfeed.net>,
Cecil Moore <w5dxp@hotmail.com> wrote:

> Big Endian wrote:
>
> > Cecil Moore <w5dxp@hotmail.com> wrote:
> >>Real hams do DSP filtering at IF.
> > >
> > > I thought you were an antenna guy.
>
> Believe it or not, I have at least two areas
> of interest. :-)

I have more than one also, LOL.

I like your posts on antenna NG. Hang in there.

4254. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-13 23:58:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <458a7$42fe8952$97d55c26$21961@ALLTEL.NET>
Source record: 71922

Close Walt, only the 3C24 was not a rectifier. Sit back, light up the pipe, and remember the purple glow of the 3B24. You were right on about the steel wool. I was wondering how many would remember the dufus that was trying to tell us that steel wool and a paper towel roll was as good as ferrites.

I also wrote a letter to editor. I was a bit more sarcastic requesting the B/H curves of steel wool.

"Walter Maxwell" <walt@w2du.com> wrote in message news:3irsf1h4716dgkafn1jbk26je4v2fkuvh8@4ax.com...
> On Sat, 13 Aug 2005 18:00:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >You might be an old time if you can answer the following, with out diving
> >into your library.
> >
> >Which of the following is NOT a rectifier?
> >a. 3B24
> >b. 80
> >c. 3C24
> >d. 6H6
> >
> >Steel wool was once touted as a good material to make which of the
> >following?
> >
> >a. Choke Balun
> >b. AF shielding
> >c. Linear capacitors
> >d. Radials for short virticals
> >
> >Feel free to add your own favorite...
> >
>
> Good ones, Fred, 3B24 and 3C24 are not rectifiers.
>
> However, some moron claimed in QST that steel wool was just as good as
> ferrite for making choke baluns, but I've forgotten who the lunkhead
> at the League was who believed him, and allowed stupid idea to be
> published.
>
> I complained to the League editors, who unbelieveably said 'Prove It'.
> So I bought some steel wool and made two back to back baluns with it
> and made measurements of common mode currents. The measurements proved
> that the steel wool had absolutely no choking effect.
>

> I reported the results of the measurements to the editors at the
> League, but I can't remember whether they did anything about refuting
> the original incorrect material. Perhaps your memory is better than
> mine on this issue.
>
> Walt, W2DU

4255. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 00:17:45 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11ft3d9222qbua3@corp.supernews.com>
Source record: 71923

Fascinating.
Steel wool is mostly empty space.
73
H.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:458a7$42fe8952$97d55c26$21961@ALLTEL.NET...
> Close Walt, only the 3C24 was not a rectifier. Sit back, light up the
> pipe,
> and remember the purple glow of the 3B24. You were right on about the
> steel
> wool. I was wondering how many would remember the dufus that was trying to
> tell us that steel wool and a paper towel roll was as good as ferrites.
>
> I also wrote a letter to editor. I was a bit more sarcastic requesting the
> B/H curves of steel wool.
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:3irsf1h4716dgkafn1jbk26je4v2fkuvh8@4ax.com...
>> On Sat, 13 Aug 2005 18:00:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >You might be an old time if you can answer the following, with out
>> >diving
>> >into your library.
>> >
>> >Which of the following is NOT a rectifier?
>> >a. 3B24
>> >b. 80
>> >c. 3C24
>> >d. 6H6
>> >
>> >Steel wool was once touted as a good material to make which of the
>> >following?
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>> >a. Choke Balun
>> >b. AF shielding
>> >c. Linear capacitors
>> >d. Radials for short virticals
>> >
>> >Feel free to add your own favorite...
>> >
>>
>> Good ones, Fred, 3B24 and 3C24 are not rectifiers.

>>
>> However, some moron claimed in QST that steel wool was just as good as
>> ferrite for making choke baluns, but I've forgotten who the lunkhead
>> at the League was who believed him, and allowed stupid idea to be
>> published.
>>
>> I complained to the League editors, who unbelieveably said 'Prove It'.
>> So I bought some steel wool and made two back to back baluns with it
>> and made measurements of common mode currents. The measurements proved
>> that the steel wool had absolutely no choking effect.
>>
>> I reported the results of the measurements to the editors at the
>> League, but I can't remember whether they did anything about refuting
>> the original incorrect material. Perhaps your memory is better than
>> mine on this issue.
>>
>> Walt, W2DU
>
>

4256. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 00:25:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ft3r2smgk0jb2@corp.supernews.com>
Source record: 71924

Fred W4JLE wrote:
> . . .
> Feel free to add your own favorite...

How often should you clean your screen grids?
a. Daily
b. Weekly
c. Monthly
d. Any time a grid leak is detected

4257. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 00:38:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ft4jm3hlk0b38@corp.supernews.com>
Source record: 71925

Walter Maxwell wrote:
> . . .
> However, some moron claimed in QST that steel wool was just as good as
> ferrite for making choke baluns, but I've forgotten who the lunkhead
> at the League was who believed him, and allowed stupid idea to be
> published.
>
> I complained to the League editors, who unbelieveably said 'Prove It'.
> So I bought some steel wool and made two back to back baluns with it
> and made measurements of common mode currents. The measurements proved
> that the steel wool had absolutely no choking effect.
>
> I reported the results of the measurements to the editors at the
> League, but I can't remember whether they did anything about refuting
> the original incorrect material. Perhaps your memory is better than
> mine on this issue.
>
> Walt, W2DU

The results of your measurements were published in "Hints & Kinks" in September 1993 QST. According to the editorial comment accompanying it, you were prompted to make the measurements by Tom Rauch, W8JI, who had done some measurements which indicated that the steel wool balun was ineffective. The Hints & Kinks editor at the time, who had accepted both the original contribution by Curt Wilson, W0KKQ and yours, was Dave Newkirk, WJ1Z. Anyone interested in learning more about it should read the Hints & Kinks submissions and note Dave's added editiorial comments.

Roy Lewallen, W7EL

4258. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 00:44:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ot4tf1lm6hjlfgovo0l2qgu79lecclmlsu@4ax.com>
Source record: 71826

On Sat, 13 Aug 2005 16:57:52 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>some people use that exact same argument to try to prove
>that no current is flowing in the middle of a transmission line
Or uncanceled reflections brighter than the sun are black.

4259. Congrats to K6MHE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 00:55:25 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ag5tf1tht2ukm9j9acca5medf8e7vo40vv@4ax.com>
Source record: 71827

Our own Danny Richardson has the lead article in the September issue
of QST.

Nicely done.

4260. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 00:56:07 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <29df1$42fe96ae$97d55c26$31236@ALLTEL.NET>
Source record: 71828

I believe the "steel wool" balun showed up in one of the handbooks as well.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ft4jm3hlk0b38@corp.supernews.com...
> Walter Maxwell wrote:
> > . . .
> > However, some moron claimed in QST that steel wool was just as good as
> > ferrite for making choke baluns, but I've forgotten who the lunkhead
> > at the League was who believed him, and allowed stupid idea to be
> > published.
> >
> > I complained to the League editors, who unbelieveably said 'Prove It'.
> > So I bought some steel wool and made two back to back baluns with it
> > and made measurements of common mode currents. The measurements proved
> > that the steel wool had absolutely no choking effect.
> >
> > I reported the results of the measurements to the editors at the
> > League, but I can't remember whether they did anything about refuting
> > the original incorrect material. Perhaps your memory is better than
> > mine on this issue.
> >
> > Walt, W2DU
>
> The results of your measurements were published in "Hints & Kinks" in
> September 1993 QST. According to the editorial comment accompanying it,
> you were prompted to make the measurements by Tom Rauch, W8JI, who had
> done some measurements which indicated that the steel wool balun was
> ineffective. The Hints & Kinks editor at the time, who had accepted both
> the original contribution by Curt Wilson, W0KKQ and yours, was Dave
> Newkirk, WJ1Z. Anyone interested in learning more about it should read
> the Hints & Kinks submissions and note Dave's added editiorial comments.
>
> Roy Lewallen, W7EL

4261. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 01:09:01 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <h06tf1luccthq7fkfsjko4ug6823ama9bo@4ax.com>
Source record: 71829

On Sat, 13 Aug 2005 17:38:12 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Walter Maxwell wrote:
>> . . .
>> However, some moron claimed in QST that steel wool was just as good as
>> ferrite for making choke baluns, but I've forgotten who the lunkhead
>> at the League was who believed him, and allowed stupid idea to be
>> published.
>>
>> I complained to the League editors, who unbelieveably said 'Prove It'.
>> So I bought some steel wool and made two back to back baluns with it
>> and made measurements of common mode currents. The measurements proved
>> that the steel wool had absolutely no choking effect.
>>
>> I reported the results of the measurements to the editors at the
>> League, but I can't remember whether they did anything about refuting
>> the original incorrect material. Perhaps your memory is better than
>> mine on this issue.
>>
>> Walt, W2DU
>
>The results of your measurements were published in "Hints & Kinks" in
>September 1993 QST. According to the editorial comment accompanying it,
>you were prompted to make the measurements by Tom Rauch, W8JI, who had
>done some measurements which indicated that the steel wool balun was
>ineffective. The Hints & Kinks editor at the time, who had accepted both
>the original contribution by Curt Wilson, W0KKQ and yours, was Dave
>Newkirk, WJ1Z. Anyone interested in learning more about it should read
>the Hints & Kinks submissions and note Dave's added editiorial comments.

One legitimate ;) use for steel wool was what we used it for as kids.

When the cops cited us with a repair order for a too loud exhaust
system on our hot rods, we would stuff steel wool up the pipe and
secure it with a rusty nail in cross-drilled holes.

We would then find a handy cop and ask him to sign off that we had
fixed the problem. He would usually ask us to rev up the engine and
we would hope like hell that the steel wool didn't come flying out at
the wrong time. I think most cops were on to this but they played
along.

4262. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 01:52:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ft8uft6mbg6c8@corp.supernews.com>
Source record: 71830

Wes Stewart wrote:
>
> One legitimate ;) use for steel wool was what we used it for as kids.
>
> When the cops cited us with a repair order for a too loud exhaust
> system on our hot rods, we would stuff steel wool up the pipe and
> secure it with a rusty nail in cross-drilled holes.
>
> We would then find a handy cop and ask him to sign off that we had
> fixed the problem. He would usually ask us to rev up the engine and
> we would hope like hell that the steel wool didn't come flying out at
> the wrong time. I think most cops were on to this but they played
> along.

Here's a ham-radio related use. I've got a bunch of it stuffed into the ends of the buried PVC pipes carrying my feedlines into the back yard, in an attempt to keep the rodents from using it as a highway. Seems to be working so far. . .

Roy Lewallen, W7EL

4263. Re: 2005 Silverado truck radio install questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 02:42:16 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <unbtf1hkuke13ld2hircrmfrml6qo0d29e@4ax.com>
Source record: 71831

On Thu, 11 Aug 2005 16:52:59 GMT, "Michael Herron"
<hurricane145@worldnet.att.net> wrote:

>Anyone install a 2/440 rig in a 2005 Silverado? I will be soon and was just
>wondering if anyone had been through it and had any advice that may help.
>Where you can route power cables or coax throught the firewall. Perhaps a
>good place you can pick up power form under the dash instead of going to the
>battery. If I decide to roof mount an antenna, what is the best way to make
>the hole for an NMO mount in the roof?

Well, you can roll your own, but the easiest way is to just go to a
shop that installs business radios, and have them make the hole and
run a piece of coax to wherever you want it -- they do it every day.

bob
k5qwg

> Any experience with HF in the 2005
>Silverado? Noise problems? Any RFI getting into any components of the trucks
>electronics?
>I have an IC-706 and a screwdriver antenna I may want to use in it. I had no
>problems in my old 1990 truck but not much electronics in it compared to the
>2005 (the employee discount GOT me)!! Thanks, Mike K7MH.
>

4264. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 02:45:42 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <eibtf1ttq1mudcaiga3cj96gefaelrkpfd@4ax.com>
Source record: 71832

On Sat, 13 Aug 2005 18:52:14 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

[snip]
>
>Here's a ham-radio related use. I've got a bunch of it stuffed into the
>ends of the buried PVC pipes carrying my feedlines into the back yard,
>in an attempt to keep the rodents from using it as a highway. Seems to
>be working so far. . .
>
>Roy Lewallen, W7EL

Down here in the desert the pack rats would just say, "Thank you very
much, do you have any more?"

When my wife's office at Hughes had a problem with rodents coming
through an A/C receptacle in an exterior wall the plant maintenance
guys used either copper or bronze wool. Seems to poison them.

My problem isn't rodents in the house, it's scorpions. Killed two of
the things just last night. I'm remodeling a bathroom, where most of
them show up. I told my wife I think I'll install some UV lighting so
I can see them easier. (They fluoresce under UV.)

4265. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 02:49:39 UTC
From: dplatt@radagast.org
Message-ID: <11ftca35810psc4@corp.supernews.com>
Source record: 71833

>How often should you clean your screen grids?
>a. Daily
>b. Weekly
>c. Monthly
>d. Any time a grid leak is detected

I resist the suggestion that answer [d] is correct.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4266. Re: Removal of Morse Code from Amateur License Requirements...Vanity call wheeee

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 02:50:57 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <42FEB19E.7AAABA57@rickfrazier.com>
Source record: 71834
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Though this appeared in the Rec.radio.equipment newsgroup and is being broadcast to several others that may or may not really be appropriate for this diversion from the original subject, I can't help but responding....

When it comes to a vanity call, the relative pittance we are charged for a call that makes sense to us (whether because of an old call in another location, or because it's easier to transmit in morse, or even fits some other plan we may have) is worth the money in my opinion, and I imagine to anyone else that took a vanity call.

For myself, I chose my current call because the people at FCC didn't give me a call in my area on an upgrade from Tech to Extra, despite an address update way prior to the examinations. Somehow, they managed to show correct postal box address and city, but my state as California (where I used to live), yet the zip code was correct, so our "wonderful" postal service forwarded the license upgrade to my PObox, yet they gave me a California call....
Moving to a vanity call that indicated Hawaii was a no-brainer for me, and I'd be willing to pay 20 bucks a year to keep it, so the increase in costs still make sense to me.... I know I may get a lot of flak from some people because of this, but it's all what it's worth in my mind.... It is a hobby, and thing that are outside "standard assignment" can be expected to cost a bit more. In my mind, it would certainly be worth less than 2 bucks a month to have a call that makes sense to me in place of one that is from an area where I no longer live.

Thanks
--Rick AH7H

Mr Fed UP wrote:

> Well for myself I wouldn't have picked the spaghetti soup group of letters I
> had to
> start with. But after retiring I thought I might as well get a little
> vain... That's all
> that left after a while. he he.... So for a whopping $20 I got a vanity call
> after
> moving to a new call area. I thought in my second life after heart surgery,
> back surgery,.ect. I might as well have a little fun. After all isn't that
> what a
> hobby is for? I'll get 10 years out of my new call but I can't get that
> far on $20 worth of gas these days. eh. Now all I need is about $20K
> for that new $13,000 ham radio and a tower and antenna ha ha.
>
> What ever is fun is ok. Even if it means dumping a 25 year old call sign.

> Let me see Ham radio so varied what next.
> Been there done that.... DXCC... RTTY... OSCAR.,.. PACKET...
> oh and of coarse RAG CHEW codey slow no problem getting in the
> time for that award. Contest... Special events... Homebrew...
> and a cold brew...
>
> Oh BTW it isn't the one with the most toys... It's the one who gets to
> play the most with their toys. Have fun everyone and don't take
> it too seriously or you get an ulcer and high blood pressure.
>
> Cheers 73 ol' WB9SMX new K4TWO when the papers arrive. ;-)
>
> "Dee Flint" <deeflint01@comcast.net> wrote in message
> news:iN2dnaHNlbId2GDfRVn-vw@comcast.com...
> >
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> >>
> >> I do wish people would not refer to me as a 'ham'.
> >>
> >> Amongst the very few things I am proud of is that I am a true Class-A
> >> Radio Amateur.
> >>
> >> Incidentally, as a British pensioner, my annual licence is free. When
> >> requested I just have to confirm I am still in circulation. Same
> >> applies to riding on buses when mobile or not mobile, sober or not
> >> sober.
> >>
> >> Arn't you American Amateurs envious?
> >> ----
> >> Reg, G4FGQ.
> >
> > Not the least little bit. All our renewals are free regardless of age or
> > work status except for those who elected to get a vanity call sign of
> > their own choosing instead of sticking with an assigned call.
> >
> > Dee D. Flint, N8UZE
> >

4267. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 03:34:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123990633_1749@spool6-east.superfeed.net>
Source record: 71835

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>some people use that exact same argument to try to prove
>>that no current is flowing in the middle of a transmission line
>
> Or uncanceled reflections brighter than the sun are black.

In a lossless system sourced by monochromatic
coherent light, if the 1st medium is air and if the
index of refraction of the 3rd medium is the square of
the index of refraction of the 1/4WL 2nd medium, then
all reflections are canceled in the 1st medium. That's
one of the rules of optics for non-reflective coatings.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4268. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 03:51:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1123991653_1767@spool6-east.superfeed.net>
Source record: 71836

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Net current doesn`t flow."
>
> How much current flows into 400.000 ohms?

Let's take a look at a simplified system. The SGCL source is
a signal generator equipped with a circulator and load resistor.
Each segment in the following 50 ohm lossless coax is 1/4WL long.

```
|--------1.25WL 50 ohm coax-------|
200W SGCL------A------B------C------D------short
```

The signal generator is sourcing 200W and the circulator load
resistor is dissipating 200W.

What is the net current at the short and at A and C?

What is the net voltage at D, B, and the source?

What is the forward power and reflected power?

What is the net current at the signal generator output?

What magnitude of current is the signal generator sourcing?

What magnitude of current is flowing through the circulator
load resistor?

What is the phase difference between the forward current and
reflected current?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4269. Re: 2005 Silverado truck radio install questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 04:16:36 UTC
From: Michael Herron <hurricane145@worldnet.att.net>
Message-ID: <EAzLe.602950$cg1.406805@bgtnsc04-news.ops.worldnet.att.net>
Source record: 71837

Probably not a bad idea really! On the previous truck I had, It was a lot of
messing around to figure out where the hole should be made and I did a so so
job of the hole with of all things a paddle bit. The cable did route easily
though. That might not be the case this time! Since they do it all the time
they would know just where the best place to make the hole is.
"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:unbtf1hkuke13ld2hircrmfrml6qo0d29e@4ax.com...
> On Thu, 11 Aug 2005 16:52:59 GMT, "Michael Herron"
> <hurricane145@worldnet.att.net> wrote:
>
>>Anyone install a 2/440 rig in a 2005 Silverado? I will be soon and was
>>just
>>wondering if anyone had been through it and had any advice that may help.
>>Where you can route power cables or coax throught the firewall. Perhaps a
>>good place you can pick up power form under the dash instead of going to
>>the
>>battery. If I decide to roof mount an antenna, what is the best way to
>>make
>>the hole for an NMO mount in the roof?
>
> Well, you can roll your own, but the easiest way is to just go to a
> shop that installs business radios, and have them make the hole and
> run a piece of coax to wherever you want it -- they do it every day.
>
> bob
> k5qwg
>
>> Any experience with HF in the 2005
>>Silverado? Noise problems? Any RFI getting into any components of the
>>trucks
>>electronics?
>>I have an IC-706 and a screwdriver antenna I may want to use in it. I had
>>no
>>problems in my old 1990 truck but not much electronics in it compared to
>>the
>>2005 (the employee discount GOT me)!! Thanks, Mike K7MH.
>>
>

4270. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 04:22:21 UTC
From: Michael Herron <hurricane145@worldnet.att.net>
Message-ID: <1GzLe.602976$cg1.523293@bgtnsc04-news.ops.worldnet.att.net>
Source record: 71838

What or how do you intend to use it? Portable mobile or? If use is when portable from a mobile situation, a decent screwdriver antenna will outperform it bigtime!!
"Yves Dussault" <yvesNOdussault@videotron.ca> wrote in message news:kmf9f15soctesl0eacofcm5ojhudv5f9r0@4ax.com...
> I'm thinking of getting a Buddipole antenna.
> I would loke comments on that antenna.
> Thanks.
> VE2ATD

4271. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 05:01:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6vitf1llhgcbkqd80114nte1uq6duein94@4ax.com>
Source record: 71839

On Sat, 13 Aug 2005 22:34:38 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>then all reflections are canceled in the 1st medium
"all," of course, if you discard precision to force the theory to fit
the expectations.
About as respectable as E = M ï¿½ Cï¿½ ï¿½3dB

4272. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 05:31:02 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <qGALe.1696$Us5.1459@fed1read02>
Source record: 71840

"H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
news:11ft3d9222qbua3@corp.supernews.com...
> Fascinating.
> Steel wool is mostly empty space.
> 73
> H.

Even more empty after the first spark!
--
Ed
WB6WSN
El Cajon, CA USA

4273. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 05:34:59 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <7KALe.1697$Us5.214@fed1read02>
Source record: 71841

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:eibtf1ttq1mudcaiga3cj96gefaelrkpfd@4ax.com...
> On Sat, 13 Aug 2005 18:52:14 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> [snip]
>>
>>Here's a ham-radio related use. I've got a bunch of it stuffed into the
>>ends of the buried PVC pipes carrying my feedlines into the back yard,
>>in an attempt to keep the rodents from using it as a highway. Seems to
>>be working so far. . .
>>
>>Roy Lewallen, W7EL
>
> Down here in the desert the pack rats would just say, "Thank you very
> much, do you have any more?"
>
> When my wife's office at Hughes had a problem with rodents coming
> through an A/C receptacle in an exterior wall the plant maintenance
> guys used either copper or bronze wool. Seems to poison them.
>
> My problem isn't rodents in the house, it's scorpions. Killed two of
> the things just last night. I'm remodeling a bathroom, where most of
> them show up. I told my wife I think I'll install some UV lighting so
> I can see them easier. (They fluoresce under UV.)

Wes, what's the preferred scorpion killing technique; you use a hammer or
what?

--
Ed
WB6WSN
El Cajon, CA USA

4274. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 07:37:27 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <XwCLe.7563$DV3.6547@newssvr17.news.prodigy.com>
Source record: 71842

Ed Price wrote:
> "Wes Stewart" <n7ws_@*yahoo.com> wrote in message
> news:eibtf1ttq1mudcaiga3cj96gefaelrkpfd@4ax.com...
>
>>On Sat, 13 Aug 2005 18:52:14 -0700, Roy Lewallen <w7el@eznec.com>
>>wrote:
>>
>>[snip]
>>
>>>Here's a ham-radio related use. I've got a bunch of it stuffed into the
>>>ends of the buried PVC pipes carrying my feedlines into the back yard,
>>>in an attempt to keep the rodents from using it as a highway. Seems to
>>>be working so far. . .
>>>
>>>Roy Lewallen, W7EL

Better than just steel wool- is SOS pads- had Deer Mice (carriers of hantavirus) running between buildings, in wire ducts- plugged with SOS pads, stopped them. Also had professional folks, that used a gooey substance, that (according to them !) tastes bad to rodents for treating wood, so they didn't like to chew thru walls. Apparently the bad taste of the soap, and the goo, along with the steel wool does a good job of slowing them down-- It is a bit disconcerting to open the control head of a generator, and see 8-9 pairs of eyeballs stareing back at you! Jim NN7K

4275. New Program. L-match Networks.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 09:02:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddn1c3$ne1$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71843

Occasionally it may be useful to deduce the value of the terminating impedance of an L-match network when only the values of the coil (uH) and capacitor (pF) and the frequency are known.

Program L_NETWK does exactly that.

The terminating impedance is often the input impedance of the transmission line leading to an antenna when an impedance measuring device is not available. Whereas it is possible to estimate the values of the coil and capacitor settings from a visual examination. The L and C components having been set by using the SWR meter or TLI.

The program also assists with assessing the range of terminating impedances which can be accomodated by a given L-tuner. Without such assistance a considerable strain is placed on an ordinary person's imagination.

Download in a few seconds program L_NETWK from the website below and run immediately. No unzipping inconvenience.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

4276. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 12:23:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124022392_3277@spool6-east.superfeed.net>
Source record: 71844

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>then all reflections are canceled in the 1st medium
>
> "all," of course, if you discard precision to force the theory to fit
> the expectations.
> About as respectable as E = M ï¿½ Cï¿½ ï¿½3dB

Given an ideal system with carefully selected boundary conditions,
all reflections are canceled. That is a concept, not something
that can be achieved in reality. Your height and weight on your
driver's license is not 100% accurate either but it is good
enough for government work.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4277. Beams FS

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 13:56:46 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <d9juf112slm7q22b5c9ne6vuv26bihi271@4ax.com>
Source record: 71845

1. Mosley Pro-57-A 7 element 5 Band Beam w/ 24-2" foot boom. Better than 9 dBd on 10 meters, greater than 8.3 dBd gain on 12, 15, 17 & 20 meters. Rated a 5 out of 10, needs repair to 3/8" phasing lines. Elements & boom marked for easy assembly. The antenna weights 90 lbs.* For PICK UP in Chesapeake, Virginia, along Rt. 17 just below Portsmouth. $50.00

2. Commercial Made Heavy Duty 8 element Vertical Beam converted to 440 MHz, average SWR across 70 centimeter band is below 1.3: 1. The antenna is rated an 8 out of 10.
Also for PICK UP in Chesapeake, Va. $35.00
or Best Offer .

The possibility exists that the antennas can be taken to the Shelby Hamfest if an interested party commits to purchase. . Gasoline ain't Cheap, now!

E-MAIL to K4WYS.COX.NET OR Telephone (757) 487-0357

* Beam is worth $36.00 as scrap aluminum

4278. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 14:09:55 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <QgILe.578$uO2.273@fed1read07>
Source record: 71846

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11ftca35810psc4@corp.supernews.com...
> >How often should you clean your screen grids?
>>a. Daily
>>b. Weekly
>>c. Monthly
>>d. Any time a grid leak is detected

When it gets clogged with electrons
--
CL -- I doubt, therefore I might be !

4279. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 14:17:38 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <2olLe.581$uO2.549@fed1read07>
Source record: 71847

Regarding steel wool, I recall an old old radio catalog selling an antenna cleaning kit to shine up your antenna wire -- claims it improved reception !

Don't recall if it was steel wool or a fine sandpaper

But when you put up a brand new shiny antenna -- does it seem to work better, just like your car runs better after a wash and wax job (;-)

--
CL -- I doubt, therefore I might be !

4280. Re: The Extreme Failure of Poor Concepts in Discussing Thin Layer ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 14:54:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c3muf1hcbudrt1oo0thdjlp1kuhsq5htv8@4ax.com>
Source record: 71848

On Sun, 14 Aug 2005 07:23:56 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Your height and weight
ï¿½3dB? All the expectation of a Dr. Atkins diet.

4281. WTB: Tower DFW area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 15:05:48 UTC
From: W5GT <test@yahoo.com>
Message-ID: <d5JLe.4130$rc6.1487@fe03.lga>
Source record: 71849

Looking for a tower in the Dallas Ft Worth area. About 40' free standing is all I need. Will negotiate for included rotor if available.

Dave - W5GT
North Richland Hills, Texas

4282. Re: Sony kitchen radio antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 15:59:53 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndfuqjp.236j.bit-bucket@shell.config.com>
Source record: 71851

On Sun, 14 Aug 2005 10:35:18 -0700, Michael wrote:

> It is a shame that sensitive am radios are so rare these days.

Well, they're not. But you have to dig them out of the dashboards
of automobiles and rig up 12VDC power supplies for'em.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

4283. Re: DP-GH62 Mod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 16:02:53 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndfuqpd.236j.bit-bucket@shell.config.com>
Source record: 71852

On Sun, 14 Aug 2005 14:59:00 GMT, Justï¿½n Kï¿½se wrote:
> Does anyone know the mod to increase power acceptance of the Diamond
> DP-GH62 six meter antenna from 200w to 500w?

Sure, but it involves locating two 250 Watt, non-inductive resistors --
one of 25 ohm and one of 50 ohm. Hard to find. Pricey.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

4284. Re: DP-GH62 Mod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 16:27:44 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <EXOCCD9N38579.0192592593@reece.net.au>
Source record: 71853

You could use the resistors.
But if you still want the antenna to preform correctly, do the
following.

For 500 watt (FM only; 52-54 MHz) capability,
contact Diamond Customer Service at (760) 744-0900 for further
information.

4285. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 16:46:10 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <phsuf11o981mfrablgg31rv4l3j9ub54ao@4ax.com>
Source record: 71854

Interesting, Fred, I wasn't aware that the 3B24 was a gas-filled rectifier. However, I used the 80, the 81 (a half-wave rectifier with greater current capability than the 80), the 83 (a full-wave mercury vapor rectifier) The 5Y3 was a later version of the 80, with octal pin basing. I also used a whole bunch of 866's before SSB came along. They powered a 203-A in one of my early rigs, a 250-TH in a later rig in 1935, and a pair of HK-54's in another in 1937. (Or were they HK-354's, I can't remember, yeah, 354's)

On Sat, 13 Aug 2005 19:58:14 -0400, "Fred W4JLE" <w4jle@w4jle.com> wrote:

>Close Walt, only the 3C24 was not a rectifier. Sit back, light up the pipe,
>and remember the purple glow of the 3B24. You were right on about the steel
>wool. I was wondering how many would remember the dufus that was trying to
>tell us that steel wool and a paper towel roll was as good as ferrites.
>
>I also wrote a letter to editor. I was a bit more sarcastic requesting the
>B/H curves of steel wool.
>
Do you still have a copy of that letter? I'd like to see a copy if you do.

Walt,W2DU

4286. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 16:47:49 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <cctuf1pkl29ic517rh25i3pio15i215t4g@4ax.com>
Source record: 71855

Thanks, Roy, I had forgetten where the stuff was published.

Walt

On Sat, 13 Aug 2005 17:38:12 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Walter Maxwell wrote:
>> . . .
>> However, some moron claimed in QST that steel wool was just as good as
>> ferrite for making choke baluns, but I've forgotten who the lunkhead
>> at the League was who believed him, and allowed stupid idea to be
>> published.
>>
>> I complained to the League editors, who unbelieveably said 'Prove It'.
>> So I bought some steel wool and made two back to back baluns with it
>> and made measurements of common mode currents. The measurements proved
>> that the steel wool had absolutely no choking effect.
>>
>> I reported the results of the measurements to the editors at the
>> League, but I can't remember whether they did anything about refuting
>> the original incorrect material. Perhaps your memory is better than
>> mine on this issue.
>>
>> Walt, W2DU
>
>The results of your measurements were published in "Hints & Kinks" in
>September 1993 QST. According to the editorial comment accompanying it,
>you were prompted to make the measurements by Tom Rauch, W8JI, who had
>done some measurements which indicated that the steel wool balun was
>ineffective. The Hints & Kinks editor at the time, who had accepted both
>the original contribution by Curt Wilson, W0KKQ and yours, was Dave
>Newkirk, WJ1Z. Anyone interested in learning more about it should read
>the Hints & Kinks submissions and note Dave's added editiorial comments.
>
>Roy Lewallen, W7EL

4287. Re: Congrats to K6MHE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 16:51:18 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <netuf1d3ljspcfa1vn5eafa6b8j24cpjmq@4ax.com>
Source record: 71856

On Sat, 13 Aug 2005 17:55:25 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>Our own Danny Richardson has the lead article in the September issue
>of QST.
>
>Nicely done.

Indeed, Danny !!! Excellent article ! I just received my QST yesterday
PM, and hadn't looked at it until seeing Wes' posting. Your matching
idea is terrific, especially for portable operation. Congrats!

Walt, W2DU

4288. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 16:59:28 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11fuu3or347de48@corp.supernews.com>
Source record: 71857

Caveat Lector wrote:
> Regarding steel wool, I recall an old old radio catalog selling an antenna
> cleaning kit to shine up your antenna wire -- claims it improved reception !
>
> Don't recall if it was steel wool or a fine sandpaper
>
> But when you put up a brand new shiny antenna -- does it seem to work
> better, just like your car runs better after a wash and wax job (;-)
>
Mine always gets wet in the rain that comes immediately after the wash
job. ;^)....

4289. Re: Tower DFW area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 17:05:08 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <bRKLe.58667$Tt6.22151@fe04.lga>
Source record: 71858

My email address is actually w5gt@arrl.net

Dave - W5GT

"W5GT" <test@yahoo.com> wrote in message
news:d5JLe.4130$rc6.1487@fe03.lga...
> Looking for a tower in the Dallas Ft Worth area. About 40' free standing
is
> all I need. Will negotiate for included rotor if available.
>
> Dave - W5GT
> North Richland Hills, Texas
>
>

4290. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 17:18:11 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b975d$42ff7cec$97d55c26$24078@ALLTEL.NET>
Source record: 71859

I can't belive no one has put up the correct answer. When grid leak becomes
a problem, adding a dynatron oscillator, with it's negative resistance
absorbs all the leaked electrons.

New question:

A Homotron is -
a. An electron that has been given a positive charge
b. An electron given a negative charge
c. A queer electron that blows fuses
d. Who knows, it wasn't in the list of questions I memorized.
"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:QgILe.578$uO2.273@fed1read07...
>
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:11ftca35810psc4@corp.supernews.com...
> > >How often should you clean your screen grids?
> >>a. Daily
> >>b. Weekly
> >>c. Monthly
> >>d. Any time a grid leak is detected
>
> When it gets clogged with electrons
> --
> CL -- I doubt, therefore I might be !
>
>

4291. Re: Sony kitchen radio antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 17:33:13 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11fv03bs0qk49db@corp.supernews.com>
Source record: 71860

Is a sensitive a.m. radio one that stays up for a half hour afterwards
talking to her and lets me roll over and go back to sleep?

Jim

>It is a shame that sensitive am radios are so rare these days.

4292. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 17:35:14 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <610vf15u6i7iqcf9m3o8j82mbjuiue2f4v@4ax.com>
Source record: 71862

On Sun, 14 Aug 2005 13:18:11 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I can't belive no one has put up the correct answer. When grid leak becomes
>a problem, adding a dynatron oscillator, with it's negative resistance
>absorbs all the leaked electrons.
>
>New question:
>
>A Homotron is -
>a. An electron that has been given a positive charge
>b. An electron given a negative charge
>c. A queer electron that blows fuses
>d. Who knows, it wasn't in the list of questions I memorized.
>
The answer is both 'a' and 'c'. An electron that has a positive charge
must be queer.

Walt, W2DU

4293. Re: Sony kitchen radio antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 17:35:18 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11fup7jeb7nr7a2@corp.supernews.com>
Source record: 71850

"jeplett" <jeplett.1tmc08@news.radiobanter.com> wrote in message
news:jeplett.1tmc08@news.radiobanter.com...
>
> Hi radio folk. Not sure if this is the right forum for this post, but
> here goes:
>
> I have one of those white under-cabinet Sony kitchen radio / cd
> players. The radio uses a digital tuner. They have notoriously poor
> radio reception, and the internet is full of posts by people ranting
> about how Sony could sell such a poor radio.
>
> Rather than rant, I thought I'd ask you experts if there's anything
> that can be done to improve the reception. I understand the power cord
> is used as the antenna. I've tried stringing-up an extension cord to
> the power cord, with no improved reception. Could I open it up and
> attach an external antenna? If so, how would I do this? Any ideas, or
> experience with this particular problem?
>
> Regards,
>
>
> --
> jeplett

One way to do this is fairly simple. wind a flat coil. Take a piece of hard paper or cardboard and cut it into aabout a 6 inch circle. Cut notches all along the outer edge. Now wind about 20 turns of small wire through these outer edge notches. Place it on the bottom of your cupboard just above your radio. Attach an antenna (the best you can manage) to one terminal and your water pipe ground to the other terminal. This will do wonders for reception. You can still stack dishes on top of it. It is a shame that sensitive am radios are so rare these days.

Michael
W0EZI

4294. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 17:36:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4a9d$42ff812a$97d55c26$4664@ALLTEL.NET>
Source record: 71861

Sorry, never made a copy of any letters of that type. I do now with e-mail,
but in those days carbon paper had to be located manually :>)

"Walter Maxwell" <walt@w2du.com> wrote in message
news:phsuf11o981mfrablgg31rv4l3j9ub54ao@4ax.com...
> >I also wrote a letter to editor. I was a bit more sarcastic requesting
the
> >B/H curves of steel wool.
> >
> Do you still have a copy of that letter? I'd like to see a copy if you
> do.
>
> Walt,W2DU

4295. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 18:15:10 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <BXG7HSF338579.0938657407@reece.net.au>
Source record: 71863

You might be an old timer if your hamstick needs viagra to make contact.

4296. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 20:25:23 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11fva5rt1ptbjaa@corp.supernews.com>
Source record: 71864

Walter Maxwell wrote:
> On Sun, 14 Aug 2005 13:18:11 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>I can't belive no one has put up the correct answer. When grid leak becomes
>>a problem, adding a dynatron oscillator, with it's negative resistance
>>absorbs all the leaked electrons.
>>
>>New question:
>>
>>A Homotron is -
>>a. An electron that has been given a positive charge
>>b. An electron given a negative charge
>>c. A queer electron that blows fuses
>>d. Who knows, it wasn't in the list of questions I memorized.
>>
>
> The answer is both 'a' and 'c'. An electron that has a positive charge
> must be queer.
>
> Walt, W2DU
The correct answer is: none. A homotron has a neuter charge.

Dave WD9BDZ

4297. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 21:44:12 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <MWOLe.60057$B52.56864@tornado.ohiordc.rr.com>
Source record: 71865
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

I think they should drop morse as a requirement and add flag signalling instead. You never know when we will have a mass power failure and gasoline shortage at the same exact time!

Wayne (KC8UIO)

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message news:x_TJe.1297$Aq.917@bignews1.bellsouth.net...
> Please visit this Link...
> This is the future of our hobby...
>
> http://www.msu.edu/~volzmich/commenthelp.htm
>
> Step by Step instructions on how to leave comments with the FCC.
>
> --
>
>
>

4298. Re: DP-GH62 Mod

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:09:00 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <04788CCD38579.25625@reece.net.au>
Source record: 71866

Bart:

I strongly suspect you are correct and, either the dielectric and/or construction/spacing of the cap plates, etc, is not sufficient to handle the rf voltage/current though it.

Less likely would be the insulation/gauge of the inductor is not sufficent, or its' spacing away from other components is insufficient.

Never hurts to consult all sources though...

A Thrashed Ham.

4299. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:11:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a276f$42ffc1ba$97d55c26$23528@ALLTEL.NET>
Source record: 71867
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Sending morse code with a signal light is faster than signal flags,
especially at night.

"Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com> wrote in message
news:MWOLe.60057$B52.56864@tornado.ohiordc.rr.com...
> I think they should drop morse as a requirement and add flag signalling
> instead. You never know when we will have a mass power failure and
gasoline
> shortage at the same exact time!
>
> Wayne (KC8UIO)
>
> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
> news:x_TJe.1297$Aq.917@bignews1.bellsouth.net...
> > Please visit this Link...
> > This is the future of our hobby...
> >
> > http://www.msu.edu/~volzmich/commenthelp.htm
> >
> > Step by Step instructions on how to leave comments with the FCC.
> >
> > --
> >
> >
> >
>
>

4300. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:28:53 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <cfednYBIU5VpWGLfRVn-vw@comcast.com>
Source record: 71868
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Cecil Moore wrote:

SNIPPED
>
> 455 Khz on everything I used back then. With no RF amp,
> my S38 would receive the same signal on two different
> frequencies on 15m, sometimes eliminating an interferring
> signal in the process.

My National NC-54, i think, had the same design feature! :-)

Sensitivity on 10 meters was, well different. I could hear W1VUO and W1GID with excellent Q5 copy. I could never hear who they were working!

I figured out that it must be my receiver. After all, W1GID lived 200 yards North and W1VOU lived 1/2 mile west. Never heard anything else on 10 meters until I bought a REAL radio, HQ-140X.

BTW, in Boy Scouts I did build a Regenerative for 6 meters. It earned a Worked All TV sets award :-) Channel 2 is/was a major supplier in the Boston TV market.

4301. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:30:26 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <cfednYNIU5XMW2LfRVn-vw@comcast.com>
Source record: 71869
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Cecil Moore wrote:

> Big Endian wrote:
>
>> Cecil Moore <w5dxp@hotmail.com> wrote:
>>
>>> Real hams do DSP filtering at IF.
>>
>>
>> I thought you were an antenna guy.
>
>
> Believe it or not, I have at least two areas
> of interest. :-)

#1 ... women !!!!
#2 ... more women ?????

4302. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:39:25 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <fbednXsE8sLxVWLfRVn-rQ@comcast.com>
Source record: 71870

Ed Price wrote:

>SNIPPED
>>
>>
>>My problem isn't rodents in the house, it's scorpions. Killed two of
>>the things just last night. I'm remodeling a bathroom, where most of
>>them show up. I told my wife I think I'll install some UV lighting so
>>I can see them easier. (They fluoresce under UV.)
>
>
>
> Wes, what's the preferred scorpion killing technique; you use a hammer or
> what?
>

I know the design and operating principles of a hammer.

But, the design and operating principles of a 'What' escapes me!!

4303. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:41:26 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <fbednXoE8sJ4VWLfRVn-rQ@comcast.com>
Source record: 71871

Roy Lewallen wrote:

> Fred W4JLE wrote:
>
>> . . .
>> Feel free to add your own favorite...
>
>
> How often should you clean your screen grids?
> a. Daily
> b. Weekly
> c. Monthly
> d. Any time a grid leak is detected

Obviuously when they fill up with mosquitos and black flies.

4304. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:42:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <fbednXUE8sKoVGLfRVn-rQ@comcast.com>
Source record: 71872

Best answer yet!!

Thrasher Remailer wrote:

> You might be an old timer if your hamstick needs viagra to make contact.
>
>

4305. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-14 22:58:39 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <z0QLe.972$r54.555@newssvr19.news.prodigy.com>
Source record: 71873

> New question:
>
> A Homotron is -
> a. An electron that has been given a positive charge
> b. An electron given a negative charge
> c. A queer electron that blows fuses
> d. Who knows, it wasn't in the list of questions I memorized.
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message

Harkens back to the days of yore:

Question ? The best way to prevent electrical shock is: ?

Answer (think) was D: Double indemnety Life Insurance !

(That was on one of the early commercial FCC Phone tests!)
Jim

4306. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 00:08:42 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <esbvf1lhae9q0mea25for4dp5i61qscbo4@4ax.com>
Source record: 71874

On Sat, 13 Aug 2005 22:34:59 -0700, "Ed Price" <edprice@cox.net>
wrote:

[snip]
>
>
>Wes, what's the preferred scorpion killing technique; you use a hammer or
>what?

Depends. A couple of years ago I was doing some messy sheetrock work
and was wearing an old pair of shorts. When I finished for the day I
threw them on the floor and took my shower. The next morning I
slipped them back on, when out to the kitchen and got a cup of Joe and
sat down in front of the computer to read r.r.a.a.

I was sitting here when I felt a scratching on my leg. I jumped up
and exited the shorts in record time. Sure enough, there was a bark
scorpion in my drawers. We have three species here and of course the
most dangerous is the bark scorpion and they are the ones that most
like living in houses. I smacked that one with a handy book. To stay
on topic, let me say that it was probably the ARRL Antenna Book. :-)

Otherwise, it's whatever shoe is handy.

4307. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 00:44:26 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <LzRLe.2946$iM2.262153@news.xtra.co.nz>
Source record: 71875
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Sending may be faster with the flags, but receiving is a bit of a pain......

Ken

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:a276f$42ffc1ba$97d55c26$23528@ALLTEL.NET...
> Sending morse code with a signal light is faster than signal flags,
> especially at night.
>
> "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com> wrote in message
> news:MWOLe.60057$B52.56864@tornado.ohiordc.rr.com...
>> I think they should drop morse as a requirement and add flag signalling
>> instead. You never know when we will have a mass power failure and
> gasoline
>> shortage at the same exact time!
>>
>> Wayne (KC8UIO)
>>
>> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
>> news:x_TJe.1297$Aq.917@bignews1.bellsouth.net...
>> > Please visit this Link...
>> > This is the future of our hobby...
>> >
>> > http://www.msu.edu/~volzmich/commenthelp.htm
>> >
>> > Step by Step instructions on how to leave comments with the FCC.
>> >
>> > --
>> >
>> >
>> >
>>
>>
>
>

4308. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 01:51:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11fvt86mjg7nnab@corp.supernews.com>
Source record: 71777

Jim - NN7K wrote:
>
> Harkens back to the days of yore:
>
> Question ? The best way to prevent electrical shock is: ?
>
> Answer (think) was D: Double indemnety Life Insurance !
>
> (That was on one of the early commercial FCC Phone tests!)
> Jim

He speaks the truth -- I remember that one also.

The passing score on those tests was 75%, but you only had to know the answers to 50% in order to pass. There were four choices to each question; two were of the quality of the one Jim quotes. So if you answered the half you knew, you had a 50-50 chance with the rest of them by throwing out the ridiculous answers and random guessing between the two that remained. (Actually, you could do better yet with even less real knowledge by using a little basic testmanship.)

Roy Lewallen, W7EL

4309. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 02:10:22 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11fvuai9035uo06@corp.supernews.com>
Source record: 71778

Do not remember that question on my exam in the 50s. Do remember much huffing and puffing about the quality of the schematics that I had to draw and questions about B modulation (spark). Had to go to Detroit to take the exam. Entirely different city now.

But then, you may have taken the exam before I did. Fortunately, licenses in those days did not have age information on them. Had a job with a radio station when I was underage - the owner, also a Scot, knew not to ask and I knew not to tell. Still can smell the mice that got RF burned in the ammeter shunts. Some of us are getting on......

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11fvt86mjg7nnab@corp.supernews.com...
> Jim - NN7K wrote:
> >
> > Harkens back to the days of yore:
> >
> > Question ? The best way to prevent electrical shock is: ?
> >
> > Answer (think) was D: Double indemnety Life Insurance !
> >
> > (That was on one of the early commercial FCC Phone tests!)
> > Jim
>
> He speaks the truth -- I remember that one also.
>
> The passing score on those tests was 75%, but you only had to know the
> answers to 50% in order to pass. There were four choices to each
> question; two were of the quality of the one Jim quotes. So if you
> answered the half you knew, you had a 50-50 chance with the rest of them
> by throwing out the ridiculous answers and random guessing between the
> two that remained. (Actually, you could do better yet with even less
> real knowledge by using a little basic testmanship.)
>
> Roy Lewallen, W7EL

4310. Re: Sony kitchen radio antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 02:44:15 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11fvpdrqct145ef@corp.supernews.com>
Source record: 71776

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrndfuqjp.236j.bit-bucket@shell.config.com...
> On Sun, 14 Aug 2005 10:35:18 -0700, Michael wrote:
>
>> It is a shame that sensitive am radios are so rare these days.
>
> Well, they're not. But you have to dig them out of the dashboards
> of automobiles and rig up 12VDC power supplies for'em.
>
> Jonesy
> --
> Marvin L Jones | jonz | W3DHJ | linux
> Pueblo, Colorado | @ | Jonesy | OS/2 __
> 38.24N 104.55W | config.com | DM78rf | SK

That is very true, but most people won't go to that kind of trouble. I have a Honda radio I pulled out of my 98 CRV. It is the most sensitive am radio I have ever seen. I am setting it up in my shop with an antenna because I live 54 miles from the nearest town. It pulls in stations a couple of hundred miles away in the daytime. I replaced it with an mp3 player. I really like my own music on a trip.

Michael

4311. Re: APRS and voice - mobile configuration

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 03:20:42 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <an10g11opobfckdhqquamh1pn3otlvjrva@4ax.com>
Source record: 71779

On 22 Jul 2005 10:56:20 -0700, pgardella@gmail.com wrotF:

>There are times when Google search is great, and others where it fails
>me. This is one of those situations.
>
>I'm trying to find out what people recommend for handling both APRS and
>voice radios in the same vehicle. I want to have two separate rigs,
>one dedicated to APRS, the other for normal voice comms. I'm concerned
>about receiver overload and frying one of the rigs when the other is
>transmitting at high power.
>
>The rigs are modern (Yeasu FT-2800 for APRS and Yeasu FT-8900 for
>voice). Would the intermod rejection of these two rigs protect them?
>I'd rather not set up a cavity or other expensive filters.
>
>How do others have this setup in place?
>
>73,
>patrick

I'm running an FT-8800 for voice with a Comet CA-2x4SR on a trunk lid
mount and run APRS with a 20W brick amp into a Hustler 5/8 on a hood
lip mount. De- sense yes, damage not so far. I also have a dual band
scanner antenna on the opposite side of the trunk lid and the FT-8800
nor the 75W V-8000 before it have hurt the scanner. Other radios may
not be as tolerant of the overload.

4312. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 03:34:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1a44a$43000d96$97d55c26$17394@ALLTEL.NET>
Source record: 71780

Walt, I just went back and checked some old notes. I show I wrote a letter
to the editor on the steel wool balun in 1977. I know Roy said 1993, but I
"Walter Maxwell" <walt@w2du.com> wrote in message
news:3irsf1h4716dgkafn1jbk26je4v2fkuvh8@4ax.com...
> On Sat, 13 Aug 2005 18:00:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >You might be an old time if you can answer the following, with out diving
> >into your library.
> >
> >Which of the following is NOT a rectifier?
> >a. 3B24
> >b. 80
> >c. 3C24
> >d. 6H6
> >
> >Steel wool was once touted as a good material to make which of the
> >following?
> >
> >a. Choke Balun
> >b. AF shielding
> >c. Linear capacitors
> >d. Radials for short virticals
> >
> >Feel free to add your own favorite...
> >
>
> Good ones, Fred, 3B24 and 3C24 are not rectifiers.
>
> However, some moron claimed in QST that steel wool was just as good as
> ferrite for making choke baluns, but I've forgotten who the lunkhead
> at the League was who believed him, and allowed stupid idea to be
> published.
>
> I complained to the League editors, who unbelieveably said 'Prove It'.
> So I bought some steel wool and made two back to back baluns with it
> and made measurements of common mode currents. The measurements proved
> that the steel wool had absolutely no choking effect.
>
> I reported the results of the measurements to the editors at the
> League, but I can't remember whether they did anything about refuting
> the original incorrect material. Perhaps your memory is better than
> mine on this issue.
>

> Walt, W2DU

4313. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 03:40:33 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <68ff6$43000ef1$97d55c26$17640@ALLTEL.NET>
Source record: 71781

Walt I went back through some old note books, according to my records I sent the letter to the editor in 1977. I know Roy says 93, but I have e-mails from that period and knew it had to be earlier.

Does that match your recollection?

"Walter Maxwell" <walt@w2du.com> wrote in message news:cctuf1pkl29ic517rh25i3pio15i215t4g@4ax.com...
> Thanks, Roy, I had forgetten where the stuff was published.
>
> Walt
>
> On Sat, 13 Aug 2005 17:38:12 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >Walter Maxwell wrote:
> >> . . .
> >> However, some moron claimed in QST that steel wool was just as good as
> >> ferrite for making choke baluns, but I've forgotten who the lunkhead
> >> at the League was who believed him, and allowed stupid idea to be
> >> published.
> >>
> >> I complained to the League editors, who unbelieveably said 'Prove It'.
> >> So I bought some steel wool and made two back to back baluns with it
> >> and made measurements of common mode currents. The measurements proved
> >> that the steel wool had absolutely no choking effect.
> >>
> >> I reported the results of the measurements to the editors at the
> >> League, but I can't remember whether they did anything about refuting
> >> the original incorrect material. Perhaps your memory is better than
> >> mine on this issue.
> >>
> >> Walt, W2DU
> >
> >The results of your measurements were published in "Hints & Kinks" in
> >September 1993 QST. According to the editorial comment accompanying it,
> >you were prompted to make the measurements by Tom Rauch, W8JI, who had
> >done some measurements which indicated that the steel wool balun was
> >ineffective. The Hints & Kinks editor at the time, who had accepted both
> >the original contribution by Curt Wilson, W0KKQ and yours, was Dave
> >Newkirk, WJ1Z. Anyone interested in learning more about it should read
> >the Hints & Kinks submissions and note Dave's added editiorial comments.
> >
> >Roy Lewallen, W7EL
>

4314. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 04:16:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11g05otmhuualf3@corp.supernews.com>
Source record: 71782

J. Mc Laughlin wrote:
> . . .
> But then, you may have taken the exam before I did. Fortunately,
> licenses in those days did not have age information on them. Had a job with
> a radio station when I was underage - the owner, also a Scot, knew not to
> ask and I knew not to tell. . . .

My mother had to drive me to my first day on the job as a broadcast engineer -- I wasn't old enough to get a driver's license or, in the state I was in, even a learner's permit. (I did know how to drive, though, having gotten a learner's permit in Alaska at 14. Drove quite a bit of the way down the Alaska highway, too, unpaved at the time.) I'd been turned down for a job as a golf caddie because I wasn't old enough. That was 1961.

The owner of that first station I worked for became a fugitive from a felony conviction in about 1964. Don't think they ever caught him.

Roy Lewallen, W7EL

4315. Re: Required radials on DX-88

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 04:38:54 UTC
From: nm5k@wt.net
Message-ID: <1124080733.915572.206440@g47g2000cwa.googlegroups.com>
Source record: 71783

I assume this is a ground mount? In that case, measuring
the length of the radials is generally a waste of time.
Cutting them to resonance is not needed, unless they are
elevated. The most ground loss is directly at the base of
the antenna. So many short radials are better than a few
long ones. How tall is the vertical? If me, I would probably
run radials the same appx length of the antenna if I had a lot
of wire. But if limited wire, I would cut them shorter, and use
more of them. Only with elevated radials , do they need to be
resonant. Any radials on the ground will be detuned by the
ground. As far as the question, seems to me they would be
appx equal. The trimmed radials might be slightly better.
But not cuz they are tuned...Cuz, 4x9 bands =36 radials.
That would be slightly more wire at the base, than the 32
untrimmed radials... :/ And some would be longer than 24 ft... MK

4316. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 04:52:18 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <9cVLe.1843$Us5.255@fed1read02>
Source record: 71784

"Ham op" <hamop@comcast.net> wrote in message
news:fbednXsE8sLxVWLfRVn-rQ@comcast.com...
> Ed Price wrote:

>> Wes, what's the preferred scorpion killing technique; you use a hammer or
>> what?
>>
>
> I know the design and operating principles of a hammer.

Are you certain? Can you produce any documentation or certification
regarding your competence?

--
Ed
WB6WSN
El Cajon, CA USA

4317. Re: Required radials on DX-88

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 05:59:33 UTC
From: Charlie <chas@aol.com>
Message-ID: <11g0bqksbvgiu9a@news.supernews.com>
Source record: 71785

The more radials the better. Many suggest that after 60 radials one hits the point of diminishing return. I have 72 on my Hustler 5-BTV and it really does make a huge difference. Mine add up to about 1300 ft of wire total. Photos of the entire installation at...
1. http://www.ad5th.com/5-BTV.html

--

Charlie

"Topaz305RK" <k7sam@arrl.net> wrote in message
news:2PqdnWgfBfMoKWffRVn-rA@vnet-inc.com...
>
> Am in the process of installing a Hy-Gain DX-88 that I just picked up. It
> has the 160 meter kit included. According to the manuals I should install
> 16 radials at 14 feet each if just using up to 80 meters. If I plan to use
> 160 meters than I should also install another 16 radials at 24 feet each.
>
> The question: Would I better off to install all 32 of these radials (as
> per the manual) or put down 4 radials cut to 1/4 wave length for 10, 12,
> 15, 17, 20, 30, 40, 80 and 160 meters? Putting down 1/4 wave radials on 80
> and could prove to be a problem real estate wise. I am out in the country
> but even then I still have some limitations.
>
> Sam - K7SAM
>
>

4318. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 09:30:15 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11g0o5ae7jbfiac@corp.supernews.com>
Source record: 71786

I still can't believe anyone took this seriously.
Steel wool must have slightly higher permeability than air, certainly no
match for ferrites.
73
H.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:68ff6$43000ef1$97d55c26$17640@ALLTEL.NET...
> Walt I went back through some old note books, according to my records I
> sent
> the letter to the editor in 1977. I know Roy says 93, but I have e-mails
> from that period and knew it had to be earlier.
>
> Does that match your recollection?
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:cctuf1pkl29ic517rh25i3pio15i215t4g@4ax.com...
>> Thanks, Roy, I had forgetten where the stuff was published.
>>
>> Walt
>>
>> On Sat, 13 Aug 2005 17:38:12 -0700, Roy Lewallen <w7el@eznec.com>
>> wrote:
>>
>> >Walter Maxwell wrote:
>> >> . . .
>> >> However, some moron claimed in QST that steel wool was just as good as
>> >> ferrite for making choke baluns, but I've forgotten who the lunkhead
>> >> at the League was who believed him, and allowed stupid idea to be
>> >> published.
>> >>
>> >> I complained to the League editors, who unbelieveably said 'Prove It'.
>> >> So I bought some steel wool and made two back to back baluns with it
>> >> and made measurements of common mode currents. The measurements proved
>> >> that the steel wool had absolutely no choking effect.
>> >>
>> >> I reported the results of the measurements to the editors at the
>> >> League, but I can't remember whether they did anything about refuting
>> >> the original incorrect material. Perhaps your memory is better than
>> >> mine on this issue.
>> >>
>> >> Walt, W2DU
>> >
>> >The results of your measurements were published in "Hints & Kinks" in

>> >September 1993 QST. According to the editorial comment accompanying it,
>> >you were prompted to make the measurements by Tom Rauch, W8JI, who had
>> >done some measurements which indicated that the steel wool balun was
>> >ineffective. The Hints & Kinks editor at the time, who had accepted both
>> >the original contribution by Curt Wilson, W0KKQ and yours, was Dave
>> >Newkirk, WJ1Z. Anyone interested in learning more about it should read
>> >the Hints & Kinks submissions and note Dave's added editiorial comments.
>> >
>> >Roy Lewallen, W7EL
>>
>
>

4319. Re: 4Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 09:51:49 UTC
From: Ian Wade <g3nrw@yahoo.co.uk>
Message-ID: <66lx8FJYPGADFwzI@ntlworld.com>
Source record: 71787

In message <313030303837383542FB88F544@zetnet.co.uk>, Dave Piggin
<d.piggin@zetnet.co.uk> writes
>Hi All. Any good links for building 4Mtr beams for portable work or
>permanent. TIA Dave.
>

Dave, take a look at this forum:

http://www.70mhz.org/

--
73
Ian, G3NRW

g3nrw@yahoo.co.uk

4320. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 13:07:38 UTC
From: Travis Jordan <no.one@no.net>
Message-ID: <us0Me.184985$%M5.150803@fe04.news.easynews.com>
Source record: 71788
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Ken Taylor wrote:
> Sending may be faster with the flags, but receiving is a bit of a
> pain......

Smoke signals, anyone?

4321. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 13:22:51 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11g15nffcsa7t47@corp.supernews.com>
Source record: 71789

Dear Roy:
Outstanding. What a shame that that route for young people is closed.
I was able to ride a bicycle to the station. Would buy a quart of milk
on my way to the station from a delivery van and have a simple breakfast
while playing some sort of public service announcement to start the
broadcast day. My Mother had to cash my checks for me because I was working
when the bank was open. Very interesting people pass through broadcast
stations. Another form of early education.
Obviously, we both looked older than we were. Many years latter, I
learned that I had been chosen over other (smarter?) candidates for some
important opportunities because of the experience and initiative shown by
working as a broadcast "engineer." How do young people today demonstrate
such characteristics?

73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11g05otmhuualf3@corp.supernews.com...
> J. Mc Laughlin wrote:
> > . . .
> > But then, you may have taken the exam before I did. Fortunately,
> > licenses in those days did not have age information on them. Had a job
with
> > a radio station when I was underage - the owner, also a Scot, knew not
to
> > ask and I knew not to tell. . . .
>
> My mother had to drive me to my first day on the job as a broadcast
> engineer -- I wasn't old enough to get a driver's license or, in the
> state I was in, even a learner's permit. (I did know how to drive,
> though, having gotten a learner's permit in Alaska at 14. Drove quite a
> bit of the way down the Alaska highway, too, unpaved at the time.) I'd
> been turned down for a job as a golf caddie because I wasn't old enough.
> That was 1961.
>
> The owner of that first station I worked for became a fugitive from a
> felony conviction in about 1964. Don't think they ever caught him.
>
> Roy Lewallen, W7EL

4322. MFJ 1777 Antenna Install

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 13:24:53 UTC
From: Norm & Debbie <nwpars@insightbb.com>
Message-ID: <EI0Me.270304$xm3.215612@attbi_s21>
Source record: 71790

Group, anyone have experience with installing a MFJ 1777 Doublet Antenna?
How was it installed? What issues did you encounter? Thanks!

--
73
Norm, KB9VVT

4323. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 14:19:05 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <tv1Me.73176$yC5.36038@tornado.ohiordc.rr.com>
Source record: 71791
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

LOL!

"Travis Jordan" <no.one@no.net> wrote in message
news:us0Me.184985$%M5.150803@fe04.news.easynews.com...
> Ken Taylor wrote:
>> Sending may be faster with the flags, but receiving is a bit of a
>> pain......
>
> Smoke signals, anyone?
>
>

4324. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 14:32:04 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <EH1Me.73177$yC5.29516@tornado.ohiordc.rr.com>
Source record: 71792
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Let's face it, Morse had an important need at one time in the history of radio. As a result, many amateur spent countless hours perfecting this craft. I'm glad they did.

However, technology has advanced (thank God) to a point where Morse is all but obsolete. My hope is that when the FCC removes the Morse requirement, more amateurs will spend that time improving their technical abilities.

The nice thing about amateur radio is that it flexible and offers many (very necessary) opportunities to its ranks.
I believe the Morse requirement just distracts people from other more exciting (and more necessary) aspect of the hobby.

Wayne P. Muckleroy
(KC8UIO)

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:x_TJe.1297$Aq.917@bignews1.bellsouth.net...
> Please visit this Link...
> This is the future of our hobby...
>
> http://www.msu.edu/~volzmich/commenthelp.htm
>
> Step by Step instructions on how to leave comments with the FCC.
>
> --
>
>
>

4325. Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 17:56:00 UTC
From: MD <mdonoghue4@cogeco.ca>
Message-ID: <%F4Me.6040$7R.244431@news20.bellglobal.com>
Source record: 71793

I haven't got the room for a good 80m antenna. My vertical covers 40 so no trouble there. I am looking for ideas on a short 80m that will give half decent results. I have about 66' available straight or can make some kind of inverted vee ???

4326. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 18:36:20 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11g1o5d9ee4586c@corp.supernews.com>
Source record: 71794

Ed Price wrote:

> "Ham op" <hamop@comcast.net> wrote in message
> news:fbednXsE8sLxVWLfRVn-rQ@comcast.com...
>
>>Ed Price wrote:
>
>
>>>Wes, what's the preferred scorpion killing technique; you use a hammer or
>>>what?
>>>
>>
>>I know the design and operating principles of a hammer.
>
>
>
> Are you certain? Can you produce any documentation or certification
> regarding your competence?
>
I'm not the person being questioned above but I took shop class in High
School. Passed with flying colors. Does that count?

Dave N

4327. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 18:37:47 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11g1o83lef3bla6@corp.supernews.com>
Source record: 71795

Adam;

Do you remember "Contra Polar Energy"?
A lot of people fell for that, including yours truly.

Dave N

H. Adam Stevens, NQ5H wrote:

> I still can't believe anyone took this seriously.
> Steel wool must have slightly higher permeability than air, certainly no
> match for ferrites.
> 73
> H.
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:68ff6$43000ef1$97d55c26$17640@ALLTEL.NET...
>
>>Walt I went back through some old note books, according to my records I
>>sent
>>the letter to the editor in 1977. I know Roy says 93, but I have e-mails
>>from that period and knew it had to be earlier.
>>
>>Does that match your recollection?
>>
>>"Walter Maxwell" <walt@w2du.com> wrote in message
>>news:cctuf1pkl29ic517rh25i3pio15i215t4g@4ax.com...
>>
>>>Thanks, Roy, I had forgetten where the stuff was published.
>>>
>>>Walt
>>>
>>>On Sat, 13 Aug 2005 17:38:12 -0700, Roy Lewallen <w7el@eznec.com>
>>>wrote:
>>>
>>>
>>>>Walter Maxwell wrote:
>>>>
>>>>. . .
>>>>However, some moron claimed in QST that steel wool was just as good as
>>>>ferrite for making choke baluns, but I've forgotten who the lunkhead
>>>>at the League was who believed him, and allowed stupid idea to be
>>>>published.
>>>>
>>>>I complained to the League editors, who unbelieveably said 'Prove It'.

>>>>>So I bought some steel wool and made two back to back baluns with it
>>>>>and made measurements of common mode currents. The measurements proved
>>>>>that the steel wool had absolutely no choking effect.
>>>>>
>>>>>I reported the results of the measurements to the editors at the
>>>>>League, but I can't remember whether they did anything about refuting
>>>>>the original incorrect material. Perhaps your memory is better than
>>>>>mine on this issue.
>>>>>
>>>>>Walt, W2DU
>>>>
>>>>The results of your measurements were published in "Hints & Kinks" in
>>>>September 1993 QST. According to the editorial comment accompanying it,
>>>>you were prompted to make the measurements by Tom Rauch, W8JI, who had
>>>>done some measurements which indicated that the steel wool balun was
>>>>ineffective. The Hints & Kinks editor at the time, who had accepted both
>>>>the original contribution by Curt Wilson, W0KKQ and yours, was Dave
>>>>Newkirk, WJ1Z. Anyone interested in learning more about it should read
>>>>the Hints & Kinks submissions and note Dave's added editiorial comments.
>>>>
>>>>Roy Lewallen, W7EL
>>>
>>
>
>

4328. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 19:24:53 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <4R63MUG738580.1422800926@reece.net.au>
Source record: 71796

If you have done nothing interesting in the last day, week, month or year which is of any interest to most, you just might be an old timer.

If your newest equipment is over a decade old, you just might be an old timer.

If 40 and younger avoid you on the nets, you just might be an old timer.

If you can't crawl the tower anymore, pullup the mast, you just might be an old timer.

If your next stop is the resthome where your radio will be denied you, you just might be a old timer.

If you live in the past and think the bands are over crowded, you just might be an old timer.

If most of your exchanges and communications with others ends up into a sermon from you, a list of everything which is wrong, constant references to the past, and an attempt to stop progress, you might be an old timer.

If you can't see how horrible the above is, you might be an old timer.

4329. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 19:42:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124135101_2681@spool6-east.superfeed.net>
Source record: 71797

MD wrote:
> I haven't got the room for a good 80m antenna. My vertical covers 40 so no
> trouble there. I am looking for ideas on a short 80m that will give half
> decent results. I have about 66' available straight or can make some kind of
> inverted vee ???

My suggestion: Use the 102 ft G5RV length and let 18 ft. hang down
on each end. Feed it with ~23 ft of 450 ohm ladder-line. Put a
parallel cap of ~1000 pf across the ladder-line at the ladder-line
to coax junction on the antenna side of the choke. You probably won't
even need a tuner for the resonant frequency.

My second choice would be to go with the 66 ft. total length with
high-Q loading coils in the center of each 33 ft. leg.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4330. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 19:46:51 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8aead$4300f137$97d55c26$19168@ALLTEL.NET>
Source record: 71798

And if you have nothing better to do than write inane lists, and posting
them through anonymous remailers, you may be a loser regardless of age.

"Thrasher Remailer" <thrasher@reece.net.au> wrote in message
news:4R63MUG738580.1422800926@reece.net.au...
> If you have done nothing interesting in the last day, week, month or
> year which is of any interest to most, you just might be an old timer.
>
> If your newest equipment is over a decade old, you just might be an old
> timer.
>
> If 40 and younger avoid you on the nets, you just might be an old timer.
>
> If you can't crawl the tower anymore, pullup the mast, you just might be
> an old timer.
>
> If your next stop is the resthome where your radio will be denied you,
> you just might be a old timer.
>
> If you live in the past and think the bands are over crowded, you just
> might be an old timer.
>
> If most of your exchanges and communications with others ends up into a
> sermon from you, a list of everything which is wrong, constant
> references to the past, and an attempt to stop progress, you might be an
> old timer.
>
> If you can't see how horrible the above is, you might be an old timer.
>
>

4331. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 19:48:31 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <jk6Me.179178$9A2.64310@edtnps89>
Source record: 71799

"MD" <mdonoghue4@cogeco.ca> wrote in message
news:%F4Me.6040$7R.244431@news20.bellglobal.com...
>I haven't got the room for a good 80m antenna. My vertical covers 40 so no
> trouble there. I am looking for ideas on a short 80m that will give half
> decent results. I have about 66' available straight or can make some kind
> of
> inverted vee ???

Put up 66 ft of wire, or any length that is convenient. Wire length is unimportant. Inverted vee is ok. Feed it with open wire line (Or 450 ohm ladder line) an any point you like. It will work just the same as a full sized dipole. Do not use any coax in the feedline, losses can be very high, even with very short lengths. You do need a well designed tuner, with low losses. Fairly high voltages will be present at the output of the tuner.

Regards.

Frank

4332. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 20:11:26 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <OF6Me.179182$9A2.159211@edtnps89>
Source record: 71800

> Put up 66 ft of wire, or any length that is convenient. Wire length is
> unimportant. Inverted vee is ok. Feed it with open wire line (Or 450 ohm
> ladder line) an any point you like. It will work just the same as a full
> sized dipole. Do not use any coax in the feedline, losses can be very
> high, even with very short lengths. You do need a well designed tuner,
> with low losses. Fairly high voltages will be present at the output of
> the tuner.
>
> Regards.
>
> Frank

As an example on 3.8 MHz: 66 ft of #14 AWG wire, fed in the center, 30 ft high above average ground Er = 13 Sigma = 5 mS/m. Radiation efficiency 96%. Fed with 50 ft of 600 ohm open wire line: input impedance = 748 + j2087 maximum voltage at feedpoint, with 1.5 kW input, 3.05 kV. Series C, shunt L tuner, with inductor loaded Q of 200. Tuner Loss = 0.24 dB.

Frank

4333. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 20:14:13 UTC
From: chuck <nospam@nospam.net>
Message-ID: <pI6Me.6908$Je.6507@newsread2.news.atl.earthlink.net>
Source record: 71801

Can you tell us what you want to do with it?

MD wrote:
> I haven't got the room for a good 80m antenna. My vertical covers 40 so no
> trouble there. I am looking for ideas on a short 80m that will give half
> decent results. I have about 66' available straight or can make some kind of
> inverted vee ???
>
>

4334. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 20:20:03 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <TN6Me.179190$9A2.32636@edtnps89>
Source record: 71802

> As an example on 3.8 MHz: 66 ft of #14 AWG wire, fed in the center, 30 ft
> high above average ground Er = 13 Sigma = 5 mS/m. Radiation efficiency
> 96%. Fed with 50 ft of 600 ohm open wire line: input impedance = 748 +
> j2087 maximum voltage at feedpoint, with 1.5 kW input, 3.05 kV. Series
> C, shunt L tuner, with inductor loaded Q of 200. Tuner Loss = 0.24 dB.
>
> Frank

Forgot to mention. The transmission line loss is about 0.2 dB.

4335. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 20:48:54 UTC
From: MD <mdonoghue4@cogeco.ca>
Message-ID: <5c7Me.6192$7R.273557@news20.bellglobal.com>
Source record: 71804

"chuck" <nospam@nospam.net> wrote in message
news:pI6Me.6908$Je.6507@newsread2.news.atl.earthlink.net...
> Can you tell us what you want to do with it?

I have an R7 up for 40-10. Two maple trees on the property, one in the front yard and one in the back but not far enough apart for an 80m dipole. The trees runs east west over the house. I would prefer to run the dipole north south, using the backyard maple for a support. The lot at this point is 66' wide. One other thing to mention I don't think I can run ladder line or open wire feeder into the house. I am pretty much limited to coax.

Thanks for the help,

Max

4336. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 21:02:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124139899_2775@spool6-east.superfeed.net>
Source record: 71803

Frank wrote:
> Put up 66 ft of wire, or any length that is convenient. Wire length is
> unimportant. Inverted vee is ok. Feed it with open wire line (Or 450 ohm
> ladder line) an any point you like. It will work just the same as a full
> sized dipole.

EZNEC says that a 66 ft dipole used on 3.8 MHz, fed with 450 ohm
ladder-line, will have an SWR of greater than 100:1. This can
lead to all sorts of undesirable effects including an almost
impossible to match impedance at the tuner. A practical rule of
thumb might be in order, e.g. mine = no more than 20:1 SWR on the
ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4337. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 21:24:00 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <rl7Me.18979$rp.7185@bignews1.bellsouth.net>
Source record: 71805

Well shucks everyone ota have one for this thread HA HA

How about being able to read 5-level baudot paper tape with out the
teletype...
Das is der kerbanginchunger
http://www.kekatos.com/teletype/gil/M28.htm

73 K4TWO Gary

This thread will prob' last about 9 months :-) ding ding ding

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:b2f40$42fe6d97$97d55c26$18541@ALLTEL.NET...
sniippeddd
>
> Feel free to add your own favorite...
>
>

4338. Re: Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 21:46:28 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <UQR70RWD38580.2406018519@reece.net.au>
Source record: 71806

If you notice everyone standing around you is an old timer, you maybe an old timer.

If you find it offensive that others even notice what an old timer is, you may be an old timer.

4339. Re: A Sample Of The Supporters Pro-No-Code WT 05-235

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 21:57:02 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <J0MASVCW38580.2479398148@reece.net.au>
Source record: 71807

More cops and robber, I am a secret agent, I spy, save the titanic.

Grow up boys.

4340. OT getting back in to raaaaaaaaadio housing covenent question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:09:19 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <Rm8Me.15376$XM3.9663@bignews5.bellsouth.net>
Source record: 71808

I am soon to inherit my mothers house If I can stay alive longer
than she does with her cancer and me with my heart trubs'
Anyhow, if anyone knows... there are currently no
covenants about antennas for this neighborhood.. Wheew!
I got a copy from the deeds place to be safe and
the covenants expire in 5 more years. 35 yrs from dated
land sub-division development.

Question is what happens after the covenants expire?

Can someone write and file new ones?
Will they have to allow me time etc do file protests or what ever?
If I get my antennas up first do they have to be "grandfathered"
into any new covenants?

I don't plan huge or "obscene" type antennas, just
something to get on the air again with. Maybe a
short stout tower to get over the top of the roof.
Might be a vertical or two in the future 2m. 10m?
But I am still stuck with these nagging questions in
today's environment.

Thanks anyone K4TWO Gary

4341. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:13:57 UTC
From: chuck <nospam@nospam.net>
Message-ID: <Fs8Me.6021$RZ2.5694@newsread3.news.atl.earthlink.net>
Source record: 71809

I guess my question wasn't clear, Max.

Even though your space is limited, the type of antenna you install should be informed if possible by the type of operating you intend to do. If DX is very important to you (and here, DX could mean one or two thousand miles) you might want to work in some vertically polarized radiation, such as with an inverted L or a T (vertical with capacitive element on top) or a sloper. How tall are those maple trees?

It may even be possible to load the R7 on 80 with a switched loading coil at the base. Wouldn't win any efficiency awards I'm sure. But thinking about it is pretty cheap and even fun.

Chuck

MD wrote:
> "chuck" <nospam@nospam.net> wrote in message
> news:pI6Me.6908$Je.6507@newsread2.news.atl.earthlink.net...
>
>>Can you tell us what you want to do with it?
>
>
> I have an R7 up for 40-10. Two maple trees on the property, one in the front
> yard and one in the back but not far enough apart for an 80m dipole. The
> trees runs east west over the house. I would prefer to run the dipole north
> south, using the backyard maple for a support. The lot at this point is 66'
> wide. One other thing to mention I don't think I can run ladder line or open
> wire feeder into the house. I am pretty much limited to coax.
>
> Thanks for the help,
>
> Max
>
>

4342. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:14:22 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96B39B38F392spectrumhogstarbandn@207.106.93.175>
Source record: 71810

> I have an R7 up for 40-10. Two maple trees on the property, one in the
> front yard and one in the back but not far enough apart for an 80m
> dipole. The trees runs east west over the house. I would prefer to run
> the dipole north south, using the backyard maple for a support. The
> lot at this point is 66' wide. One other thing to mention I don't
> think I can run ladder line or open wire feeder into the house. I am
> pretty much limited to coax.
>
> Thanks for the help,
>

I just got done building a "shortened" 75M dipole for traveling. It is 27' on each leg. Homemade coils are out from the apex 15'. Doing a little research in some old antenna books, and on web, I found good, easy, information on calculating the value of the coils, depending on how far out from the apex you want. In my case, I needed 50uH coils, which I wound on some 1.5 inch plastic pluming material with #22 close spaced telephone house wiring. For my little 5W FT-817 this works quite well, but if you are running more power, you'll need to build a bit more robust coil. Apex is held up with one of those 23' RV telescoping fibreglass flag masts.

While open ladder line feed would give you a lot more flexibility, if you must use coax, then what I did sure would be an easy thing to do. If you need coil computation data and can't find it yourself, email me and I will try to get it to you.

Ed K7AAT Email: Frog850 AT Bivalley.net

4343. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:15:47 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11g250k4cvgr260@corp.supernews.com>
Source record: 71811

Dave
The first name is H. (No kidding) and no, but I recall an RF Turbine.
73
H.

"David G. Nagel" <nagel@core.com> wrote in message
news:11g1o83lef3bla6@corp.supernews.com...
> Adam;
>
> Do you remember "Contra Polar Energy"?
> A lot of people fell for that, including yours truly.
>
> Dave N
>
> H. Adam Stevens, NQ5H wrote:
>
>> I still can't believe anyone took this seriously.
>> Steel wool must have slightly higher permeability than air, certainly no
>> match for ferrites.
>> 73
>> H.
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:68ff6$43000ef1$97d55c26$17640@ALLTEL.NET...
>>
>>>Walt I went back through some old note books, according to my records I
>>>sent
>>>the letter to the editor in 1977. I know Roy says 93, but I have e-mails
>>>from that period and knew it had to be earlier.
>>>
>>>Does that match your recollection?
>>>
>>>"Walter Maxwell" <walt@w2du.com> wrote in message
>>>news:cctuf1pkl29ic517rh25i3pio15i215t4g@4ax.com...
>>>
>>>>Thanks, Roy, I had forgetten where the stuff was published.
>>>>
>>>>Walt
>>>>
>>>>On Sat, 13 Aug 2005 17:38:12 -0700, Roy Lewallen <w7el@eznec.com>
>>>>wrote:
>>>>
>>>>
>>>>>Walter Maxwell wrote:

>>>>>
>>>>>>. . .
>>>>>>However, some moron claimed in QST that steel wool was just as good as
>>>>>>ferrite for making choke baluns, but I've forgotten who the lunkhead
>>>>>>at the League was who believed him, and allowed stupid idea to be
>>>>>>published.
>>>>>>
>>>>>>I complained to the League editors, who unbelieveably said 'Prove It'.
>>>>>>So I bought some steel wool and made two back to back baluns with it
>>>>>>and made measurements of common mode currents. The measurements proved
>>>>>>that the steel wool had absolutely no choking effect.
>>>>>>
>>>>>>I reported the results of the measurements to the editors at the
>>>>>>League, but I can't remember whether they did anything about refuting
>>>>>>the original incorrect material. Perhaps your memory is better than
>>>>>>mine on this issue.
>>>>>>
>>>>>>Walt, W2DU
>>>>>
>>>>>The results of your measurements were published in "Hints & Kinks" in
>>>>>September 1993 QST. According to the editorial comment accompanying it,
>>>>>you were prompted to make the measurements by Tom Rauch, W8JI, who had
>>>>>done some measurements which indicated that the steel wool balun was
>>>>>ineffective. The Hints & Kinks editor at the time, who had accepted
>>>>>both
>>>>>the original contribution by Curt Wilson, W0KKQ and yours, was Dave
>>>>>Newkirk, WJ1Z. Anyone interested in learning more about it should read
>>>>>the Hints & Kinks submissions and note Dave's added editiorial
>>>>>comments.
>>>>>
>>>>>Roy Lewallen, W7EL
>>>>
>>>
>>

4344. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:17:08 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11g2536toptjd9b@corp.supernews.com>
Source record: 71812

You can see my Model 19 by going to www.spiderwebnet.net and clicking on my call.
H.
NQ5H

"Mr Fed UP" <mrfedup@bellsouth.net> wrote in message news:rI7Me.18979$rp.7185@bignews1.bellsouth.net...
> Well shucks everyone ota have one for this thread HA HA
>
> How about being able to read 5-level baudot paper tape with out the
> teletype...
> Das is der kerbanginchunger
> http://www.kekatos.com/teletype/gil/M28.htm
>
> 73 K4TWO Gary
>
> This thread will prob' last about 9 months :-) ding ding ding
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:b2f40$42fe6d97$97d55c26$18541@ALLTEL.NET...
> sniippeddd
>>
>> Feel free to add your own favorite...
>>
>>
>
>

4345. Re: MFJ 1777 Antenna Install

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:17:51 UTC
From: jgboyles@aol.com
Message-ID: <1124144271.340519.296530@g47g2000cwa.googlegroups.com>
Source record: 71813

Norm & Debbie wrote:
> Group, anyone have experience with installing a MFJ 1777 Doublet Antenna?
> How was it installed? What issues did you encounter? Thanks!
>
>
> --
> 73
> Norm, KB9VVT

Hi Norm, I have never installed an MFJ 1777, but have installed dozens of antennas just like it. The antenna is a 102' doublet fed with 450 ohm ladder line. The MFJ manual says it has to be used with a balanced antenna tuner. A new or used balanced antenna tuner will cost 3-4 times the $50 price tag for the antenna. The antenna will have to be used with some type of tuner, a "T" type will work, or a simple "L" network, with a suitable balun.
As far as installing, hang it high enough so the transmission line just gets to the tuner, that would be optimum.
If you want to use it on 160M that will require reconfiguring the antenna, not that difficult, but still a pain.
Gary N4AST

4346. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:23:51 UTC
From: wb5cys <wb5cys@sbcglobal.net>
Message-ID: <XB8Me.2845$Hn3.1439@newssvr23.news.prodigy.net>
Source record: 71814
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> I do wish people would not refer to me as a 'ham'.
>
> Amongst the very few things I am proud of is that I am a true Class-A
> Radio Amateur.
>
> Incidentally, as a British pensioner, my annual licence is free. When
> requested I just have to confirm I am still in circulation. Same
> applies to riding on buses when mobile or not mobile, sober or not
> sober.
>
> Arn't you American Amateurs envious?
> ----
> Reg, G4FGQ.
>
> ==================================
>
> "Cecil Moore" wrote -
>>
>> Real hams do DSP filtering at IF.
>

Most things in a socialist country are "free" - except for the people -
excuse me - subjects.

Cal, WB5CYS

4347. Re: OT getting back in to raaaaaaaaadio housing covenent question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:36:25 UTC
From: dplatt@radagast.org
Message-ID: <11g26794n2gr910@corp.supernews.com>
Source record: 71815

In article <Rm8Me.15376$XM3.9663@bignews5.bellsouth.net>,
Mr Fed UP <mrfedup@bellsouth.net> wrote:

>I am soon to inherit my mothers house If I can stay alive longer
>than she does with her cancer and me with my heart trubs'
>Anyhow, if anyone knows... there are currently no
>covenants about antennas for this neighborhood.. Wheew!
>I got a copy from the deeds place to be safe and
>the covenants expire in 5 more years. 35 yrs from dated
>land sub-division development.
>
>Question is what happens after the covenants expire?
>
>Can someone write and file new ones?
>Will they have to allow me time etc do file protests or what ever?
>If I get my antennas up first do they have to be "grandfathered"
>into any new covenants?

I would strongly encourage you to get advice from a local lawyer who
understands your state and local housing laws. There seems to be
quite a bit of variation from one area of the country to another, and
it's likely that advice you might be given might not apply in your area.

In some areas, the local homeowner's association is granted quite a
bit of power to create new covenants. This can be done by the HO's
board, which may or may not have been elected by a majority of the
homeowners, and their actions may or may not be subject to review by
the homeowners.

>But I am still stuck with these nagging questions in
>today's environment.

If you want answers that you can depend upon, I think you ought to
plan to speak with a lawyer who practices property law in the county
in which the home exists.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4348. Re: OT getting back in to raaaaaaaaadio housing covenent question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:47:28 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <d_8Me.16621$XL3.3362@bignews3.bellsouth.net>
Source record: 71816

Ok. I didn't know some legal folks had specialties in this field.
But after reading the reply I guess maybe no different than other things.
Thanks. I'll look as far as my wallet will take me comfortably. hi hi.

From Clarksville TN... maybe win the lotto and put up a 400 ft tower. lol

Thanks Gary

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11g26794n2gr910@corp.supernews.com...
> In article <Rm8Me.15376$XM3.9663@bignews5.bellsouth.net>,
> Mr Fed UP <mrfedup@bellsouth.net> wrote:
>
>>I am soon to inherit my mothers house If I can stay alive longer
>>than she does with her cancer and me with my heart trubs'
>>Anyhow, if anyone knows... there are currently no
>>covenants about antennas for this neighborhood.. Wheew!
>>I got a copy from the deeds place to be safe and
>>the covenants expire in 5 more years. 35 yrs from dated
>>land sub-division development.
>>
>>Question is what happens after the covenants expire?
>>
>>Can someone write and file new ones?
>>Will they have to allow me time etc do file protests or what ever?
>>If I get my antennas up first do they have to be "grandfathered"
>>into any new covenants?
>
> I would strongly encourage you to get advice from a local lawyer who
> understands your state and local housing laws. There seems to be
> quite a bit of variation from one area of the country to another, and
> it's likely that advice you might be given might not apply in your area.
>
> In some areas, the local homeowner's association is granted quite a
> bit of power to create new covenants. This can be done by the HO's
> board, which may or may not have been elected by a majority of the
> homeowners, and their actions may or may not be subject to review by
> the homeowners.
>
>>But I am still stuck with these nagging questions in
>>today's environment.
>
> If you want answers that you can depend upon, I think you ought to
> plan to speak with a lawyer who practices property law in the county
> in which the home exists.

>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

4349. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 22:54:43 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <M5ZTFNN838580.2879976852@reece.net.au>
Source record: 71817

dipole with the two legs helical wound and evenly spaced over the total
area length you have available.

4350. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 23:13:21 UTC
From: Thrasher Remailer <thrasher@reece.net.au>
Message-ID: <I7N3XMVY38580.3009375@reece.net.au>
Source record: 71818

Don't look to hard, or get too confident right at this time, appears as if a "few" of our rights are slipping down the john and someone is just about to pull the flapper... we may need to clean our own house before looking for the dust in others.

4351. Re: A Sample Of The Supporters Pro-No-Code WT 05-235

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-15 23:27:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124148589_2911@spool6-east.superfeed.net>
Source record: 71819

Thrasher Remailer wrote:
> ... save the titanic.

Was it the California's CW operator who got pi$$ed at
the arrogance of the Titantic's CW operator, shut his
rig down, and went to sleep?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4352. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 01:31:15 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <DIbMe.221688$on1.171706@clgrps13>
Source record: 71820

> EZNEC says that a 66 ft dipole used on 3.8 MHz, fed with 450 ohm
> ladder-line, will have an SWR of greater than 100:1. This can
> lead to all sorts of undesirable effects including an almost
> impossible to match impedance at the tuner. A practical rule of
> thumb might be in order, e.g. mine = no more than 20:1 SWR on the
> ladder-line.

Fact is Cecil I never pay any attention to VSWR, just complex numbers.
Anyway your comments made me re-analyze the problem, and I realize I made an
error in the transmission line and antenna tuner analysis. I thought the
transmission line loss I came up with was a bit low. The final numbers are
shown below. See if you agree with me; then explain where I went wrong, and
why the match will not work.

66 ft dipole, 30 ft high, #14 AWG: Input Z = 11.3 - j961 ohms.
50 ft of 600 ohm line: Input Z = 5.48 + j189.85 ohms, loss = 1.95 dB
Matching network: Shunt C = 296 pF, Series L = 22.8 uH.
(Obviously half the L for each side of a balanced.line.)
Max line voltage: 1.5 kW in = 3 kV.
Tuner loss: 0.44 dB.

Incidentally have you ever looked at a typical airport NDB site? For
example a 45 ft monopole on 350 kHz has an input impedance of 0.2 - j7054,
which is a VSWR of 4.9 million : 1 -- whatever that means -- virtually
touching the edge of the Smith Chart. I have even seen 5 mile approach NDBs
with 30 ft monopoles. Marine installations for 400 to 500 kHz operation
frequently had electrically very small inverted "L" antennas. Of course 5
S/m sure helped, but the losses in the tuners must have been significant.

73,

Frank

4353. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 02:06:37 UTC
From: garigue <garigue@comcast.net>
Message-ID: <kIWdneuv_aOM15zeRVn-qQ@comcast.com>
Source record: 71821

>
> My second choice would be to go with the 66 ft. total length with
> high-Q loading coils in the center of each 33 ft. leg.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Did that for a number of years on 80 CW ....worked fine .....

73 and God Bless .....KI3R Tom Popovic Belle Vernon PA.

4354. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 02:18:42 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zP-dndZ-bPnX0JzeRVn-jw@comcast.com>
Source record: 71822

Ed Price wrote:
> "Ham op" <hamop@comcast.net> wrote in message
> news:fbednXsE8sLxVWLfRVn-rQ@comcast.com...
>
>>Ed Price wrote:
>
>
>>>Wes, what's the preferred scorpion killing technique; you use a hammer or
>>>what?
>>>
>>
>>I know the design and operating principles of a hammer.
>
>
>
> Are you certain? Can you produce any documentation or certification
> regarding your competence?
>
My thumb is purple with a split fingernail! Does that count?

4355. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 02:24:07 UTC
From: MD <max_ve3tmt@yahoo.ca>
Message-ID: <57cMe.1085$1Y4.979@read1.cgocable.net>
Source record: 71823

"chuck" <nospam@nospam.net> wrote in message
news:Fs8Me.6021$RZ2.5694@newsread3.news.atl.earthlink.net...
> I guess my question wasn't clear, Max.
>
> Even though your space is limited, the type of antenna you install
> should be informed if possible by the type of operating you intend to
> do. If DX is very important to you (and here, DX could mean one or two
> thousand miles) you might want to work in some vertically polarized
> radiation, such as with an inverted L or a T (vertical with capacitive
> element on top) or a sloper. How tall are those maple trees?
>
> It may even be possible to load the R7 on 80 with a switched loading
> coil at the base. Wouldn't win any efficiency awards I'm sure. But
> thinking about it is pretty cheap and even fun.
>
> Chuck

The maple trees are pretty tall, getting up in there high enough would be a challenge. I may try 66' per side and see how high in the tree I have to go to get the angle out to the corners of the lot. Would a direct feed with 50 ohm coax be suitable with a choke balun? Mainly interested in local comms out to 3 or 400 miles.

Max

4356. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 02:40:26 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dsj2g19s3n7s971ob6usihnneesbfstqqj@4ax.com>
Source record: 71824

On Mon, 15 Aug 2005 16:48:54 -0400, "MD" <mdonoghue4@cogeco.ca> wrote:

>
>"chuck" <nospam@nospam.net> wrote in message
>news:pI6Me.6908$Je.6507@newsread2.news.atl.earthlink.net...
>> Can you tell us what you want to do with it?
>
>I have an R7 up for 40-10. Two maple trees on the property, one in the front
>yard and one in the back but not far enough apart for an 80m dipole. The
>trees runs east west over the house. I would prefer to run the dipole north
>south, using the backyard maple for a support. The lot at this point is 66'
>wide. One other thing to mention I don't think I can run ladder line or open
>wire feeder into the house. I am pretty much limited to coax.

Max, is that to mean you want to feed the 66' dipole with 50 ohm coax
(all the way from the rig to the centre of the dipole)?

Assuming the feedpoint impedance that others have modelled is about
right, and that was 11-j961 at 3.8MHz... the losses in 20m (60') of
RG213 would be around 18dB. That is, less than 2% of the power into
the cable reaches the feedpoint.

That isn't the end of the story, there will be tuner losses... but the
good news is that partly as a result of the very high coax losses, the
impedance presented to the tuner will be well within the range of
loads that can be transformed at fairly low loss.

So... less than 2% of the transmitter power reaching the feedpoint...
is that acceptable?

BTW, if you considered a shorter line, say half the length at 10m (or
30'), the losses would be around 13dB (note considerably more than
half of the losses for 20m of line - the loss/unit-length is not
constant along the line).

It turns out that in practice, it is very hard to get most of the
transmitter power to the feedpoint of a dipole when the dipole length
gets much below 35% of the wavelength. Using lossy feedline (like
coax) exacerbates the problem.

Owen
--

4357. Re: MFJ 1777 Antenna Install

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 03:31:50 UTC
From: Norm & Debbie <nwpars@insightbb.com>
Message-ID: <G6dMe.31209$084.25512@attbi_s22>
Source record: 71825

Thank you Gary. If you think of anything else, let me know.

Norm

<jgboyles@aol.com> wrote in message
news:1124144271.340519.296530@g47g2000cwa.googlegroups.com...
Norm & Debbie wrote:
> Group, anyone have experience with installing a MFJ 1777 Doublet Antenna?
> How was it installed? What issues did you encounter? Thanks!
>
>
> --
> 73
> Norm, KB9VVT

Hi Norm, I have never installed an MFJ 1777, but have installed dozens
of antennas just like it. The antenna is a 102' doublet fed with 450
ohm ladder line. The MFJ manual says it has to be used with a balanced
antenna tuner. A new or used balanced antenna tuner will cost 3-4
times the $50 price tag for the antenna. The antenna will have to be
used with some type of tuner, a "T" type will work, or a simple "L"
network, with a suitable balun.
As far as installing, hang it high enough so the transmission line
just gets to the tuner, that would be optimum.
If you want to use it on 160M that will require reconfiguring the
antenna, not that difficult, but still a pain.
Gary N4AST

4358. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 03:39:36 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <pan.2005.08.16.03.39.35.740542@removethis.oz.net>
Source record: 71726

Back around 1962, I was working on the Syncom satellite program at Hughes Aircraft. NASA wanted us to make some satellite transponder simulators so they could check out the ground stations. The plan was to take some of the 'less than perfect' hardware and package it up in a metal box. Unfortunately a lot of that stuff wasn't very stable, particularly the varactor multipliers. To make things worse, they used TWT amplifiers (in a separate box) followed by a 10 watt attenuator which brought the output back down to about the same level as the drive to the TWT. We ended up lining the boxes with steel wool along with a lot of metal tape to seal the seams, etc., and it did seem to help (a bit).

I remember the steel-wool balun story and wondered at the time if perhaps it was merely absorbing some of the current on the outside of the coax.

73, Bob N7XY

On Sun, 14 Aug 2005 23:34:48 -0400, Fred W4JLE wrote:

> Walt, I just went back and checked some old notes. I show I wrote a letter
> to the editor on the steel wool balun in 1977. I know Roy said 1993, but I
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:3irsf1h4716dgkafn1jbk26je4v2fkuvh8@4ax.com...
>> On Sat, 13 Aug 2005 18:00:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >You might be an old time if you can answer the following, with out diving
>> >into your library.
>> >
>> >Which of the following is NOT a rectifier?
>> >a. 3B24
>> >b. 80
>> >c. 3C24
>> >d. 6H6
>> >
>> >Steel wool was once touted as a good material to make which of the
>> >following?
>> >
>> >a. Choke Balun
>> >b. AF shielding
>> >c. Linear capacitors
>> >d. Radials for short virticals
>> >
>> >Feel free to add your own favorite...
>> >
>>

>> Good ones, Fred, 3B24 and 3C24 are not rectifiers.
>>
>> However, some moron claimed in QST that steel wool was just as good as
>> ferrite for making choke baluns, but I've forgotten who the lunkhead
>> at the League was who believed him, and allowed stupid idea to be
>> published.
>>
>> I complained to the League editors, who unbelieveably said 'Prove It'.
>> So I bought some steel wool and made two back to back baluns with it
>> and made measurements of common mode currents. The measurements proved
>> that the steel wool had absolutely no choking effect.
>>
>> I reported the results of the measurements to the editors at the
>> League, but I can't remember whether they did anything about refuting
>> the original incorrect material. Perhaps your memory is better than
>> mine on this issue.
>>
>> Walt, W2DU

4359. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 04:50:17 UTC
From: nm5k@wt.net
Message-ID: <1124167817.613368.32730@g49g2000cwa.googlegroups.com>
Source record: 71727

The filter in that unit was a
Gilette double-edged type.

I remember one that could slice a QSO right in half,
with just a knock of the leg against the table. :(
Once kicked, I'd usually never find them again.
Not the most mechanically stable thing I ever saw, but
that was in jr.hi, and we used what we had...
Luckily, it was not my radio. :/ My first novice rcvr was
a hammarlund HQ-110...Not quite as kickable.
He later got a SX-40? that was half decent...You couldn't
kick a guy off freq with it.. :/ I've got an old national here
that looks about like a S-38...Someone gave it to me
years ago, and to this day, I've never tried to use it, or
plug it in... :/ I think it's cuz it reminds me of that S-38...
MK

4360. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 10:57:00 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <JvKdnakbv7hGWJzeRVn-iw@bright.net>
Source record: 71728

You can try bending the ends to fit in the space you have...something
like "[" ought to work (top view--fed at the center, dipole). Or, if
you want to make loading coils, you can find the values you need in the
ARRL Antenna Book in the chapter on limited space antennas.

Scott
N0EDV

MD wrote:

> I haven't got the room for a good 80m antenna. My vertical covers 40 so no
> trouble there. I am looking for ideas on a short 80m that will give half
> decent results. I have about 66' available straight or can make some kind of
> inverted vee ???
>
>

4361. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 12:07:36 UTC
From: MD <mdonoghue4@cogeco.ca>
Message-ID: <mFkMe.6867$7R.399542@news20.bellglobal.com>
Source record: 71730

Lots of good information here guys, I appreciate all the help. Currently I am using a long wire elevated at the ghastly height of 15' using the eaves of the house as a counterpoise. I can work stations out to ~ 400-500 kms, maybe that is the best I can manage.

Once again, thanks for all the help.

de VE3TMT

4362. Re: small shortwave antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 12:09:59 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1d6408f3bc4f16f59896b0@news-server.socal.rr.com>
Source record: 71729

In article <4lkod157rpimgd23vspi0jp0sradpce3rs@4ax.com>,
none@personainternet.com says...
> I am livign in an apartment, so I cant transmit (no towers and what
> not) so I am looking for what would suit my needs best for HF and
> shortwave recption in general
>
> I have googled a bit and havent found much in the way of easy to build
> or easy to obtain parts to build antennas
>
> any help would be really appreciated
> cheers
>

I'm in a condo, which is also somewhat restrictive in terms of radio antennas and transmitters. Don't get discouraged, there are ways around it. Best thing to do is to look into QRP operation (power levels 5w and lower). I'm using an FT-817 which won't do any more than that, and a somewhat stealthily-arranged shorty G5RV antenna for 40m thru 10m, and a 2m vertical up where an old busted-up TV antenna used to be when we moved in. With that arrangement, I can work all the 2m repeaters in the area, and on HF I've worked all over the country plus several countries around the Pacific and into South America. Never had a TVI complaint at all.

One thing I =did= do was put the antenna up first, and leave it up for a couple of months before I did any transmitting. I read about one guy who had a neighbor start complaining immediately after he saw the antenna the guy put up. Since the antenna wasn't even connected to anything, the neighbor was caught without an explanation or complaint about the ham. Fortunately, nobody came by and started complaining so I proceeded with getting on the air, still no interference complaints and I've been operating for something like seven years now.

Another good story was a ham who was sitting in his living room watching the tube -- no radios on in the shack at all -- when a neighbor came by, furious because he was getting TV interference, and was POSITIVE it was the fault of this ham. The ham said, let's go see, so they went to the neighbor's house to look. Sure enough, there was a lot of TVI. The neighbor said, see, you're screwing up my TV! The ham said, how can that be? I'm standing right here, no radio in sight, so how can I be messing up your TV...?

Anyway, consider QRP -- you will be surprised at how much you can accomplish on only five watts!

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

4363. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 12:33:59 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <X2lMe.197169$tt5.130324@edtnps90>
Source record: 71731

"MD" <mdonoghue4@cogeco.ca> wrote in message
news:mFkMe.6867$7R.399542@news20.bellglobal.com...
> Lots of good information here guys, I appreciate all the help. Currently I
> am using a long wire elevated at the ghastly height of 15' using the eaves
> of the house as a counterpoise. I can work stations out to ~ 400-500 kms,
> maybe that is the best I can manage.
>
> Once again, thanks for all the help.
>
> de VE3TMT

I failed to notice you did not want to use open wire line. If you use inductive loading, for example: nominal 46 uH, Q = 200, at 15 ft from each end of a 66 ft dipole. The radiation efficiency is 71%, i.e you loose 1.5 dB in the loading coils. The input impedance is 28 ohms, and the losses on 60 ft of RG213 will only be 0.24 dB. Orientation of the dipole is unimportant since at 30 ft high the radiation is essentially omni-directional.

73,

Frank

4364. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 13:35:15 UTC
From: MD <mdonoghue4@cogeco.ca>
Message-ID: <yXIMe.6943$7R.409024@news20.bellglobal.com>
Source record: 71732

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:X2lMe.197169$tt5.130324@edtnps90...
> I failed to notice you did not want to use open wire line. If you use
> inductive loading, for example: nominal 46 uH, Q = 200, at 15 ft from each
> end of a 66 ft dipole. The radiation efficiency is 71%, i.e you loose 1.5
> dB in the loading coils. The input impedance is 28 ohms, and the losses
on
> 60 ft of RG213 will only be 0.24 dB. Orientation of the dipole is
> unimportant since at 30 ft high the radiation is essentially
> omni-directional.
>
> 73,
>
> Frank

Hi Frank,

Unfortunately using open-wire is not an option, as I have to feed the
feedline in through the exterior brick wall of the house. I have 2 feedlines
running out now. One to the R7 and the other for experimenting. I am going
to try your suggestions with the loading coils, as soon as I get back from
vacation!!

4365. Re: OT getting back in to radio housing covenent question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 14:24:10 UTC
From: joey <joey@antennaman.com>
Message-ID: <4301F707.131FA0C@antennaman.com>
Source record: 71733

hi,

There is a topic on www.eham.net for
antenna restrictions in the forums section.

Lots of good ideas there but best to
check with the local lawyers.

Good thing is perhaps everyone has
forgotten about these restrictions if any.

Good luck with your health issues.

73 joey

4366. Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 16:15:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddt3eeifr1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71734

Everything appears quiet on the Western Front. So let's waken things up.

Is there anybody about who still imagines that an SWR meter, located in the transmitter, or even on the other side of the tuner, indicates SWR on the transmission line between transmitter and the antenna?

Reg, G4FGQ

4367. Homebrew HT antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 16:19:27 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <jmoMe.2446$ct5.1920@fed1read04>
Source record: 71735

I just built a 1/4 wave (146mhz) antenna for my dual band
HT (Yaesu FT-51r). It's simply 19.25" of .025" piano wire
soldered into the core of a broken SO-239/BNC adapter.
The BNC center pin just sits in the socket in the radio with
a rubber bnc cap keeping the antenna load off the pin and
keeping dirt out. It's all a press fit and it seems to work great.

Comparing it to my OEM rubber duck, it's about 2-4 S units
better on 2m & 440. As I understand it, it works as a 3/4
wave antenna on UHF and should be a good match but the
radiation angle won't be perfect.

My question is this: What would be the radiation angle on 440?

I know I'm picking nits here but I'm interested in the theroy.

P.S. The FT-51R is an all metal case HT which should provide
a good capacitive couple to my hand but what about when
the HT is on the back of my backpack? What counterpoise do
I get then? Maybe from the mic cable?
--
73 de Ken KG WX - Flying Pigs #-1055
Elecraft K2 #4913

4368. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 16:27:52 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <9t44g19j8s8ojopba45di4l7b54j7cmjbc@4ax.com>
Source record: 71736

On Tue, 16 Aug 2005 16:15:10 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Everything appears quiet on the Western Front. So let's waken things
>up.
>
>Is there anybody about who still imagines that an SWR meter, located
>in the transmitter, or even on the other side of the tuner, indicates
>SWR on the transmission line between transmitter and the antenna?
>----
>Reg, G4FGQ
>

Yes, Reg, I know there are some morons out there who believe that.
Let's see who wakes up with this.

Walt

4369. Re: Homebrew HT antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 17:00:37 UTC
From: "David G. Nagel" <nagel.david@sbcglobal.net>
Message-ID: <VYoMe.1889$r54.158@newssvr19.news.prodigy.com>
Source record: 71737

Ken Bessler wrote:
> I just built a 1/4 wave (146mhz) antenna for my dual band
> HT (Yaesu FT-51r). It's simply 19.25" of .025" piano wire
> soldered into the core of a broken SO-239/BNC adapter.
> The BNC center pin just sits in the socket in the radio with
> a rubber bnc cap keeping the antenna load off the pin and
> keeping dirt out. It's all a press fit and it seems to work great.
>
> Comparing it to my OEM rubber duck, it's about 2-4 S units
> better on 2m & 440. As I understand it, it works as a 3/4
> wave antenna on UHF and should be a good match but the
> radiation angle won't be perfect.
>
> My question is this: What would be the radiation angle on 440?
>
> I know I'm picking nits here but I'm interested in the theroy.
>
> P.S. The FT-51R is an all metal case HT which should provide
> a good capacitive couple to my hand but what about when
> the HT is on the back of my backpack? What counterpoise do
> I get then? Maybe from the mic cable?
> --
> 73 de Ken KGï¿½WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>
In a HT I would not worry about radiation angle.

Dave WD9BDZ

4370. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 17:35:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124213926_3003@spool6-east.superfeed.net>
Source record: 71738

Reg Edwards wrote:
> Is there anybody about who still imagines that an SWR meter, located
> in the transmitter, or even on the other side of the tuner, indicates
> SWR on the transmission line between transmitter and the antenna?

If it's a stand-alone SWR meter with three foot 50 ohm
coax cables on the input and output, then it is located
in a 50 ohm environment and is indeed indicating the correct
SWR. The thing that makes an SWR meter indicate a valid value
is if its physical environment is extensive enough to force
the impedance ratio of Vfor/Ifor = Vref/Iref = 50 ohms.

Back when I got my first license, those things were called
transmatches. Seems you would like that name better than
SWR meter. TRANSmitter MATCHing device = Transmatch.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4371. Homebrew HT antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 17:50:22 UTC
From: nobody@anon.lcs.mit.edu
Message-ID: <20050816175022.12152.qmail@nym.alias.net>
Source record: 71739

The EZNEC program can be used to model the antenna which you constructed and show you the expected radiation pattern.

From playing with 3/4 wave antennas in the past, I would expect lobes to form which pushed the radiation angle towards the sky--where few HT exists.

4372. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 18:18:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddtako$5pp$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71740

"Walter Maxwell" wrote -
> "Reg Edwards" wrote -
> >Everything appears quiet on the Western Front. So let's waken
things
> >up.
> >
> >Is there anybody about who still imagines that an SWR meter,
located
> >in the transmitter, or even on the other side of the tuner,
indicates
> >SWR on the transmission line between transmitter and the antenna?
> >----
> >Reg, G4FGQ
> >
> Yes, Reg, I know there are some morons out there who believe that.
> Let's see who wakes up with this.
>
> Walt
==

Hello again Walt, I trust you are well.

I wouldn't go so far as listing them as morons. Just unfortunates who have been afflicted by the plagiarist outpourings of old wives who are still in the 1950's

A long thread is not expected. People are reluctant to admit past beliefs. I was just testing the present situation. But you never can tell, people may write in just to disprove my expectations. There's much to be learned in addition to mere SWR.

Yours, Reg.

4373. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 19:17:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddte4cchl1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71741

Cecil your argument begins with a big "If".

If only pigs could fly!

Nevertherless I agree with your name Transmatch. As you already know,
I myself advocate renaming the SWR meter as a TLI - Transmitter
Loading Indicator - which is what it actually is.

By no stretch of the imagination is it a Standing Wave Meter.

Reg.

4374. Re: Homebrew HT antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 19:37:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11g4g43ra2sc53@corp.supernews.com>
Source record: 71742

Ken Bessler wrote:
> I just built a 1/4 wave (146mhz) antenna for my dual band
> HT (Yaesu FT-51r). It's simply 19.25" of .025" piano wire
> soldered into the core of a broken SO-239/BNC adapter.
> The BNC center pin just sits in the socket in the radio with
> a rubber bnc cap keeping the antenna load off the pin and
> keeping dirt out. It's all a press fit and it seems to work great.
>
> Comparing it to my OEM rubber duck, it's about 2-4 S units
> better on 2m & 440. As I understand it, it works as a 3/4
> wave antenna on UHF and should be a good match but the
> radiation angle won't be perfect.
>
> My question is this: What would be the radiation angle on 440?

It's just about impossible to say. Your body is radiating at least as much as the "antenna", and the pattern is determined the combination.

> I know I'm picking nits here but I'm interested in the theroy.

The theory says that if you put any current I into the antenna, an equal current I flows from the inside of the antenna connector shell over the edge, over the HT case, and into any conductor it can find. The amount of radiation from the antenna is proportional to the current on each part of the antenna multiplied by the length of wire it flows on. The radiation from the HT case or your body is proportion to the current on each part of it multiplied by the length of the conductor it flows on. Your body and the HT case follow the same rules as the "antenna", and are at least as important a part of the radiating system. The overall pattern is the sum of the fields from all those current-conductor length products, from both the "antenna" and your body.

>
> P.S. The FT-51R is an all metal case HT which should provide
> a good capacitive couple to my hand but what about when
> the HT is on the back of my backpack? What counterpoise do
> I get then? Maybe from the mic cable?

Yes, the mic cable and case will become the other half of the antenna system. If you unplug the mic, the current into the "antenna" will drop (on 2 meters at least) because the impedance of the outside of the case will be relatively high because of its short length. And only the amount of current that flows on the outside of the case will flow into the "antenna".

Roy Lewallen, W7EL

4375. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 19:57:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124222434_5@spool6-east.superfeed.net>
Source record: 71743

Reg Edwards wrote:

> Cecil your argument begins with a big "If".
> If only pigs could fly!

An SWR meter is no different from any other piece of
measuring equipment. One shouldn't use a DC ohm-meter
to measure RF impedance. One shouldn't use an SWR meter
designed for a Z0=50 ohm environment in an environment
where Z0 is unknown or non-existant.

Earlier, I didn't mean to imply that the SWR meter was
known as a Transmatch. It was the entire antenna tuner
that was (and still is) known as a Transmatch.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4376. G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 21:52:45 UTC
From: News Xtra <jdekker@xtra.co.nz>
Message-ID: <LetMe.3398$iM2.312159@news.xtra.co.nz>
Source record: 71744

Guy. My best option is to install a G5VR but having one half bend back 90
degrees horizontally so that when you look down from the top it is L shaped.
My question is, will this degrade performance very much and in what way.
Many thanks and regards,
John ZL2TTM

4377. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 21:56:45 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <xitMe.92639$zY4.77507@tornado.ohiordc.rr.com>
Source record: 71745

Hi, Reg:

Reading the mail, I assert that your unsnipped statement has been **quite**
literally accepted, and applied, by many imaginations.

It is akin to writing, eg, that "Mr Churchill spared nothing to win WWII."
;o)

Kutgw, OM.

73, Dave, N3HE

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ddte4cchl1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
SNIP

> By no stretch of the imagination is it a Standing Wave Meter.
> ----
> Reg.
>
>

4378. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 22:15:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <OytMe.19574$XM3.7307@bignews5.bellsouth.net>
Source record: 71746

Ya might be an old-timer if your xyl gives you viagra so you don't roll off the bed.

4379. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 22:24:43 UTC
From: flashback <ndcoder@srt.com>
Message-ID: <11g4psr605gr8b9@corp.supernews.com>
Source record: 71747

"David J Windisch" <davidjw@cinci.rr.com> wrote in message
news:xitMe.92639$zY4.77507@tornado.ohiordc.rr.com...
> Hi, Reg:
>
> Reading the mail, I assert that your unsnipped statement has been
> **quite** literally accepted, and applied, by many imaginations.
>
> It is akin to writing, eg, that "Mr Churchill spared nothing to win WWII."
> ;o)
>
> Kutgw, OM.
>
> 73, Dave, N3HE
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:ddte4cchl1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> SNIP
>
>> By no stretch of the imagination is it a Standing Wave Meter.
>> ----
>> Reg.

Why is there a formula to quantify reflected power from an SWR reading? I have been using SWR meters all my life to check on reflected power from the antenna. This simple act has worked very very well for me through the years. I did this in my younger days professionaly for Raytheon. When I had tuned the antenna tuner or the antenna itself for a 1:1 match, suddenly I have a system that talks a long way. What was wrong with that?

Prairie Moron

4380. Test Only

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 23:09:48 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <%muMe.965$uO2.479@fed1read07>
Source record: 71748

Hmm my NG's are not downloading
Test to see if I can post

--
CL -- I doubt, therefore I might be !

4381. Re: Test Only

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 23:14:31 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.16.23.14.29.474984@gmail.com>
Source record: 71749

If your newgroups are not downloading, how are you going to see this post?

On Tue, 16 Aug 2005 16:09:48 -0700, Caveat Lector wrote:

> Hmm my NG's are not downloading
> Test to see if I can post

4382. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-16 23:31:42 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <430276ea.5980038@news.crosslink.net>
Source record: 71750

On Tue, 16 Aug 2005 16:15:10 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Everything appears quiet on the Western Front. So let's waken things
>up.
>
>Is there anybody about who still imagines that an SWR meter, located
>in the transmitter, or even on the other side of the tuner, indicates
>SWR on the transmission line between transmitter and the antenna?

In all seriousness, Reg, don't you think it would be better to be a
bit more clear about what you mean by the "other side of the tuner".
So far as I'm concerned, until I know what side of the tuner to which
you refer, I wouldn't want to comment.
Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

4383. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 00:05:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11g4vq9bsmds713@corp.supernews.com>
Source record: 71751

Reg,

Instead of yet another posting on the topic beyond the 20 or so you've already blessed us with proposing the new TLA (three letter acronym) of TLI, why don't you start by contacting Agilent (formerly HP), Narda, Anritsu, and the other manufacturers of precision terminators? Surely those professionals will see the impeccable logic of your proposal, and will immediately cease publishing a maximum SWR specification for their terminators. Then the manufacturers of RF transistors, directional couplers, attenuators, and other RF devices, which now have input SWR specifications, will follow. Of course, they can't call the former SWR the TLI, since it's not indicating anything, and there's not necessarily a transmitter involved. And the whole object here is to be consistent and rational, after all. So how about "RER" for "Reg Edwards Ratio", as in "guaranteed maximum RER = 1.1"? No one should confuse that with anything else.

Wouldn't this be a wonderful world (AWW) if only we were always strictly logical (ASL)?

Roy Lewallen, W7EL

4384. Re: Short 80m antenna, suggestions??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 00:08:41 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <3tmdnSAupemaHZ_eRVn-iw@adelphia.com>
Source record: 71752

MD wrote:
> "Frank" <ve6cb@nospam.telus.net> wrote in message
> news:X2lMe.197169$tt5.130324@edtnps90...
>
>>I failed to notice you did not want to use open wire line. If you use
>>inductive loading, for example: nominal 46 uH, Q = 200, at 15 ft from each
>>end of a 66 ft dipole. The radiation efficiency is 71%, i.e you loose 1.5
>>dB in the loading coils. The input impedance is 28 ohms, and the losses
>
> on
>
>>60 ft of RG213 will only be 0.24 dB. Orientation of the dipole is
>>unimportant since at 30 ft high the radiation is essentially
>>omni-directional.
>>
>>73,
>>
>>Frank
>
>
> Hi Frank,
>
> Unfortunately using open-wire is not an option, as I have to feed the
> feedline in through the exterior brick wall of the house. I have 2 feedlines
> running out now. One to the R7 and the other for experimenting. I am going
> to try your suggestions with the loading coils, as soon as I get back from
> vacation!!

Can you get something through a window? If the window can be opened,
you can place plexiglas or wood in the window, and then cut the
appropriate openings for ladder line.

- Mike KB3EIA -

4385. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 01:10:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddu2q7$1gv$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71753

"W9DMK (Robert Lay)" wrote
> In all seriousness, Reg, don't you think it would be better to be a
> bit more clear about what you mean by the "other side of the tuner".
> So far as I'm concerned, until I know what side of the tuner to
which
> you refer, I wouldn't want to comment.
================================

Bob,

To follow that American tennis player : "You can't be serious!
!!&$***!!! "

If initially it's inside the transmitter then on the other side of the
tuner implies it's on the other side of the tuner from the
transmitter.

Unless, of course, it's mounted in the 115V power lead TO the
transmitter.

Now can you comment? ;o)

Reg.

4386. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 01:53:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddu5as$6pb$2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71754

"David J Windisch" wrote
> Reading the mail, I assert that your unsnipped statement has been
quite
> literally accepted, and applied, by many imaginations.
>
> It is akin to writing, eg, that "Mr Churchill spared nothing to win
WWII."
> ;o)
==========
It is certainly true that Winnie spared nothing to lose the Battle of
the Dardanelles in WW1.

Reg.

4387. Re: Test Only

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 01:53:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddu5as$6pb$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71755

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pan.2005.08.16.23.14.29.474984@gmail.com...
> If your newgroups are not downloading, how are you going to see this
post?
>
> On Tue, 16 Aug 2005 16:09:48 -0700, Caveat Lector wrote:
>
> > Hmm my NG's are not downloading
> > Test to see if I can post
>
On MY screen John's response to Caveat's test message appeared
apparently before Caveat' sent it. But it located itself in the
correct sequence.

Reg.

4388. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 01:59:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ddu5mv$753$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71756

Roy, you don't like me, do you?

4389. Re: Congrats to K6MHE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 02:08:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11g570vr3t2me81@corp.supernews.com>
Source record: 71757

I just got my September issue today, and want to add my kudos. Well done, Danny, and I'm really pleased to see Wes' clever idea resurrected. I never thought it got the attention it deserved.

Roy Lewallen, W7EL

Wes Stewart wrote:
> Our own Danny Richardson has the lead article in the September issue
> of QST.
>
> Nicely done.

4390. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 03:29:25 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4302af15$0$32198$39cecf19@news.twtelecom.net>
Source record: 71758

Reg Edwards wrote:
> Roy, you don't like me, do you?
>
>

I don't think emotions are involved here, Reg, it seems to have to do
with reality.

tom
K0TAR

4391. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 03:54:09 UTC
From: W9DMK <nobody@crosslink.net>
Message-ID: <4302b451.21699472@news.crosslink.net>
Source record: 71759

On Wed, 17 Aug 2005 01:10:31 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"W9DMK (Robert Lay)" wrote
>> In all seriousness, Reg, don't you think it would be better to be a
>> bit more clear about what you mean by the "other side of the tuner".
>> So far as I'm concerned, until I know what side of the tuner to
>which
>> you refer, I wouldn't want to comment.
>================================
>
>Bob,
>
>To follow that American tennis player : "You can't be serious!
>*!!*&$***!!! "
>
>If initially it's inside the transmitter then on the other side of the
>tuner implies it's on the other side of the tuner from the
>transmitter.
>
>Unless, of course, it's mounted in the 115V power lead TO the
>transmitter.
>
>Now can you comment? ;o)

Dear Reg,

Yes, now I can. "Will I", is another matter. I may just wait until the
pervasive hostility abates. Besides which, this seems to be the time
for a little studied chin-stroking whilst sipping a soft Rose'.

Bob, W9DMK, Dahlgren, VA
Replace "nobody" with my callsign for e-mail
w9dmk<at>crosslink<dot>net
http://www.qsl.net/w9dmk
http://zaffora/f2o.org/W9DMK/W9dmk.html

4392. Re: OT getting back in to radio housing covenent question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 05:46:34 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <q9AMe.10485$xW.3590@bignews6.bellsouth.net>
Source record: 71760

Gee thanks. Read many. Now may have to move to another planet.

No wonder some folks go nuts. The same folks that b--ch and complain
would be the first to beg for help in an emergency eh.

Now I know why all the blacksmith shops in the westerns were on the end
of town.... covenants ran em off.

I wonder how covenants come in to play if I get a good size motor home or
RV and hang a humongous antenna and crank up on it.... mobile radio. Maybe
with some directive antennas I could squirt at the complainers homes. LOL

Good luck everyone. I'll put mine up and take a chance no one notices with
the trees in the background and the motorcycle/motorboat boob next door
Just the individual not the groups. varooooom!!!

"joey" <joey@antennaman.com> wrote in message
news:4301F707.131FA0C@antennaman.com...
> hi,
>
> There is a topic on www.eham.net for
> antenna restrictions in the forums section.
>
> Lots of good ideas there but best to
> check with the local lawyers.
>
> Good thing is perhaps everyone has
> forgotten about these restrictions if any.
>
> Good luck with your health issues.
>
> 73 joey
>

4393. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 07:24:56 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <ipDdgICIZuADFwwv@b-howie.demon.co.uk>
Source record: 71761

In message <ddt3eeifr1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, Reg Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>Everything appears quiet on the Western Front. So let's waken things
>up.
>
>Is there anybody about who still imagines that an SWR meter, located
>in the transmitter, or even on the other side of the tuner, indicates
>SWR on the transmission line between transmitter and the antenna?
>----
I use mine as an SW meter (Something Wrong)

DIJ
--
Brian Howie

4394. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 09:10:23 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <3aDMe.96261$zY4.38130@tornado.ohiordc.rr.com>
Source record: 71762

Thank goodness for nothing spared. With nothing spared in that battle,
there was plenty of nothing to spare for WWII.

73, Dave, N3HE

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ddu5as$6pb$2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "David J Windisch" wrote
>> Reading the mail, I assert that your unsnipped statement has been
> **quite**
>> literally accepted, and applied, by many imaginations.
>>
>> It is akin to writing, eg, that "Mr Churchill spared nothing to win
> WWII."
>> ;o)
> ================================
> It is certainly true that Winnie spared nothing to lose the Battle of
> the Dardanelles in WW1.
> ----
> Reg.
>
>

4395. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 09:13:13 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <JcDMe.96281$zY4.86169@tornado.ohiordc.rr.com>
Source record: 71763

Reg, may you be spared of the need to be liked.

73, Dave, N3HE

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ddu5mv$753$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Roy, you don't like me, do you?
>
>

4396. MALDOL HVU-8

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 11:03:50 UTC
From: Alan Nixon <anixon@blueyonder.co.uk>
Message-ID: <qQEMe.29$a87.7@fe3.news.blueyonder.co.uk>
Source record: 71764

Has anyone in the UK used one of these antennas ?
If so can you tell me about the results you have had from it

4397. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 12:27:40 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <v2b6g1li1g9jodvsjoosu63v3bbv0unvql@4ax.com>
Source record: 71765

On Tue, 16 Aug 2005 18:18:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Walter Maxwell" wrote -
>> "Reg Edwards" wrote -
>> >Everything appears quiet on the Western Front. So let's waken
>things
>> >up.
>> >
>> >Is there anybody about who still imagines that an SWR meter,
>located
>> >in the transmitter, or even on the other side of the tuner,
>indicates
>> >SWR on the transmission line between transmitter and the antenna?
>> >----
>> >Reg, G4FGQ
>> >
>> Yes, Reg, I know there are some morons out there who believe that.
>> Let's see who wakes up with this.
>>
>> Walt
>=======================================
>
>Hello again Walt, I trust you are well.
>
>I wouldn't go so far as listing them as morons. Just unfortunates who
>have been afflicted by the plagiarist outpourings of old wives who are
>still in the 1950's
>
>A long thread is not expected. People are reluctant to admit past
>beliefs. I was just testing the present situation. But you never can
>tell, people may write in just to disprove my expectations. There's
>much to be learned in addition to mere SWR.
>----
>Yours, Reg.
>
Hi Reg,

In using 'morons', I tend to exaggerate. I'm quite well, thank you,
and hope you are the same. I don't think I'm making too great an
assumption that you are, because you wit is still as sharp as ever.

Walt

4398. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 15:23:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.17.15.23.50.777515@gmail.com>
Source record: 71766

Reg:

The apache american Indians measured their greatness in the greatness of
their enemies, may you be fortunate enough to secure BIG ONES!

John

On Wed, 17 Aug 2005 01:59:59 +0000, Reg Edwards wrote:

> Roy, you don't like me, do you?

4399. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 15:44:14 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <iXIMe.184795$9A2.66584@edtnps89>
Source record: 71767

"News Xtra" <jdekker@xtra.co.nz> wrote in message
news:LetMe.3398$iM2.312159@news.xtra.co.nz...
> Guy. My best option is to install a G5VR but having one half bend back 90
> degrees horizontally so that when you look down from the top it is L
> shaped.
> My question is, will this degrade performance very much and in what way.
> Many thanks and regards,
> John ZL2TTM

Need more information: How high is the antenna, what type of transmission line do you plan on using, and what frequencies will it be used on?

Bending the antenna will reduce the real part of the input impedance, thus increasing transmission line losses. It will also tend to increase its directivity in the direction of the "vee".

The G5RV antenna tends to exhibit higher transmission line losses. See the extensive analysis at www.vk1od.net

Suggest you obtain the free download of EZNEC from www.eznec.com then you can analyze the antenna for yourself. Also there are many free programs available for transmission line analysis. Probably Reg (G4FGQ) has one for free.

Regards,

Frank (VE6CB)

4400. Cushcraft R-7000 traps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 19:30:00 UTC
From: Pat Cox <peacox@gloryroad.net>
Message-ID: <43039038.4E13AFF2@gloryroad.net>
Source record: 71768

Who posted the R-7000 traps a few weeks ago? Are they still available?
pcox

4401. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 20:55:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124312305_2789@spool6-east.superfeed.net>
Source record: 71769

John Smith wrote:
> The apache american Indians measured their greatness in the greatness of
> their enemies, may you be fortunate enough to secure BIG ONES!

Since you were the first to be "ploinked", you can be
president of the club. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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4402. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 21:03:09 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.17.21.03.08.317720@gmail.com>
Source record: 71770

Cecil:

OMG! You mean this is a popularity contest?

Darn, I must be in the wrong building... yanno, the "50's" are a hard
time. The youngsters don't wanna hang with ya, and the oldsters move away
from ya too... only hope, more 50'ies types!

John

On Wed, 17 Aug 2005 15:55:48 -0500, Cecil Moore wrote:

> John Smith wrote:
>> The apache american Indians measured their greatness in the greatness of
>> their enemies, may you be fortunate enough to secure BIG ONES!
>
> Since you were the first to be "ploinked", you can be
> president of the club. :-)

4403. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 21:05:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124312907_2819@spool6-east.superfeed.net>
Source record: 71771

Reg Edwards wrote:
> Roy, you don't like me, do you?

Reg, if he really doesn't like you, he will "ploink" you,
akin to being shunned by your religious sect (a fate worse
than death). :-) If you do succeed in getting "ploinked",
you can join our prestigious club (but not before). What
I did to get "ploinked" was to say that an antenna is a
"distributed network", not a "lumped circuit". Who knows,
maybe that would work for you also to get "ploinked"?
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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4404. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 21:16:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124313520_2833@spool6-east.superfeed.net>
Source record: 71772

John Smith wrote:
> Cecil: OMG! You mean this is a popularity contest?

Obviously, it is. If you get "ploinked" by the gurus, it means
you are "lower than the lowest layer of whale cagada in the
deepest part of the ocean". That's what I was as a freshman
at Texas A&M in 1955 and that's what I am still today on this
newsgroup, half a century later. But even though you were "ploinked"
first, I hold the record for being "ploinked" by the most gurus. But
you can be president anyway. "Vice"-president has a certain ring to
it that appeals to my dark side. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4405. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 21:36:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.17.21.36.22.343601@gmail.com>
Source record: 71676

Cecil:

You know, that wasn't right, I just passed that off with such a "frivolous air."

It is a shame to see one erect him/herself as a "God", intolerant, commanding and shoving a stone tablet into your hands. Removing themselves to a "throne" which none can visit (debate, argument, learning) except if commanded (allowed?) to do so.

(must make it difficult to sit down, for the "God" I mean, attempting to take a seat with multiple lips stuck to yer bottom! Poor bugger! <grin>)

What causes this to occur I really can only guess at, best guess is blinded by the light of their own ego, but may affect the elderly more-so than other groups, we all need to be aware, we will all be there...

I understand and pity them, have seen the same within my immediate family... <frown>

Sorry, but amateur radio is meant to be a hobby (at least one use of it is!), I don't think it is a crime to have a bit of fun either. Amateur radio assuming a "pseudo-military" air ruins its' use to many and attracts far too many with a rigid, disciplinarian and warrior mentality...

And, sorry again, I see newsgroups as a "social cocktail party", or a "town hall meeting", not a church where you worship gods and get a sermon by a priest... of course, my demeanor here has all ready given that away--most likely... I like the complex and intricate here--your arguments along with richards' and others are appreciated (you cause me to dig out my programmable calculator and follow along), and the practical is much appreciated too, even the "unconventional" challenging the accepted is/are good for brain food...

John

On Wed, 17 Aug 2005 15:55:48 -0500, Cecil Moore wrote:

> John Smith wrote:
>> The apache american Indians measured their greatness in the greatness of
>> their enemies, may you be fortunate enough to secure BIG ONES!
>
> Since you were the first to be "ploinked", you can be
> president of the club. :-)

4406. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 22:02:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.17.22.02.50.381415@gmail.com>
Source record: 71773

Cecil:

You obviously have a deeper/better understanding of many antenna, feed-line, etc. workings, so does Roy, so does Richard, so do many more, I can live with that--if you guys didn't--I'd leave! I may kid you guys, but we all know...

I will accept you are also the "Master of the Plonk" too, but I am gaining momentum, give me some time man!

I barely was able to grab the "plonk lead" on Reg, already the man is breathing down my collar! I fear he may gain an additional plonk any day now!

But, one good thing, when in "Plonk Purgatory", the gods cannot see you... Frankly though, I don't trust 'em, I get the feeling they peek now and then, I would, would not you? <grin>

John

On Wed, 17 Aug 2005 16:16:04 -0500, Cecil Moore wrote:

> John Smith wrote:
>> Cecil: OMG! You mean this is a popularity contest?
>
> Obviously, it is. If you get "ploinked" by the gurus, it means
> you are "lower than the lowest layer of whale cagada in the
> deepest part of the ocean". That's what I was as a freshman
> at Texas A&M in 1955 and that's what I am still today on this
> newsgroup, half a century later. But even though you were "ploinked"
> first, I hold the record for being "ploinked" by the most gurus. But
> you can be president anyway. "Vice"-president has a certain ring to
> it that appeals to my dark side. :-)

4407. Looking for Butternut HF9V

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 22:55:20 UTC
From: solidgoldZZZ@optonline.net
Message-ID: <4303c056.210789@news.optonline.net>
Source record: 71774
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Hi all,

I am looking for a used Butternut HF9V vertical. If you have one for sale, please reply to this message, and let me know its' condition, and how old it is (they changed in the late 90's). Remove the "ZZZ" from my E-mail address to send me mail.

Thanks,

RON KA2IIA
==========
Remove the ZZZ from my E-mail address to send me E-mail.

4408. Re: Cushcraft R-7000 traps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-17 23:14:15 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <bxPMe.2908$ct5.2525@fed1read04>
Source record: 71775

"Pat Cox" <peacox@gloryroad.net> wrote in message
news:43039038.4E13AFF2@gloryroad.net...
>
> Who posted the R-7000 traps a few weeks ago? Are they still available?
> pcox
>

It was Tim, K0FL but he posted it on rec.radio.swap.

I did a Google advanced group search by date with the keyword
"7000" in any group starting with rec.radio.*

Here is an excerpt from Tim's post:

> I have the CT1 and CT2 traps for the R-7000 for sale.
> Price is $25 each shipped lower 48 or make offer on both.
>
> 73 de Tim K�FL
>
>
> tranda at cox.net
>
Remember, Google is your friend - resistance is futile.....

--
73 de Ken KG�WX - Flying Pigs #-1055
Elecraft K2 #4913

4409. Indoor AM Radio Extension

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 01:44:32 UTC
From: ECJ <ECJoyce@gmail.com>
Message-ID: <1124329472.084693.265940@g43g2000cwa.googlegroups.com>
Source record: 71677

My radio is in the middle of a building out in the country and I can't seem to pick up am radio. To solve this problem I tried using speaker wire to extend it approximately 25 feet to the window in the office next door reconnecting it to the loop antenna that came with the radio. I had no luck. Is speaker wire an effective way to extend an AM antenna? If so what would be the best way to get better results. I thought maybe tinning the end of the speaker cable that goes into the radio , as well as soldering the speaker wire directly to the am antenna instead of just wrapping it might help. Any suggestions are appreciated.

ECJ

4410. Re: Indoor AM Radio Extension

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 02:14:28 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.18.02.14.25.674618@gmail.com>
Source record: 71678

ECJ:

Wind ~10 turns of ~22 gauge wire on an old ferrite loopstick rod, use mini coax connected to this loopstick over to a window, if the window frame is at gnd potential, hook the braid of the coax to it (if not, look for a close gnd), take the center coax lead out, around, through the window and to a random length wire. (once I was in the middle of an office floor in a cubical, popped the coax up to ceiling tile, then across the top of the tile to the window.

Now it is only necessary to move the ferrite rod and coil (you can wrap it with electrical tape to make it secure) around the am radio case to find the internal ferrite loopstick which the one you constructed will now couple to, just tune in a weak station and move it around, you will know when you find it and have it orientated in the correct direction, tape it in place and you are good to go!

... adapt the above as necessary...

John

On Wed, 17 Aug 2005 18:44:32 -0700, ECJ wrote:

> My radio is in the middle of a building out in the country and I can't
> seem to pick up am radio. To solve this problem I tried using speaker
> wire to extend it approximately 25 feet to the window in the office
> next door reconnecting it to the loop antenna that came with the radio.
> I had no luck. Is speaker wire an effective way to extend an AM
> antenna? If so what would be the best way to get better results. I
> thought maybe tinning the end of the speaker cable that goes into the
> radio , as well as soldering the speaker wire directly to the am
> antenna instead of just wrapping it might help. Any suggestions are
> appreciated.
>
> ECJ

4411. Re: Indoor AM Radio Extension

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 03:08:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124334638_3219@spool6-east.superfeed.net>
Source record: 71679

ECJ wrote:
> My radio is in the middle of a building out in the country and I can't
> seem to pick up am radio. To solve this problem I tried using speaker
> wire to extend it approximately 25 feet to the window in the office
> next door reconnecting it to the loop antenna that came with the radio.
> I had no luck. Is speaker wire an effective way to extend an AM
> antenna? If so what would be the best way to get better results. I
> thought maybe tinning the end of the speaker cable that goes into the
> radio , as well as soldering the speaker wire directly to the am
> antenna instead of just wrapping it might help. Any suggestions are
> appreciated.

This might work for you:

http://www.ccrane.com/antennas/am-antennas/select-a-tenna-model-m.aspx
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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4412. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 03:14:46 UTC
From: TJ <tjtrucker@hotmail.com>
Message-ID: <G2TMe.235079$s54.209214@pd7tw2no>
Source record: 71680

Works real good when mixed with black powder gun powder, home made
fireworks, Real colourful. Opps I think i aged myself.

Seems to me some one tried to make a capacitor with it too, if my memory is
working, again.

Al
VE7AGW
Port Alberni, BC
Canada

"Ed Price" <edprice@cox.net> wrote in message
news:qGALe.1696$Us5.1459@fed1read02...
>
> "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
> news:11ft3d9222qbua3@corp.supernews.com...
>> Fascinating.
>> Steel wool is mostly empty space.
>> 73
>> H.
>
>
> Even more empty after the first spark!
> --
> Ed
> WB6WSN
> El Cajon, CA USA
>
>

4413. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 04:13:21 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <Q3UMe.52881$vb3.29097@fe07.lga>
Source record: 71681

I've had poor luck even using the G5RV as an inverter V.

Dave - W5GT

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:iXIMe.184795$9A2.66584@edtnps89...
> "News Xtra" <jdekker@xtra.co.nz> wrote in message
> news:LetMe.3398$iM2.312159@news.xtra.co.nz...
> > Guy. My best option is to install a G5VR but having one half bend back
90
> > degrees horizontally so that when you look down from the top it is L
> > shaped.
> > My question is, will this degrade performance very much and in what way.
> > Many thanks and regards,
> > John ZL2TTM
>
> Need more information: How high is the antenna, what type of transmission
> line do you plan on using, and what frequencies will it be used on?
>
> Bending the antenna will reduce the real part of the input impedance, thus
> increasing transmission line losses. It will also tend to increase its
> directivity in the direction of the "vee".
>
> The G5RV antenna tends to exhibit higher transmission line losses. See
the
> extensive analysis at www.vk1od.net
>
> Suggest you obtain the free download of EZNEC from www.eznec.com then you
> can analyze the antenna for yourself. Also there are many free programs
> available for transmission line analysis. Probably Reg (G4FGQ) has one
for
> free.
>
> Regards,
>
> Frank (VE6CB)
>
>

4414. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 04:15:34 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <U5UMe.52882$vb3.711@fe07.lga>
Source record: 71682

"W5GT" <w5gt@arrl.net> wrote in message
news:Q3UMe.52881$vb3.29097@fe07.lga...
> I've had poor luck even using the G5RV as an inverted V.
>
> Dave - W5GT
>
> "Frank" <ve6cb@nospam.telus.net> wrote in message
> news:iXIMe.184795$9A2.66584@edtnps89...
> > "News Xtra" <jdekker@xtra.co.nz> wrote in message
> > news:LetMe.3398$iM2.312159@news.xtra.co.nz...
> > > Guy. My best option is to install a G5VR but having one half bend back
> 90
> > > degrees horizontally so that when you look down from the top it is L
> > > shaped.
> > > My question is, will this degrade performance very much and in what
way.
> > > Many thanks and regards,
> > > John ZL2TTM
> >
> > Need more information: How high is the antenna, what type of
transmission
> > line do you plan on using, and what frequencies will it be used on?
> >
> > Bending the antenna will reduce the real part of the input impedance,
thus
> > increasing transmission line losses. It will also tend to increase its
> > directivity in the direction of the "vee".
> >
> > The G5RV antenna tends to exhibit higher transmission line losses. See
> the
> > extensive analysis at www.vk1od.net
> >
> > Suggest you obtain the free download of EZNEC from www.eznec.com then
you
> > can analyze the antenna for yourself. Also there are many free programs
> > available for transmission line analysis. Probably Reg (G4FGQ) has one
> for
> > free.
> >
> > Regards,
> >
> > Frank (VE6CB)
> >
> >

>
>

4415. Re: Indoor AM Radio Extension

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 05:50:36 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <MkVMe.9943$rR4.2131@trnddc08>
Source record: 71683

"ECJ" <ECJoyce@gmail.com> wrote in message
news:1124329472.084693.265940@g43g2000cwa.googlegroups.com...
> My radio is in the middle of a building out in the country and I can't
> seem to pick up am radio. To solve this problem I tried using speaker
> wire to extend it approximately 25 feet to the window in the office
> next door reconnecting it to the loop antenna that came with the radio.
> I had no luck. Is speaker wire an effective way to extend an AM
> antenna? If so what would be the best way to get better results. I
> thought maybe tinning the end of the speaker cable that goes into the
> radio , as well as soldering the speaker wire directly to the am
> antenna instead of just wrapping it might help. Any suggestions are
> appreciated.
>
> ECJ

ECJ

The 25 feet of speaker wire has become a capacitor across the loop that
you re-located. That detunes the loop and produces a low impedance shunt
across the front end of the receiver.
If you are interested in one particular station, it is practical to
build/buy a tuned loop AM antenna. Google will guide you to a few
practical designs of AM loop antennas.

Jerry

4416. Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 10:04:06 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <24m8g110uk3mj99burij3c18d8oe7eig5t@4ax.com>
Source record: 71684

Hi folks, first let me apologise for not lurking, or even reading a FAQ (I did look and did not find). I know that radio amateurs are a helpful and friendly bunch, so here goes.
From the UK, for historical reasons, the BBC broadcasts programmes on Long wave, specifically 1500 metres (198 Khz???). I drive a truck on the continent of Europe, and would love to listen to this service whilst on the road (for the cricket!). I know that the signal is there, and of sufficient strength, as I can receive it OUTSIDE the truck on an ancient "portable" Inside the steel box (cab) however, too much noise/too little signal to be useful. The fitted radio has LW, but again cannot be used for the noise. Could anyone please point me to some answers to the following:
Antennae: Could I build (buy) some kind of antenna specifically to receive this emission?
(My old radio has a socket labelled "AM antenna").
Could I build a receiver tuned only to this freq., with no need for a speaker (run the sound in at headphone type power) that I could hang/bolt outside the truck (on the roof?), with its own battery and aerial? If so could someone point me to a diagram of such a beastie?

4417. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 11:31:21 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <JtudnTc0yOd77JneRVn-sA@comcast.com>
Source record: 71685

Wouldn't I just love to see the 50s again !~!!!!!!!!

John Smith wrote:
> Cecil:
>
> OMG! You mean this is a popularity contest?
>
> Darn, I must be in the wrong building... yanno, the "50's" are a hard
> time. The youngsters don't wanna hang with ya, and the oldsters move away
> from ya too... only hope, more 50'ies types!
>
> John
>
> On Wed, 17 Aug 2005 15:55:48 -0500, Cecil Moore wrote:
>
>
>>John Smith wrote:
>>
>>>The apache american Indians measured their greatness in the greatness of
>>>their enemies, may you be fortunate enough to secure BIG ONES!
>>
>>Since you were the first to be "ploinked", you can be
>>president of the club. :-)
>
>

4418. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 11:59:22 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11g8tur9cdvb6d7@corp.supernews.com>
Source record: 71686

Dear Mr. Stephen Parry:
It is possible that the truck (it is one truck?) produces too much noise at 198 kHz. An important test is to note if your portable radio tuned to 198 kHz receives a satisfactory signal-to-noise ratio when the truck is running all of its equipment. Try placing the portable radio next to the truck in places where one might attach an antenna.

The fitted radio, which has LW, must have an outside antenna. Is that antenna in good condition?

Your solution might be to reduce the noise produced by the truck. Antennas for LW suitable for mounting on a truck do exist, however they will not help if they receive too much noise.

Let the group know the results of your testing. Tell us more about the truck. Regards, Mac

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Stephen Parry" <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t> wrote in message news:24m8g110uk3mj99burij3c18d8oe7eig5t@4ax.com...
> Hi folks, first let me apologise for not lurking, or even reading a
> FAQ (I did look and did not find). I know that radio amateurs are a
> helpful and friendly bunch, so here goes.
> From the UK, for historical reasons, the BBC broadcasts programmes on
> Long wave, specifically 1500 metres (198 Khz???). I drive a truck on
> the continent of Europe, and would love to listen to this service
> whilst on the road (for the cricket!). I know that the signal is
> there, and of sufficient strength, as I can receive it OUTSIDE the
> truck on an ancient "portable" Inside the steel box (cab) however, too
> much noise/too little signal to be useful. The fitted radio has LW,
> but again cannot be used for the noise. Could anyone please point me
> to some answers to the following:
> Antennae: Could I build (buy) some kind of antenna specifically to
> receive this emission?
> (My old radio has a socket labelled "AM antenna").
> Could I build a receiver tuned only to this freq., with no need for a
> speaker (run the sound in at headphone type power) that I could
> hang/bolt outside the truck (on the roof?), with its own battery and
> aerial? If so could someone point me to a diagram of such a beastie?

4419. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 12:13:52 UTC
From: Jim Leder <k8cxm@spam.fuse.net>
Message-ID: <cb089$43047b7e$48317931$24325@FUSE.NET>
Source record: 71687

A G5RV is really an inefficient collinear antenna, so it needs to be a flatop, not a Vee or L. Model it and you will see it is a 'long' (on 20 meters) Extended Double Zepp. The extra length improves the pattern into multiple lobes at the cost of some gain. A true EDZ has more gain, but only one very narrow broadside lobe off each side. The G5RV has 3 lobes off each side.

"W5GT" <w5gt@arrl.net> wrote in message
news:Q3UMe.52881$vb3.29097@fe07.lga...
> I've had poor luck even using the G5RV as an inverter V.
>
> Dave - W5GT
>
> "Frank" <ve6cb@nospam.telus.net> wrote in message
> news:iXIMe.184795$9A2.66584@edtnps89...
>> "News Xtra" <jdekker@xtra.co.nz> wrote in message
>> news:LetMe.3398$iM2.312159@news.xtra.co.nz...
>> > Guy. My best option is to install a G5VR but having one half bend back
> 90
>> > degrees horizontally so that when you look down from the top it is L
>> > shaped.
>> > My question is, will this degrade performance very much and in what
>> > way.
>> > Many thanks and regards,
>> > John ZL2TTM
>>
>> Need more information: How high is the antenna, what type of
>> transmission
>> line do you plan on using, and what frequencies will it be used on?
>>
>> Bending the antenna will reduce the real part of the input impedance,
>> thus
>> increasing transmission line losses. It will also tend to increase its
>> directivity in the direction of the "vee".
>>
>> The G5RV antenna tends to exhibit higher transmission line losses. See
> the
>> extensive analysis at www.vk1od.net
>>
>> Suggest you obtain the free download of EZNEC from www.eznec.com then you
>> can analyze the antenna for yourself. Also there are many free programs
>> available for transmission line analysis. Probably Reg (G4FGQ) has one
> for
>> free.

>>
>> Regards,
>>
>> Frank (VE6CB)
>>
>>
>
>

4420. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 13:31:23 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <sa39g1lss7s0b2nnnvc2vb86h0i9662fgh@4ax.com>
Source record: 71688

I predict it will change the pattern, change the input impedance and probably otherwise work well. Sometimes you have to get along with what you have rather than what you want. Modern rigs like to see 50 ohms, so plan on using something to match your transmission line and go for it.

On Wed, 17 Aug 2005 09:52:45 +1200, "News Xtra" <jdekker@xtra.co.nz> wrote:

>Guy. My best option is to install a G5VR but having one half bend back 90
>degrees horizontally so that when you look down from the top it is L shaped.
>My question is, will this degrade performance very much and in what way.
>Many thanks and regards,
>John ZL2TTM
>

4421. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 14:57:12 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.18.14.57.10.881579@gmail.com>
Source record: 71691

Ham op:

You suppose I am going to end up wishing that, and all too soon?

As long as I was wishing I was younger, I was really concentrating on 21!
There was something about the girls back then I liked... <grin>

John

On Thu, 18 Aug 2005 07:31:21 -0400, Ham op wrote:

> Wouldn't I just love to see the 50s again !~!!!!!!!!
>
> John Smith wrote:
>> Cecil:
>>
>> OMG! You mean this is a popularity contest?
>>
>> Darn, I must be in the wrong building... yanno, the "50's" are a hard
>> time. The youngsters don't wanna hang with ya, and the oldsters move away
>> from ya too... only hope, more 50'ies types!
>>
>> John
>>
>> On Wed, 17 Aug 2005 15:55:48 -0500, Cecil Moore wrote:
>>
>>
>>>>John Smith wrote:
>>>
>>>>>>The apache american Indians measured their greatness in the greatness of
>>>>>>their enemies, may you be fortunate enough to secure BIG ONES!
>>>
>>>Since you were the first to be "ploinked", you can be
>>>president of the club. :-)
>>
>>

4422. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 15:16:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124378346_4033@spool6-east.superfeed.net>
Source record: 71689

Stephen Parry wrote:
> Inside the steel box (cab) however, too
> much noise/too little signal to be useful.

Is the noise coming out of the radio speaker or is
it the physical noise level that is the problem?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4423. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 15:33:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124379392_4049@spool6-east.superfeed.net>
Source record: 71690

Jim Leder wrote:
> A G5RV is really an inefficient collinear antenna, so it needs to be a
> flatop, not a Vee or L. Model it and you will see it is a 'long' (on 20
> meters) Extended Double Zepp.

Jim, your statement is a little confusing. I know you mean that the
G5RV is 1/4WL too long to be called an Extended Double Zepp on 20m.
An EDZ is a single frequency antenna. The 102' G5RV is an EDZ on 11.5
MHz. EDZ length = 1170/F. And, you're right, G5RV's perform better as
a flat-top.

My modified G5RV performs as well as my 130' doublet fed with ladder-
line, given the slightly different radiation patterns. I vary the
length of the G5RV series matching section as follows:

3.8 MHz 23 ft., 7.2 MHz 35 ft., 10.125 MHz 20 ft., 14.2 Mhz 29 ft.,
18.14 Mhz 36 ft., 21.3 MHz 27 ft., 24.95 MHz 29 ft., 28.4 Mhz 22.5 ft.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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4424. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 15:54:21 UTC
From: richardharrison@webtv.net
Message-ID: <1850-4304AF2D-210@storefull-3257.bay.webtv.net>
Source record: 71692

Stephen Parry wrote:
"I drive a truck on the continent of Europe, and would love to listen to this service on the road for cricket."

The Blau Punkt in my Karman Ghia got such signals all over the continent, and I`m just one of millions.

Mr Parry did not say if his truck is Diesel powered as most European trucks are. If so, he is free of his own ignition noise, usually the hardest to suppress. He still may have alternator whine (perhaps a bad diode) and he may have static discharges from things which rotate. Some are under the hood, and their radiation should be kept under the hood by the metal surrounding them. All such metal pieces should be bonded together to keep the trap they form closed.

All conductors coming through or under the firewall should be well grounded or bypassed with capacitors at the firewall. The exhausr pipe may need bonding here also.

Maybe there is a gasoline powered rerfrigeration compressor generating ignition noise. Standard resistance wires, capacitors, and bondibg should silence that.

Springs can be used in wheel hubs to ground out static.

All the metal parts of the truck may have to be bonded together.

My Blau Punkt was equipped with a good sized choke coil in its battery lead. It also had an internal "spark-plate" capacitor, and these rid the power source of radio noise.

The telescoping antenna (about 50 years ago) could be extended to about 100 inches, which made the Karman Ghia quite a sight, but it worked. The antenna cable was the standard high-impedance small inner-wire coaxial type. This must be intact and perfect to keep the signal on track and the noise out. Though German, it used Motorola connectors.

Radio frequencies decline very rapidly near their source. This is your friend when the source causes interference. Keep the antenna away from and shielded from sources of interferebce.

In 1935, Alfred A, Ghirardi (E.E.) wrote:
"---an aerial must be installed in (or on) the roof, under the running boards or chassis of the car, or in some other locations.
---Considerable attention must be given to the ignition and other electrical wiring of the car in order to eliminate all electrical interference which it produces in the receiver."

Noise problems are more often caused by the vehicle than by the receiver but some receivers may not be shielded and filtered well enough. If the truck cab has its pieces bonded together and all pass-through conductors are well bonded or bypassed, it should be electrically quiet. You should be able to use a portable radio in there with proper placement or an outside antenna.

Ghirardi devotes an entire chapter to automobile radio installation in "Modern Radio Servicing". Car radios are hot in the summer months while home radios are not.

Best regards, Richard Harrison, KB5WZI

4425. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 16:25:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <343a0$4304b6cf$97d55936$11332@ALLTEL.NET>
Source record: 71693

At least in the day, women looked like women with hips and soft curves.
Today the "ideal" woman looks like a young boy, no shape and a hard body...
Yuk!

And to think it all started with Twiggy.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pan.2005.08.18.14.57.10.881579@gmail.com...
> Ham op:
>
> You suppose I am going to end up wishing that, and all too soon?
>
> As long as I was wishing I was younger, I was really concentrating on 21!
> There was something about the girls back then I liked... <grin>

4426. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 16:34:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.18.16.34.50.511112@gmail.com>
Source record: 71694

Fred:

You bring a tear of remorse over past times to my eye.

Remember "Laugh-In" with Dan and Dick, Artie, Goldie, Ruth?

John

On Thu, 18 Aug 2005 12:25:59 -0400, Fred W4JLE wrote:

> At least in the day, women looked like women with hips and soft curves.
> Today the "ideal" woman looks like a young boy, no shape and a hard body...
> Yuk!
>
> And to think it all started with Twiggy.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:pan.2005.08.18.14.57.10.881579@gmail.com...
>> Ham op:
>>
>> You suppose I am going to end up wishing that, and all too soon?
>>
>> As long as I was wishing I was younger, I was really concentrating on 21!
>> There was something about the girls back then I liked... <grin>

4427. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 16:35:38 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6eacd$4304b913$97d55936$11756@ALLTEL.NET>
Source record: 71695

One problem you might look at aside from all the other great suggestions is to look at how your radio voltage is derived. Most trucks are 24 volt and the radios 12 volt.

Are you tapping at the junction of the two twelve volt batteries or does your truck use a 24 to 12 volt converter? These are usually really noisy from an electrical standpoint.

"Stephen Parry" <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t> wrote in message news:24m8g110uk3mj99burij3c18d8oe7eig5t@4ax.com...
> Hi folks, first let me apologise for not lurking, or even reading a
> FAQ (I did look and did not find). I know that radio amateurs are a
> helpful and friendly bunch, so here goes.
> From the UK, for historical reasons, the BBC broadcasts programmes on
> Long wave, specifically 1500 metres (198 Khz???). I drive a truck on
> the continent of Europe, and would love to listen to this service
> whilst on the road (for the cricket!). I know that the signal is
> there, and of sufficient strength, as I can receive it OUTSIDE the
> truck on an ancient "portable" Inside the steel box (cab) however, too
> much noise/too little signal to be useful. The fitted radio has LW,
> but again cannot be used for the noise. Could anyone please point me
> to some answers to the following:
> Antennae: Could I build (buy) some kind of antenna specifically to
> receive this emission?
> (My old radio has a socket labelled "AM antenna").
> Could I build a receiver tuned only to this freq., with no need for a
> speaker (run the sound in at headphone type power) that I could
> hang/bolt outside the truck (on the roof?), with its own battery and
> aerial? If so could someone point me to a diagram of such a beastie?

4428. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 16:38:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7f5a8$4304b9ce$97d55936$11891@ALLTEL.NET>
Source record: 71696

Richard, can one drive far enough in Europe that the drive time would allow listening to an entire cricket match? I mean here in the states it might be possibe, say from New York to Texas etc...

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:1850-4304AF2D-210@storefull-3257.bay.webtv.net...
> Stephen Parry wrote:
> "I drive a truck on the continent of Europe, and would love to listen to
> this service on the road for cricket."

4429. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 16:41:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d8ab7$4304ba86$97d55936$12035@ALLTEL.NET>
Source record: 71697

As most modern big trucks are fiberglass, the bonding is moot.

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:1850-4304AF2D-210@storefull-3257.bay.webtv.net...
> are under the hood, and their radiation should be kept under the hood by
> the metal surrounding them. All such metal pieces should be bonded
> together to keep the trap they form closed.
>
> All conductors coming through or under the firewall should be well
> grounded or bypassed with capacitors at the firewall. The exhausr pipe

4430. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 16:53:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <82efc$4304bd4e$97d55936$12564@ALLTEL.NET>
Source record: 71698

Even worse John is what men have been turned into.

Check out the "sensitive" Bounty towel guy. If he wouldn't suck a dick,
surly he would hold it in his mouth until the swelling went down.

Men have fallen for the bull crap that women want a sensitive guy, when they
really want a dangerous guy.

The little blonde girl shuns the sensitive guy she says she wants and hooks
up with the dangerous ghetto crack head.

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pan.2005.08.18.16.34.50.511112@gmail.com...
> Fred:
>
> You bring a tear of remorse over past times to my eye.
>
> Remember "Laugh-In" with Dan and Dick, Artie, Goldie, Ruth?
>
> John
>
> On Thu, 18 Aug 2005 12:25:59 -0400, Fred W4JLE wrote:
>
> > At least in the day, women looked like women with hips and soft curves.
> > Today the "ideal" woman looks like a young boy, no shape and a hard
body...
> > Yuk!
> >
> > And to think it all started with Twiggy.
> >
> > "John Smith" <assemblywizard@gmail.com> wrote in message
> > news:pan.2005.08.18.14.57.10.881579@gmail.com...
> >> Ham op:
> >>
> >> You suppose I am going to end up wishing that, and all too soon?
> >>
> >> As long as I was wishing I was younger, I was really concentrating on
21!
> >> There was something about the girls back then I liked... <grin>
>

4431. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 17:06:02 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.18.17.05.25.433058@gmail.com>
Source record: 71699

Fred:

Having a "blatantly honest day" today, are we?

But yes, I can agree in spirit with most of that, human psychology in a
sane mind is a trip, toss in a bit of "high-strangeness" and things really
get weird.

John

On Thu, 18 Aug 2005 12:53:37 -0400, Fred W4JLE wrote:

> Even worse John is what men have been turned into.
>
> Check out the "sensitive" Bounty towel guy. If he wouldn't suck a dick,
> surly he would hold it in his mouth until the swelling went down.
>
> Men have fallen for the bull crap that women want a sensitive guy, when they
> really want a dangerous guy.
>
> The little blonde girl shuns the sensitive guy she says she wants and hooks
> up with the dangerous ghetto crack head.
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:pan.2005.08.18.16.34.50.511112@gmail.com...
>> Fred:
>>
>> You bring a tear of remorse over past times to my eye.
>>
>> Remember "Laugh-In" with Dan and Dick, Artie, Goldie, Ruth?
>>
>> John
>>
>> On Thu, 18 Aug 2005 12:25:59 -0400, Fred W4JLE wrote:
>>
>> > At least in the day, women looked like women with hips and soft curves.
>> > Today the "ideal" woman looks like a young boy, no shape and a hard
> body...
>> > Yuk!
>> >
>> > And to think it all started with Twiggy.
>> >
>> > "John Smith" <assemblywizard@gmail.com> wrote in message
>> > news:pan.2005.08.18.14.57.10.881579@gmail.com...
>> >> Ham op:
>> >>

>> >> You suppose I am going to end up wishing that, and all too soon?
>> >>
>> >> As long as I was wishing I was younger, I was really concentrating on
> 21!
>> >> There was something about the girls back then I liked... <grin>
>>

4432. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 17:33:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124386542_4133@spool6-east.superfeed.net>
Source record: 71700

Fred W4JLE wrote:
> At least in the day, women looked like women with hips and soft curves.
> Today the "ideal" woman looks like a young boy, no shape and a hard body...
> Yuk!

Hey Fred, send your discards over to my place. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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4433. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 17:51:39 UTC
From: richardharrison@webtv.net
Message-ID: <884-4304CAAB-67@storefull-3258.bay.webtv.net>
Source record: 71701

Fred, W4JLE raised a number of intresting points. DC to DC converters are switching types to get high efficiency and this can generate many harmonics. If not suppressed, as many converters are, this causes much noise. The solution is to use the proper converter if required.

Yes England can be well received all over the European continent. The transmissions are powerful and decline only about 6 dB every time distance from the transmitter is doubled after the first 1.5 km from the 200 KHz transmitter.

The questioner referred to his truck cab as a "steel box". I accept his word. However, I once had a Corvette with a fiberglass body. The ignition system came well shielded and bypassed. The underside of the hood was equipped with a fibergaass blanket for heat control and the blanket was faced with aluminum foil for radio frequency control. It was grounded. Trucks must use something similar if they have spark ignition systems.

The Corvette`s Delco radio only had medium wave AM and VHF FM reception. Both were satisfactorily quiet. Screams during acceleration and sudden stops were the only disconcerting noises.

Best regatrds, Richard Harrison, KB5WZI

4434. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 18:04:44 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <S54Ne.7530$rc6.4366@fe03.lga>
Source record: 71702

Having said that it's a poor inverted V, it does a great job as a flat top.
I've worked quite a bit of DX on 75 and 40 with my G5RV at 20'.

Dave - W5GT

"W5GT" <w5gt@arrl.net> wrote in message
news:Q3UMe.52881$vb3.29097@fe07.lga...
> I've had poor luck even using the G5RV as an inverted V.
>
> Dave - W5GT
>
> "Frank" <ve6cb@nospam.telus.net> wrote in message
> news:iXIMe.184795$9A2.66584@edtnps89...
> > "News Xtra" <jdekker@xtra.co.nz> wrote in message
> > news:LetMe.3398$iM2.312159@news.xtra.co.nz...
> > > Guy. My best option is to install a G5VR but having one half bend back
> 90
> > > degrees horizontally so that when you look down from the top it is L
> > > shaped.
> > > My question is, will this degrade performance very much and in what
way.
> > > Many thanks and regards,
> > > John ZL2TTM
> >
> > Need more information: How high is the antenna, what type of
transmission
> > line do you plan on using, and what frequencies will it be used on?
> >
> > Bending the antenna will reduce the real part of the input impedance,
thus
> > increasing transmission line losses. It will also tend to increase its
> > directivity in the direction of the "vee".
> >
> > The G5RV antenna tends to exhibit higher transmission line losses. See
> the
> > extensive analysis at www.vk1od.net
> >
> > Suggest you obtain the free download of EZNEC from www.eznec.com then
you
> > can analyze the antenna for yourself. Also there are many free programs
> > available for transmission line analysis. Probably Reg (G4FGQ) has one
> for
> > free.
> >
> > Regards,

> >
> > Frank (VE6CB)
> >
> >
>
>

4435. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 18:33:03 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <5vk9g11k0vbutevc4mn4fqa4ak08b9iagi@4ax.com>
Source record: 71703

On Thu, 18 Aug 2005 12:51:39 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Fred, W4JLE raised a number of intresting points. DC to DC converters
>The questioner referred to his truck cab as a "steel box". I accept his
>word. However, I once had a Corvette with a fiberglass body. The
>ignition system came well shielded and bypassed. The underside of the
>hood was equipped with a fibergaass blanket for heat control and the
>blanket was faced with aluminum foil for radio frequency control. It was
>grounded. Trucks must use something similar if they have spark ignition
>systems.
>
>The Corvette`s Delco radio only had medium wave AM and VHF FM reception.
>Both were satisfactorily quiet. Screams during acceleration and sudden
>stops were the only disconcerting noises.
>
>Best regatrds, Richard Harrison, KB5WZI

Richard, I don't know anyone working in the technical area of radio transmission ever earning enough to enjoy a Corvette. Did you have a large inheritance?

Walt, W2DU

4436. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 19:22:54 UTC
From: richardharrison@webtv.net
Message-ID: <16027-4304E00E-117@storefull-3251.bay.webtv.net>
Source record: 71704

Walter, W2DU wrote:
"Did you have a large inheritance?"

No big windfall. I worked in Europe on a good salery for years. After the first two, all I had to do was stay away rrom the U.S.A. and my salery was tax-free. Then I investerd for the long term in some unspectacular stocks with rising earmimgs and stock ptices. For fun I bought some hot short term stocks too. I won some and I lost some, but you only have to make one killing to pay for the losses. Diversification is the key to staying in the game. Timing the market is highly unlikely. So is reliable information unless it is first-hand.

I could tell you that Motorola is cash-rich and is buying back anout 10% of its stock, but the Galvins are gone (except for Christopher) so the stock is questionable. The management must think the stock is a good investment or they shouldn`t be buying it. Who knows?

Best regards, Richard Harrison, KB5WZI

4437. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 22:13:31 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <1v1ag1d5pfb3h23ijk237j924j8l6r8adi@4ax.com>
Source record: 71705

On Thu, 18 Aug 2005 14:22:54 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Walter, W2DU wrote:
>"Did you have a large inheritance?"
>
>No big windfall. I worked in Europe on a good salery for years. After
>the first two, all I had to do was stay away rrom the U.S.A. and my
>salery was tax-free. Then I investerd for the long term in some
>unspectacular stocks with rising earmimgs and stock ptices. For fun I
>bought some hot short term stocks too. I won some and I lost some, but
>you only have to make one killing to pay for the losses. Diversification
>is the key to staying in the game. Timing the market is highly unlikely.
>So is reliable information unless it is first-hand.
>
>I could tell you that Motorola is cash-rich and is buying back anout 10%
>of its stock, but the Galvins are gone (except for Christopher) so the
>stock is questionable. The management must think the stock is a good
>investment or they shouldn`t be buying it. Who knows?
>
>Best regards, Richard Harrison, KB5WZI

Just kidding, Richard, but I see you have done very well.

Walt

4438. indirizzo sito

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 22:56:47 UTC
From: Giordano de Marchi -Station Dance <giordanodemarchi@stationdance.com>
Message-ID: <Pm8Ne.81899$fm.5546143@news4.tin.it>
Source record: 71706

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grazie per l'attenzione
--
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Presidente- Resp.le operativo
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telecomunicazioni in emergenza
tel h24 333.7178064
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4439. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 22:58:15 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <43051245.176924233@news.blueyonder.co.uk>
Source record: 71707

On Thu, 18 Aug 2005 12:25:59 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Today the "ideal" woman looks like a young boy, no shape and a hard body...
>Yuk!

Not seem many of them outside California when I've visited the States!

Everywhere else they mostly look HUGE!

Peter, G3PHO

4440. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 23:19:25 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.18.23.18.26.631041@gmail.com>
Source record: 71709

Peter:

It is a plague of biblical proportions! You should pity us!

Fat women are falling from the sky and littering the USA (men too!), it is horrible! (and, it affects California too...)

We gnash out teeth and scream in agony, and petition the gods with the cry, "WHAT DID WE DO TO DESERVE THIS ABOMINATION AND FOUL PUNISHMENT?"--no relief is granted us from our suffering... <tear-on-cheek>

John

On Thu, 18 Aug 2005 22:58:15 +0000, Peter wrote:

> On Thu, 18 Aug 2005 12:25:59 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>>Today the "ideal" woman looks like a young boy, no shape and a hard body...
>>Yuk!
>
>
> Not seem many of them outside California when I've visited the States!
>
> Everywhere else they mostly look HUGE!
>
> Peter, G3PHO

4441. Re: indirizzo sito

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-18 23:29:47 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndga6fb.94h.bit-bucket@shell.config.com>
Source record: 71708

```
On Thu, 18 Aug 2005 22:56:47 GMT, Giordano de Marchi -Station Dance wrote:
> provvisoriamente il sito ufficiale
> dell'UNITA ' OPERATIVA RADIOEMERGENZE BERGAMO PROTEZIONE CIVILE
> ï¿½ stato spostato su http://www.uor.altervista.org
^^^^^^^^^^
"al-ter vis-ta"? Is that a New York search engine?
```

4442. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 01:11:51 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <12e11$4305323b$97d55936$32761@ALLTEL.NET>
Source record: 71710

Hey John! There not fat, just fluffy. Us rednecks like em with some meat on their bones. You can have all the Barbi Doll clones that infest the land of fruits and nuts.

"John Smith" <assemblywizard@gmail.com> wrote in message news:pan.2005.08.18.23.18.26.6 31041@gmail.com...
> Peter:
>
> It is a plague of biblical proportions! You should pity us!
>
> Fat women are falling from the sky and littering the USA (men too!), it is
> horrible! (and, it affects California too...)
>
> We gnash out teeth and scream in agony, and petition the gods with the
> cry, "WHAT DID WE DO TO DESERVE THIS ABOMINATION AND FOUL PUNISHMENT?"--no
> relief is granted us from our suffering... <tear-on-cheek>
>
> John
>
> On Thu, 18 Aug 2005 22:58:15 +0000, Peter wrote:
>
> > On Thu, 18 Aug 2005 12:25:59 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> > wrote:
> >
> >>Today the "ideal" woman looks like a young boy, no shape and a hard body...
> >>Yuk!
> >
> >
> > Not seem many of them outside California when I've visited the States!
> >
> > Everywhere else they mostly look HUGE!
> >
> > Peter, G3PHO
>

4443. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 01:16:37 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <VpaNe.563$zD3.292@newssvr29.news.prodigy.net>
Source record: 71711

Peter wrote:
> On Thu, 18 Aug 2005 12:25:59 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>Today the "ideal" woman looks like a young boy, no shape and a hard body...
>>Yuk!
>
>
>
> Not seem many of them outside California when I've visited the States!
>
> Everywhere else they mostly look HUGE!
>
> Peter, G3PHO

California women _are_ far better looking than the rest. It may be
because many of them refrain from eating too much. Most of them are
superior in any event.
73,
Tom Donaly, KA6RUH

4444. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 01:29:53 UTC
From: richardharrison@webtv.net
Message-ID: <5062-43053611-340@storefull-3253.bay.webtv.net>
Source record: 71712

Fred, W4JLE wrote:
"Today the "ideal" woman looks like a young boy, no shape and a hard body."

Beauty is in the eye of the beholder.

The skinny woman reminds me of Louis Prima`s selection from Capitol Records T836, "Call of the Wildest". The selection is "Closest to the Bone". We had Louis Prima V-Disks aboard our ship during WW-2. They were about the most popular of all our disks. With today`s "correctness" Louis would be relegated to V-Disks or Vegas. He was a huge hit in both places.

In Louie`s lyric, "the nearer the bone, the sweeter the meat. When his sweetie drinks a glass of wine, she looks just like a thermometer", and other crazy stuff. Louis Prima was one of a kind. We could use some of his fun and musicianship today. His Cornet would compete with Louis Armstrong or Harry James. His orchestra could compete too. Sam Butera`s Saxophone was competition for Tex Beneke. Too bad the great music and entertainers are almost gone.

Best regards, Richard Harrison, KB5WZI

4445. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 02:03:51 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2c48c$43053e13$97d55936$4427@ALLTEL.NET>
Source record: 71713

Back in the day, when I was a young navy officer, I had my share of liasions with the ladies. One thing I noticed was that those women who deny themselves the pleasure of food, denied themselves in other pleasures as well.

It evolved in to a hard fast rule that if she ordered "only a salad, I am on a diet" she was taken home right after dinner and removed from future consideration.

The women that were the most enjoyable in all aspects can be characterized by Annette Funachello. I actually got to meet her once as I used to go out with Candy Johnson. You might remember her as the short haired blonde dancer with the fringed outfits in all the beach movies.

As the song goes "Those were the days my friend"

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:5062-43053611-340@storefull-3253.bay.webtv.net...
> Beauty is in the eye of the beholder.

4446. Re: indirizzo sito

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 02:41:47 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43054719.6DD3A76D@shaw.ca>
Source record: 71714

Allodoxaphobia wrote:
>
> On Thu, 18 Aug 2005 22:56:47 GMT, Giordano de Marchi -Station Dance wrote:
> > provvisoriamente il sito ufficiale
> > dell'UNITA ' OPERATIVA RADIOEMERGENZE BERGAMO PROTEZIONE CIVILE
> > ï¿½ stato spostato su http://www.uor.altervista.org
> ^^^^^^^^^^
> "al-ter vis-ta"? Is that a New York search engine?

Check it out -- it's legitimate!

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4447. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 02:48:31 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43054880$0$22210$39cecf19@news.twtelecom.net>
Source record: 71715

Richard Harrison wrote:

> Beauty is in the eye of the beholder.
>
> The skinny woman reminds me of Louis Prima`s selection from Capitol
> Records T836, "Call of the Wildest". The selection is "Closest to the
> Bone". We had Louis Prima V-Disks aboard our ship during WW-2. They were
> about the most popular of all our disks. With today`s "correctness"
> Louis would be relegated to V-Disks or Vegas. He was a huge hit in both
> places.
>
> In Louie`s lyric, "the nearer the bone, the sweeter the meat. When his
> sweetie drinks a glass of wine, she looks just like a thermometer", and
> other crazy stuff. Louis Prima was one of a kind. We could use some of
> his fun and musicianship today. His Cornet would compete with Louis
> Armstrong or Harry James. His orchestra could compete too. Sam Butera`s
> Saxophone was competition for Tex Beneke. Too bad the great music and
> entertainers are almost gone.
>
> Best regards, Richard Harrison, KB5WZI

Angelina......

tom
K0TAR

4448. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 02:58:59 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43054af4$0$32201$39cecf19@news.twtelecom.net>
Source record: 71716

Tom Donaly wrote:

> California women _are_ far better looking than the rest. It may be
> because many of them refrain from eating too much. Most of them are
> superior in any event.
> 73,
> Tom Donaly, KA6RUH

Except for the serious problem of the nutball factor out there, I agree.
I lived in Anaheim for 7 months while working on a Honeywell/Ericsson
project in the late 80s, and I wouldn't take one of those women without
a 110% money back guarantee.

tom
K0TAR

4449. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 03:20:21 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43054ff6$0$32204$39cecf19@news.twtelecom.net>
Source record: 71717

Tom Ring wrote:

> Except for the serious problem of the nutball factor out there, I agree.
> I lived in Anaheim for 7 months while working on a Honeywell/Ericsson
> project in the late 80s, and I wouldn't take one of those women without
> a 110% money back guarantee.

And to be fair, the men are very screwed up, too.

tom
K0TAR

4450. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 03:29:18 UTC
From: Crazy George <munsch@atglobal.net>
Message-ID: <43055787_4@news1.prserv.net>
Source record: 71718

Richard:

You should be advised that modern semiconductor driven diesel injectors are noisier than Kettering ignition systems.
DIN and the rest of the European regulatory bunch have really clamped down on spark fired ignition noise, but apparently
Diesels have escaped their attention.

--
Crazy George
The attglobal.net address is a SPAM trap. Please change that part to: att<dot>biz properly formatted.
"Richard Harrison" <richardharrison@webtv.net> wrote in message news:884-4304CAAB-67@storefull-3258.bay.webtv.net...
> Fred, W4JLE raised a number of intresting points. DC to DC converters
> are switching types to get high efficiency and this can generate many
> harmonics. If not suppressed, as many converters are, this causes much
> noise. The solution is to use the proper converter if required.
>
> Yes England can be well received all over the European continent. The
> transmissions are powerful and decline only about 6 dB every time
> distance from the transmitter is doubled after the first 1.5 km from the
> 200 KHz transmitter.
>
> The questioner referred to his truck cab as a "steel box". I accept his
> word. However, I once had a Corvette with a fiberglass body. The
> ignition system came well shielded and bypassed. The underside of the
> hood was equipped with a fibergaass blanket for heat control and the
> blanket was faced with aluminum foil for radio frequency control. It was
> grounded. Trucks must use something similar if they have spark ignition
> systems.
>
> The Corvette`s Delco radio only had medium wave AM and VHF FM reception.
> Both were satisfactorily quiet. Screams during acceleration and sudden
> stops were the only disconcerting noises.
>
> Best regatrds, Richard Harrison, KB5WZI
>

4451. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 05:08:10 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11gaqa36gpme616@corp.supernews.com>
Source record: 71719

And most of them wouldn't have dated you on a $ten grand bet.

Jim

"Tom Ring" <news0002@taring.org> wrote in message
news:43054af4$0$32201$39cecf19@news.twtelecom.net...
>> Tom Donaly, KA6RUH
>
> Except for the serious problem of the nutball factor out there, I agree. I
> lived in Anaheim for 7 months while working on a Honeywell/Ericsson
> project in the late 80s, and I wouldn't take one of those women without a
> 110% money back guarantee.
>
> tom
> K0TAR

4452. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 11:13:03 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <3lebg15lu5ftq1m90lacu8v97t9e3n85k2@4ax.com>
Source record: 71720

The fitted radio, thanks to my skinflint boss is a "bare minimum"
Mercedes branded unit, actually made by Becker, I believe. It is
therefore a good quality, if basic, piece of kit. The antenna is I
guess from the same "box" ie standard quality etc. FM reception, for
instance is OK. All the truck electrics, including the radio are 24V,
albeit from 2 X 12V batteries in series. The built in unit is JUST
tolerable on AM when there is a really good signal ie in the UK, if
the signal is at all weak (I am guessing here), other noise dominates
ie a rhythmic low frequency "fart" noise, (I guess this comes from the
tachograph, stupidly fitted next to the radio) A whine, related to
engine revs (alternator?? fuel pump??) horrible noises whenever I pass
under a bridge or anywhere near power pylons or railway lines.

The portable radio (with its own batteries 8 X D size = ï¿½24.00 or
approx $40.00 the set) has markedly better Rx even when just outside
the cab, on the step for instance, and strangely seems not to be as
badly affected by the bridges and pylons

On Thu, 18 Aug 2005 07:59:22 -0400, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

>Dear Mr. Stephen Parry:
> It is possible that the truck (it is one truck?) produces too much noise
>at 198 kHz. An important test is to note if your portable radio tuned to
>198 kHz receives a satisfactory signal-to-noise ratio when the truck is
>running all of its equipment. Try placing the portable radio next to the
>truck in places where one might attach an antenna.
>
> The fitted radio, which has LW, must have an outside antenna. Is that
>antenna in good condition?
>
> Your solution might be to reduce the noise produced by the truck.
>Antennas for LW suitable for mounting on a truck do exist, however they will
>not help if they receive too much noise.

Could describe one of these please??
>
> Let the group know the results of your testing. Tell us more about the
>truck. Regards, Mac

4453. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 11:29:35 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <enfbg1tkukahjnk4ims356m9doaa5v4u58@4ax.com>
Source record: 71721

On Thu, 18 Aug 2005 10:54:21 -0500, richardharrison@webtv.net (Richard Harrison) wrote:
Thank-you Richard for the prompt reply, which I am afraid I understood little of (! my fault not yours)

>Stephen Parry wrote:
>"I drive a truck on the continent of Europe, and would love to listen to
>this service on the road for cricket."
>
>The Blau Punkt in my Karman Ghia got such signals all over the
>continent, and I`m just one of millions.
>
>Mr Parry did not say if his truck is Diesel powered as most European
>trucks are.
Yes Diesel power, so no HT coil, plugs, distributor etc
>If so, he is free of his own ignition noise, usually the
>hardest to suppress.
Ok.
> He still may have alternator whine (perhaps a bad
>diode)
Yes I think I do have alternator noise could you explain what I might do ?
>and he may have static discharges from things which rotate. Some
>are under the hood, and their radiation should be kept under the hood by
>the metal surrounding them. All such metal pieces should be bonded
>together to keep the trap they form closed.
>
>All conductors coming through or under the firewall should be well
>grounded or bypassed with capacitors at the firewall. The exhausr pipe
>may need bonding here also.
I think we might have been divided by our common language! My truck has no "hood" as such http://www.duet-duda.mojagielda.pl/?9

>Maybe there is a gasoline powered rerfrigeration compressor generating
>ignition noise. Standard resistance wires, capacitors, and bondibg
>should silence that.
No 'fridge
>Springs can be used in wheel hubs to ground out static.
I did not understand this part
>
>All the metal parts of the truck may have to be bonded together.
Or this
>
>My Blau Punkt was equipped with a good sized choke coil in its battery
>lead. It also had an internal "spark-plate" capacitor, and these rid the

>power source of radio noise.
Or this
>
>The telescoping antenna (about 50 years ago) could be extended to about
>100 inches, which made the Karman Ghia quite a sight, but it worked. The
>antenna cable was the standard high-impedance small inner-wire coaxial
>type. This must be intact and perfect to keep the signal on track and
>the noise out. Though German, it used Motorola connectors.
>
>Radio frequencies decline very rapidly near their source. This is your
>friend when the source causes interference.
Sorry, this too!
>Keep the antenna away from
>and shielded from sources of interferebce.
When you say "bonding" I am guessing this means a clean earth return
to battery?
>
>In 1935, Alfred A, Ghirardi (E.E.) wrote:
>"---an aerial must be installed in (or on) the roof, under the running
>boards or chassis of the car, or in some other locations.
>---Considerable attention must be given to the ignition and other
>electrical wiring of the car in order to eliminate all electrical
>interference which it produces in the receiver."
>
>Noise problems are more often caused by the vehicle than by the receiver
>but some receivers may not be shielded and filtered well enough. If the
>truck cab has its pieces bonded together and all pass-through conductors
>are well bonded or bypassed, it should be electrically quiet. You should
>be able to use a portable radio in there with proper placement or an
>outside antenna.
>
>Ghirardi devotes an entire chapter to automobile radio installation in
>"Modern Radio Servicing". Car radios are hot in the summer months while
>home radios are not.
>
>Best regards, Richard Harrison, KB5WZI

4454. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 11:34:20 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <llgbg151tt1u2q3dlok9qjcmp6650tnm0a@4ax.com>
Source record: 71722

London - Vienna return more than enough!

On Thu, 18 Aug 2005 12:38:44 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Richard, can one drive far enough in Europe that the drive time would allow
>listening to an entire cricket match? I mean here in the states it might be
>possibe, say from New York to Texas etc...
>
>"Richard Harrison" <richardharrison@webtv.net> wrote in message
>news:1850-4304AF2D-210@storefull-3257.bay.webtv.net...
>> Stephen Parry wrote:
>> "I drive a truck on the continent of Europe, and would love to listen to
>> this service on the road for cricket."
>

4455. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 11:36:35 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <o0hbg1drbig2hlp1lbaldp52flomaeebd1@4ax.com>
Source record: 71723

On Thu, 18 Aug 2005 10:16:30 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

I was referring to electrical type noise
>Stephen Parry wrote:
>> Inside the steel box (cab) however, too
>> much noise/too little signal to be useful.
>
>Is the noise coming out of the radio speaker or is
>it the physical noise level that is the problem?

4456. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 11:40:52 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <n5hbg15m0b1smp0svidqo61a1pqt50p1qr@4ax.com>
Source record: 71724

On Thu, 18 Aug 2005 12:35:38 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
Fred I think you must be Psychic!
current system is all 24V, yesterday went out and paid ï¿½35.00 for a
DC/DC dropper so I could fit a car radio... are you saying that this
will make things worse?
>One problem you might look at aside from all the other great suggestions is
>to look at how your radio voltage is derived. Most trucks are 24 volt and
>the radios 12 volt.
>
>Are you tapping at the junction of the two twelve volt batteries or does
>your truck use a 24 to 12 volt converter? These are usually really noisy
>from an electrical standpoint.
>
>"Stephen Parry" <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t> wrote in message
>news:24m8g110uk3mj99burij3c18d8oe7eig5t@4ax.com...
>> Hi folks, first let me apologise for not lurking, or even reading a
>> FAQ (I did look and did not find). I know that radio amateurs are a
>> helpful and friendly bunch, so here goes.
>> From the UK, for historical reasons, the BBC broadcasts programmes on
>> Long wave, specifically 1500 metres (198 Khz???). I drive a truck on
>> the continent of Europe, and would love to listen to this service
>> whilst on the road (for the cricket!). I know that the signal is
>> there, and of sufficient strength, as I can receive it OUTSIDE the
>> truck on an ancient "portable" Inside the steel box (cab) however, too
>> much noise/too little signal to be useful. The fitted radio has LW,
>> but again cannot be used for the noise. Could anyone please point me
>> to some answers to the following:
>> Antennae: Could I build (buy) some kind of antenna specifically to
>> receive this emission?
>> (My old radio has a socket labelled "AM antenna").
>> Could I build a receiver tuned only to this freq., with no need for a
>> speaker (run the sound in at headphone type power) that I could
>> hang/bolt outside the truck (on the roof?), with its own battery and
>> aerial? If so could someone point me to a diagram of such a beastie?
>

4457. Using 450ohm ladder line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 12:24:13 UTC
From: Giovanni <gsantin@mclink.it>
Message-ID: <1124454253.543768.193870@z14g2000cwz.googlegroups.com>
Source record: 71725

I have the possibility to run a 450hom ladder line from the rooftop
down to the shack in the basement of the house, through an unused
chimney made of a steel pipe of about 1 foot of diameter and about 20
feet long. If the multiband dipole antenna to be feeded is balanced,
the feed line should not radiate so it should not matter if it is
shielded.
A balanced antenna tuner in the shack should take care of any impedence
variation of the ladder line.

Advice on this implementation will be very much appreciated.

Many thanks,
Giovanni IW0BJR

4458. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 12:27:53 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4305d04a$0$22206$39cecf19@news.twtelecom.net>
Source record: 71626

Crazy George wrote:

> Richard:
>
> You should be advised that modern semiconductor driven diesel injectors are noisier than Kettering ignition systems.
> DIN and the rest of the European regulatory bunch have really clamped down on spark fired ignition noise, but apparently
> Diesels have escaped their attention.
>
> --
> Crazy George

Only too true. When mobile I can hear Mpls buses about 100 feet away over the S5 downtown noise on 20 meters. They make an interesting tone pattern that I surmise may have to do with resonances in the various lengths of the wiring harness involved. I've heard much the same from some, but not all, diesel trucks.

tom
K0TAR

4459. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 12:32:25 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4305d159$0$32205$39cecf19@news.twtelecom.net>
Source record: 71627

Stephen Parry wrote:

> The fitted radio, thanks to my skinflint boss is a "bare minimum"
> Mercedes branded unit, actually made by Becker, I believe. It is
> therefore a good quality, if basic, piece of kit. The antenna is I
> guess from the same "box" ie standard quality etc. FM reception, for
> instance is OK. All the truck electrics, including the radio are 24V,
> albeit from 2 X 12V batteries in series. The built in unit is JUST
> tolerable on AM when there is a really good signal ie in the UK, if
> the signal is at all weak (I am guessing here), other noise dominates
> ie a rhythmic low frequency "fart" noise, (I guess this comes from the
> tachograph, stupidly fitted next to the radio) A whine, related to
> engine revs (alternator?? fuel pump??) horrible noises whenever I pass
> under a bridge or anywhere near power pylons or railway lines.
>

I wonder if the radio has a trimmer capacitor like many of the US AM BCB radios have had over the years. You would normally have to pull the radio from the dash and inspect it to see. If it does, it may help a bit to tweak it.

What is the model number of the unit? Maybe we can find an online user's manual.

tom
K0TAR

4460. Re: Using 450ohm ladder line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 12:46:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124455743_2023@spool6-east.superfeed.net>
Source record: 71628

Giovanni wrote:
> I have the possibility to run a 450hom ladder line from the rooftop
> down to the shack in the basement of the house, through an unused
> chimney made of a steel pipe of about 1 foot of diameter and about 20
> feet long.

The ladder-line needs to be centered in that 1 foot diameter
steel pipe. Otherwise, the fields are likely to become unbalanced
and losses occur. 6 inch spacing away from any conductive medium
is just about right.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4461. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 13:32:32 UTC
From: richardharrison@webtv.net
Message-ID: <2776-4305DF70-394@storefull-3256.bay.webtv.net>
Source record: 71630

Crazy George wrote:
"You should be advised that modern semiconductors driven diesel injectors are noisier than Kettering ignition systems."

I didn`t have a clue. My experience is out of date. Injectors were timed by a camshaft which generated little electrical noise.

Methods used to control radiation from Kettering ignition systems and their solid-state derivatives should work on fuel injection timing systems too.

The plan is to keep the electrical noise within a screened enclosure and not let it out. It is hard to believe there is no DIN specification for radiation from electrically timed fuel injectors. In the old days ther was a specification for about everything.

Best regards, Richard Harrison, KB5WZI

4462. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 13:38:21 UTC
From: Stephen Parry <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t>
Message-ID: <k3obg1lqo43ae5kote505qp3cotp9n94jd@4ax.com>
Source record: 71629

On Fri, 19 Aug 2005 07:32:25 -0500, Tom Ring <news0002@taring.org>
wrote:

Model id Mercedes-Benz badged Truckline CC25 made I think by Becker
>I wonder if the radio has a trimmer capacitor like many of the US AM BCB
>radios have had over the years. You would normally have to pull the
>radio from the dash and inspect it to see. If it does, it may help a
>bit to tweak it.
>
>What is the model number of the unit? Maybe we can find an online
>user's manual.
>
>tom
>K0TAR

4463. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 14:02:42 UTC
From: cut this out <"lionelcarter\\@(cut this out)lineone.net">
Message-ID: <4305e599_1@mk-nntp-1.news.uk.worldonline.com>
Source record: 71631

Yes, I can imagine it. But I don't believe it.

4464. Re: Using 450ohm ladder line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 14:22:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de4pva$9r9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71632

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1124455743_2023@spool6-east.superfeed.net...
> Giovanni wrote:
> > I have the possibility to run a 450hom ladder line from the
rooftop
> > down to the shack in the basement of the house, through an unused
> > chimney made of a steel pipe of about 1 foot of diameter and about
20
> > feet long.
>
> The ladder-line needs to be centered in that 1 foot diameter
> steel pipe. Otherwise, the fields are likely to become unbalanced
> and losses occur. 6 inch spacing away from any conductive medium
> is just about right.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
==========

There is no great need to exactly centralise the feedline inside the
pipe. The amount of radiation from the balanced feedline feeding a
balanced antenna, inside the pipe or not, will be negligble.

Loss induced in the metal pipe will also be negligible. The
resistivity of steel is very low.

With a 1 foot diameter pipe the decrease in line impedance Zo will
also be negligible.

As a precaution, if the chimney is not vertical, try to keep the same
wire of the line away from the chimney walls for appreciable lengths.
Very slowly, about every few feet, twist the line about itself.

After construction, if the line is moved about and there is no
difference in the tuner setting then there's nothing to worry about.

Reg, G4FGQ

4465. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 15:36:08 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4305fc67$0$32201$39cecf19@news.twtelecom.net>
Source record: 71633

Well, nothing in english seems to be available. There is a link to the
German ebay that will sell me one. There also seems to be something in
Russian, but I can't do much with that.

tom
K0TAR

Stephen Parry wrote:

> On Fri, 19 Aug 2005 07:32:25 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
> Model id Mercedes-Benz badged Truckline CC25 made I think by Becker
>
>>I wonder if the radio has a trimmer capacitor like many of the US AM BCB
>>radios have had over the years. You would normally have to pull the
>>radio from the dash and inspect it to see. If it does, it may help a
>>bit to tweak it.
>>
>>What is the model number of the unit? Maybe we can find an online
>>user's manual.
>>
>>tom
>>K0TAR

4466. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 15:54:34 UTC
From: Jim Leder <k8cxm@spam.fuse.net>
Message-ID: <d4fd4$430600b9$48317931$15319@FUSE.NET>
Source record: 71634

Cecil, no argument. All I meant was the theory behind a G5RV is the same as an EDZ. Nothing more. The G5RV provides a better pattern than an EDZ at the expense of some gain, but basically the design criteria is the same. The original G5RV was never intended to be anything but a 20 meter antenna (at least as far as I've read). The fact that it works on other bands is just icing. I use a 'modified' G5RV, similar to what Cebik describes on one of his web pages (think it's the ZS6BKV design) and found it to be a better G5RV than the original and it's shorter. Think mine is around 94 feet long. I've also built a 20 meter EDZ (still have it rolled up in the garage) and found it to be a great antenna but the beamwidth was too narrow to live with. BTW, for what ever reason it worked really well on 15 also. My 94' antenna works well on 40,20,17,12 and part of 10. It will load on 75, but not sure how well it radiates. SWR on the other 5 bands is under 2.5:1 at resonance with 40 and 20 under 2:1.
Holy cow, I would never argue with you guys. I guess my main point is that all of these type of antennas are collinear type antennas and to get the best performance from them, they need to be in a flat top configuration. However, you work with what you have and if that dictates a Vee or L configuration, then you do it.

73's

Jim

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1124379392_4049@spool6-east.superfeed.net...
> Jim Leder wrote:
>> A G5RV is really an inefficient collinear antenna, so it needs to be a
>> flatop, not a Vee or L. Model it and you will see it is a 'long' (on 20
>> meters) Extended Double Zepp.
>
> Jim, your statement is a little confusing. I know you mean that the
> G5RV is 1/4WL too long to be called an Extended Double Zepp on 20m.
> An EDZ is a single frequency antenna. The 102' G5RV is an EDZ on 11.5
> MHz. EDZ length = 1170/F. And, you're right, G5RV's perform better as
> a flat-top.
>
> My modified G5RV performs as well as my 130' doublet fed with ladder-
> line, given the slightly different radiation patterns. I vary the
> length of the G5RV series matching section as follows:
>
> 3.8 MHz 23 ft., 7.2 MHz 35 ft., 10.125 MHz 20 ft., 14.2 Mhz 29 ft.,
> 18.14 Mhz 36 ft., 21.3 MHz 27 ft., 24.95 MHz 29 ft., 28.4 Mhz 22.5 ft.
> --
> 73, Cecil http://www.qsl.net/w5dxp

>
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> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
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4467. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 16:46:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124470215_2979@spool6-east.superfeed.net>
Source record: 71635

Jim Leder wrote:
> Holy cow, I would never argue with you guys.

Hi Jim, I was just expanding a bit on what you said,
not arguing with you. Please feel free to argue with
me anytime you think I am wrong. I only learn something
new when I'm wrong. And I won't "ploink" you for
disagreeing with me.
--
73, Cecil, http://www.qsl.net/w5dxp

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4468. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 17:17:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <bb999$4306142a$97d55936$7256@ALLTEL.NET>
Source record: 71636

Simply tap off at the junction of the two batteries. The truck series two 12 volt batteries to give you 24. Find the the junction where the plus of one is tied to the minus of the next. Tap off a wire at this point. I would fuse it at the connection point. This will provide the necessary voltage for the radio.

CAUTION! I have made the assumption that your truck has the chassis tied to the negative side of the first battery. In the event you have a positive ground truck let me know and I will tell you how to get around that problem.

"Stephen Parry" <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t> wrote in message
news:n5hbg15m0b1smp0svidqo61a1pqt50p1qr@4ax.com...
> On Thu, 18 Aug 2005 12:35:38 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
> Fred I think you must be Psychic!
> current system is all 24V, yesterday went out and paid ?35.00 for a
> DC/DC dropper so I could fit a car radio... are you saying that this
> will make things worse?
> >One problem you might look at aside from all the other great suggestions
is
> >to look at how your radio voltage is derived. Most trucks are 24 volt and
> >the radios 12 volt.
> >
> >Are you tapping at the junction of the two twelve volt batteries or does
> >your truck use a 24 to 12 volt converter? These are usually really noisy
> >from an electrical standpoint.
> >
> >"Stephen Parry" <w1a1k1o1u13@v1i1r1g1i1n1.n1e1t> wrote in message
> >news:24m8g110uk3mj99burij3c18d8oe7eig5t@4ax.com...
> >> Hi folks, first let me apologise for not lurking, or even reading a
> >> FAQ (I did look and did not find). I know that radio amateurs are a
> >> helpful and friendly bunch, so here goes.
> >> From the UK, for historical reasons, the BBC broadcasts programmes on
> >> Long wave, specifically 1500 metres (198 Khz???). I drive a truck on
> >> the continent of Europe, and would love to listen to this service
> >> whilst on the road (for the cricket!). I know that the signal is
> >> there, and of sufficient strength, as I can receive it OUTSIDE the
> >> truck on an ancient "portable" Inside the steel box (cab) however, too
> >> much noise/too little signal to be useful. The fitted radio has LW,
> >> but again cannot be used for the noise. Could anyone please point me
> >> to some answers to the following:
> >> Antennae: Could I build (buy) some kind of antenna specifically to
> >> receive this emission?
> >> (My old radio has a socket labelled "AM antenna").

> >> Could I build a receiver tuned only to this freq., with no need for a
> >> speaker (run the sound in at headphone type power) that I could
> >> hang/bolt outside the truck (on the roof?), with its own battery and
> >> aerial? If so could someone point me to a diagram of such a beastie?
> >

4469. Re: Non-techie asks for help.....

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 17:26:58 UTC
From: richardharrison@webtv.net
Message-ID: <3549-43061662-383@storefull-3255.bay.webtv.net>
Source record: 71637

Stephen Parry wrote:
"Yes I think I do have alternator noise could you explain what I might do?"

Often the first sign of diode failure is a whine in the loudspeaker of your radio which varies in pitch with engine speed.

Alternators have no commutator but use silicon diodes to make d-c from the a-c they generate. It`s usually 3-phase, using (6) diodes in (2) groups of 3 each in a full-wave rectifier. These are located inside the alternator. If any of the diodes fails, at least one of the 3 pahases quits contributing to the alternator output. Maximum output is reduced. Replace the diodes. The whine goes away and full output is restored to the alternator when required.

Stephan also wrote:
"I think we might have been divided by our common language!"

What Americans call a hood, I believe, is what the English call a bonnet. The effectiveness of a screened enclosure depends on good connections between its pieces.

In a modern diesel truck there may be noise generating electrical fuel-injection control, rotating belts which generate static discharge noise, electrical relays and contactors, and other sources of radio frequency noise.

Noise containment is one goal of the bonnet. The hinge which holds the bonnet and the latch which locks it are often inadequate in r-f continuity. Their electrical contact is not good enough.

Wheels rotate on stationary spindles and axles. Rotation can produce charge which repeatedly arcs across wheel bearings or other points. Spiral springs are made with a large diameter on one end to rest on a stationary part of the wheel assembly. The spring tapers down to a small diameter or point on its other end. This point makes contact with a hammer-on cap over the nut which holds the wheel on its spindle. The cap rotates with the wheel. So we have a conducting connection between the wheel and the non-rotating parts of the vehicle. Only extreme noise cases require these springs.

Stephen also questioned what I meant by perfect antenna cables. I once repaired rafios and my experience is that most noisy automobile receivers got that way from defective antennas and antenna cables.

The base of the antenna needs a good connection to the vehicle body, which is the other half of the antenna. The vehicle body is the

connection for the cable shield. The shield needs to be continuous to carry the signal rather than having the body carrying the signal where it may be exposed to noise currents.

I wrote:
"Keep the antenna away from and shielded from sources of interference."

When one installs an antenna, it should be placed in a quiet receiving location if possible. It should not be installed on the same side of a screen as wires carrying interference. The antenna should be installed on the outside of the truck cab where it has large exposure to the signal.

When I said bonding, I did mean a clean earth return but I was not thinking of battery current. I was thinking of r-f currents, signal and noise.

Radio frequencies don`t penetrate deeply into metal but travel on the surface. Large surface area is needed for low r-f impedance. Battery current uses the entire cross section of the metal.

Wires slung under running boards and the chassis are not much used now. Other noisy conductors may be nearby Broadcast ground waves are vertically polarized. It makes sense to use a vertical whip for reception, though almost any wire works.

Stephen`s portable likely has a loop antenna inside which makes it somewhat bidirectional in azimuth. A vehicle mey be found in any position. This makes an antenna which is nondirectional in azimuth desirable.

Best regards, Richard Harrison, KB5WZI

4470. Off topic. Statistics.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 17:45:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de55r3$9pk$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71638

Having temporarily run short of suitable radio topics to write
programs about, I came across an older program of mine which people of
your intellect might be inerested in. Play with. Or use even.

Program HYPERGEO(metric) solves an extremely wide range of important
statistical problems. Basically, it is involved with "The
Significance of the Difference Between Two Proportions". Input data
is in the form of a so-called 2-by-2 Contingency Table. Just 4
numbers.

EXAMPLE 1.
Manufacturing Quality control.
We take a relatively small random sample of N1 widgets from a large
batch of widgets and find that a number D1 of them are defective.

We then take a relatively small random sample N2 from another
manufacturer's large batch and find that that a number D2 of them are
defective.

The question arises, which manufacturer's product has the highest
quality. Bear in mind it is expensive and time-consuming to 100
percent inspect both batches. It may be agreed in advance to inspect
only a few percent of the batch sizes or just a fixed number
regardless of batch size.

So we are obliged to ask the question - from the two samples, is one
manufacturer's quality REALLY better than the other? By how mutch is
it due to the random selection of a relatively small number of
individual widgets from a batch? Probabities are clearly involved.

EXAMPLE 2.
Medicine and Health of Populations.
There has been an epidemic. A fraction of the population were
innoculated against it. Out of a sample of people who have been
innoculated a number N1 did not suffer from the disease but a number
N2 did suffer and die.

Out of a sample of people who were NOT innoculated a number N3 were
not affected by the disease but a number N4 suffered and died.

The question arises, how effective was the innoculation? It may
possibly have had adverse affects. The answer is a matter of
probability statistics. International Pharmaceuticals please note.

There must be other applications in the relatively narrow field of
radio communication, perhaps involving the randomness of noise,
crosstalk and interference. 2-by-2 Contingency Tables, just waiting

for analysis, arise all over the place.

Anyone further interested can look up the works of Sir Ronald Arthur Fisher. For example, a collection of his works can be found in - "Statistical Methods, Experimental Design and Scientific Inference". An international master, Fisher was involved with the fields of statistics, agriculture, genetics, mathematics, engineering, biology, medicine, etc. Before the age of electronic computers he devised new statistical tables such as the F-Distribution for ANOVA. He died in 1962.

Fisher's writings are works of logical plain simple English. The maths are few and don't get in the way. Like Heaviside, a revolutionary. His opinions of earlier workers are scathing.

After many years of haggling between prominent statisticians about the correct interpretation of the apparently simple 2-by-2 Contingency Table, it was Fisher's logic which ended the arguments.

Despite its simplicity, the numbers involved in the probability calculations are so large it is necessary use their logarithms to prevent numerical overload of ordinary computers.

Within the next few hours I'll make program HYPERGEO available from the following website. It would be a pity should it be lost.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

4471. Re: G5RV in horizontal L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 18:51:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de59nd$e0u$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71639

"Jim Leder" wrote
> Holy cow, I would never argue with you guys.
>
==========

Yes, its a complete waste of bandwidth.

You, the questioner, can't possibly win. Its never been known to happen.

They will deliberatly twist and distort anything you say. Then, they will deliberately twist and distort anything they have said themselves.

One or two of them, never Cecil, will resort to blackening your character and, quite unjustifiable, accuse you of lying.

But, on the whole, they are only nice ordinary human beings. It's just a matter of sorting the wheat from the chaff. ;o)

Reg.

4472. 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 20:21:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de5f0iqjf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71640

There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
transmission line.

The antenna consists of three 1/4-wave horizontal radiators spaced at
120 degee intervals.

Is the radiation pattern in the horizontal plane perfectly
omni-directional?

Reg.

4473. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 20:33:23 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <EmrNe.5601$Us5.3171@fed1read02>
Source record: 71641

"David G. Nagel" <nagel@core.com> wrote in message
news:11g1o5d9ee4586c@corp.supernews.com...
> Ed Price wrote:
>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:fbednXsE8sLxVWLfRVn-rQ@comcast.com...
>>
>>>Ed Price wrote:
>>
>>
>>>>Wes, what's the preferred scorpion killing technique; you use a hammer
>>>>or what?
>>>>
>>>
>>>I know the design and operating principles of a hammer.
>>
>>
>>
>> Are you certain? Can you produce any documentation or certification
>> regarding your competence?
>>
> I'm not the person being questioned above but I took shop class in High
> School. Passed with flying colors. Does that count?
>
> Dave N

Yep, that's good enough for me (if you still have all eight fingers and two
thumbs). <g>

--
Ed
WB6WSN
El Cajon, CA USA

4474. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 21:25:09 UTC
From: jgboyles@aol.com
Message-ID: <1124486709.945064.307680@g49g2000cwa.googlegroups.com>
Source record: 71642

Reg Edwards wrote:
> There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
> transmission line.
>
> The antenna consists of three 1/4-wave horizontal radiators spaced at
> 120 degee intervals.
>
> Is the radiation pattern in the horizontal plane perfectly
> omni-directional?
> ----
> Reg.

Hi Reg, Is the 3-phase transmitter balanced with the output current equal magnitude, and the phase angle exactly 120 degrees? Is the 3-phase antenna fed via a 3-wire transmission line, or three equal length transmission lines? Us Amateurs don't have a lot of experience with 3-wire coax. Are the horizontal radiators 1/4-wave, or 1/2 wave? If they are 1/4 wave, or 1/2 wave and spaced 120 degrees in the horizontal plane, doesn't that form an equilateral triangle? So, you are feeding a triangular antenna whose sides are 1/4-wave in the centre of each side with balanced 3-phase rf energy?
Even if you clarify this is I still won't know the answer to your question until I model the array.
Gary N4AST

4475. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 22:00:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de5kq1$g5p$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71643

<jgboyles@aol.com> wrote in message
news:1124486709.945064.307680@g49g2000cwa.googlegroups.com...
>
> Reg Edwards wrote:
> > There is a 3-phase transmitter feeding a 3-phase antenna via a
3-wire
> > transmission line.
> >
> > The antenna consists of three 1/4-wave horizontal radiators spaced
at
> > 120 degee intervals.
> >
> > Is the radiation pattern in the horizontal plane perfectly
> > omni-directional?
> > ----
> > Reg.
>
> Hi Reg, Is the 3-phase transmitter balanced with the output
current
> equal magnitude, and the phase angle exactly 120 degrees? Is the
> 3-phase antenna fed via a 3-wire transmission line, or three equal
> length transmission lines? Us Amateurs don't have a lot of
experience
> with 3-wire coax. Are the horizontal radiators 1/4-wave, or 1/2
wave?
> If they are 1/4 wave, or 1/2 wave and spaced 120 degrees in the
> horizontal plane, doesn't that form an equilateral triangle? So,
you
> are feeding a triangular antenna whose sides are 1/4-wave in the
centre
> of each side with balanced 3-phase rf energy?
> Even if you clarify this is I still won't know the answer to your
> question until I model the array.
> Gary N4AST
=====================================

The three antenna wires are like the spokes of a wheel, spaced at 120
degrees, and each 1/4-wave in length. All in the horizontal plane.

The transmission line is balanced about ground and each of the line
wires is connected to one of the three antenna elements at the center
of the wheel. There's no need to pull the line wires apart at the end
of the line.

What is the radiation pattern in the horizontal plane?

Also what is the equivalent load impedance between each of the line
wires.

Reg.

4476. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 22:50:26 UTC
From: jgboyles@aol.com
Message-ID: <1124491826.553521.218150@g44g2000cwa.googlegroups.com>
Source record: 71644

Reg Edwards wrote:
> <jgboyles@aol.com> wrote in message
> news:1124486709.945064.307680@g49g2000cwa.googlegroups.com...
> >
> > Reg Edwards wrote:
> > > There is a 3-phase transmitter feeding a 3-phase antenna via a
> 3-wire
> > > transmission line.
> > >
> > > The antenna consists of three 1/4-wave horizontal radiators spaced
> at
> > > 120 degee intervals.
> > >
> > > Is the radiation pattern in the horizontal plane perfectly
> > > omni-directional?
> > > ----
> > > Reg.
> >
> > Hi Reg, Is the 3-phase transmitter balanced with the output
> current
> > equal magnitude, and the phase angle exactly 120 degrees? Is the
> > 3-phase antenna fed via a 3-wire transmission line, or three equal
> > length transmission lines? Us Amateurs don't have a lot of
> experience
> > with 3-wire coax. Are the horizontal radiators 1/4-wave, or 1/2
> wave?
> > If they are 1/4 wave, or 1/2 wave and spaced 120 degrees in the
> > horizontal plane, doesn't that form an equilateral triangle? So,
> you
> > are feeding a triangular antenna whose sides are 1/4-wave in the
> centre
> > of each side with balanced 3-phase rf energy?
> > Even if you clarify this is I still won't know the answer to your
> > question until I model the array.
> > Gary N4AST
> =====================================
>
> The three antenna wires are like the spokes of a wheel, spaced at 120
> degrees, and each 1/4-wave in length. All in the horizontal plane.
>
> The transmission line is balanced about ground and each of the line
> wires is connected to one of the three antenna elements at the center
> of the wheel. There's no need to pull the line wires apart at the end
> of the line.

>
> What is the radiation pattern in the horizontal plane?
>
> Also what is the equivalent load impedance between each of the line
> wires.
> ----
> Reg.
Ok, I was thinking in terms of a Delta configuration, and you were
thinking of a Star Configuration. Need more time. Did you consider a
Delta (triangle) configuration when you thought this up?
Gary N4AST

4477. VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 23:29:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124494341_3289@spool6-east.superfeed.net>
Source record: 71645

http://www.livescience.com/technology/050819_fastlight.html

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4478. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-19 23:58:19 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11gcsgsdte9i2ea@corp.supernews.com>
Source record: 71646

I am not sure, but I have been wondering for years.
Seriously

It's the old question: How do you load three guy wires?
73
H.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:de5f0iqjf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
> transmission line.
>
> The antenna consists of three 1/4-wave horizontal radiators spaced at
> 120 degee intervals.
>
> Is the radiation pattern in the horizontal plane perfectly
> omni-directional?
> ----
> Reg.
>
>

4479. Re: Popular Misconceptions.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:13:00 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <43077562.267833494@news.blueyonder.co.uk>
Source record: 71647

On Thu, 18 Aug 2005 20:29:53 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Sam Butera`s
>Saxophone was competition for Tex Beneke.

Tex was a radio amateur of course...

Peter, G3PHO

4480. 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:21:58 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <PeydnRlla6c06pveRVn-tw@comcast.com>
Source record: 71648

All,

I have been using an 80 meter loaded vertical for a couple of years with moderate success. The ground system is a dozen 'untuned' radials 40 or so feet laying on the ground. The feed line is about 100 feet of RG-8 coax. The SWR in the shack is about 1.1 to 1.

I have done some research on the antenna and based on it parameters it should have a radiation resistance of about 4 Ohms. This says that the coil and ground are absorbing on the order of 45 Ohms. This is 10db performance loss.

I have limited space and the most common solutions are not available to me. From a practical perspective it would seem to me that building a 40 foot center feed loaded dipole and putting it in the attic or on the roof would probably perform somewhat better.

Is this a reasonable assumption?

Would burying the radials and connecting them to several 4 square foot buried screens substantially help the ground system?

Thanks,
Dan kb0qil

4481. Re: Removal of Morse Code from Amateur License Requirements...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:39:33 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <6LOdnZ2dnZ0s4MrOnZ2dnVbmm96dnZ2dRVn-zp2dnZ0@comcast.com>
Source record: 71649
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Cecil Moore wrote:

> Believe it or not, I have at least two areas
> of interest. :-)

That's what she said.

4482. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:42:58 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <69197$43067cb0$97d55936$20978@ALLTEL.NET>
Source record: 71650

Anyone who has ever watched Startrek knows the light speed limitation is incorrect.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:1124494341_3289@spool6-east.superfeed.net...
> http://www.livescience.com/technology/050819_fastlight.html
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4483. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:48:24 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a65c$43067df7$97d55936$21339@ALLTEL.NET>
Source record: 71651

Put a capacity hat on the top of the antenna. This will give you the most performance increase with the least effort.

"dansawyeror" <dansawyeror@comcast.net> wrote in message news:PeydnRlla6c06pveRVn-tw@comcast.com...
> All,
>
> I have been using an 80 meter loaded vertical for a couple of years with
> moderate success. The ground system is a dozen 'untuned' radials 40 or so feet

4484. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:52:48 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <de5usv$f6n$1@mailhub227.itcs.purdue.edu>
Source record: 71652

Burying the radials will make zero difference in performance.

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:PeydnRlla6c06pveRVn-tw@comcast.com...
> All,
>
> I have been using an 80 meter loaded vertical for a couple of years with
> moderate success. The ground system is a dozen 'untuned' radials 40 or so
> feet laying on the ground. The feed line is about 100 feet of RG-8 coax.
> The SWR in the shack is about 1.1 to 1.
> [stuff]
>
> Would burying the radials and connecting them to several 4 square foot
> buried screens substantially help the ground system?
>
> Thanks,
> Dan kb0qil
>
>
>
>

4485. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 00:58:35 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <tc-dnTYP5LupHZveRVn-tQ@comcast.com>
Source record: 71653

<jgboyles@aol.com> wrote in message
news:1124491826.553521.218150@g44g2000cwa.googlegroups.com...
>
> Reg Edwards wrote:
>> <jgboyles@aol.com> wrote in message
>> news:1124486709.945064.307680@g49g2000cwa.googlegroups.com...
>> >
>> > Reg Edwards wrote:
>> > > There is a 3-phase transmitter feeding a 3-phase antenna via a
>> 3-wire
>> > > transmission line.
>> > >
>> > > The antenna consists of three 1/4-wave horizontal radiators spaced
>> at
>> > > 120 degee intervals.
>> > >
>> > > Is the radiation pattern in the horizontal plane perfectly
>> > > omni-directional?
>> > > ----
>> > > Reg.
>> >
>> > Hi Reg, Is the 3-phase transmitter balanced with the output
>> current
>> > equal magnitude, and the phase angle exactly 120 degrees? Is the
>> > 3-phase antenna fed via a 3-wire transmission line, or three equal
>> > length transmission lines? Us Amateurs don't have a lot of
>> experience
>> > with 3-wire coax. Are the horizontal radiators 1/4-wave, or 1/2
>> wave?
>> > If they are 1/4 wave, or 1/2 wave and spaced 120 degrees in the
>> > horizontal plane, doesn't that form an equilateral triangle? So,
>> you
>> > are feeding a triangular antenna whose sides are 1/4-wave in the
>> centre
>> > of each side with balanced 3-phase rf energy?
>> > Even if you clarify this is I still won't know the answer to your
>> > question until I model the array.
>> > Gary N4AST
>> ======================================
>>
>> The three antenna wires are like the spokes of a wheel, spaced at 120
>> degrees, and each 1/4-wave in length. All in the horizontal plane.
>>
>> The transmission line is balanced about ground and each of the line

>> wires is connected to one of the three antenna elements at the center
>> of the wheel. There's no need to pull the line wires apart at the end
>> of the line.
>>
>> What is the radiation pattern in the horizontal plane?
>>
>> Also what is the equivalent load impedance between each of the line
>> wires.
>> ----
>> Reg.
> Ok, I was thinking in terms of a Delta configuration, and you were
> thinking of a Star Configuration. Need more time. Did you consider a
> Delta (triangle) configuration when you thought this up?
> Gary N4AST
>
Actually, I think it is delta connected. A Y connection would Imply half
wave dipoles with their feedpoints connected between each of the three wires
and the neutral point. I am holding my breath for the answer.

Tam/WB2TT

4486. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 01:04:03 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.20.01.04.01.68129@gmail.com>
Source record: 71654

Cecil:

If I understand a lot of data which has been gathered, it tends to imply
"things" can go faster than the speed of light. The princeton egg project
is working on the edge of such things:

http://noosphere.princeton.edu/

... interesting stuff...

John

On Fri, 19 Aug 2005 18:29:45 -0500, Cecil Moore wrote:

> http://www.livescience.com/technology/050819_fastlight.html
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4487. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 01:26:58 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.20.01.26.55.855083@gmail.com>
Source record: 71655

Reg:

I do understand this correctly, and each antenna is fed a signal 120
degrees out of electrical phase with the other 2. And, the physical
placement of the also happens so as to place any specific one of the three
antennas 120 degrees ahead/behind the other two in a physical circle?

John

On Fri, 19 Aug 2005 20:21:38 +0000, Reg Edwards wrote:

> There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
> transmission line.
>
> The antenna consists of three 1/4-wave horizontal radiators spaced at
> 120 degee intervals.
>
> Is the radiation pattern in the horizontal plane perfectly
> omni-directional?
> ----
> Reg.

4488. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 02:33:09 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <FDwNe.143798$wr.80134@clgrps12>
Source record: 71656

> I have been using an 80 meter loaded vertical for a couple of years with
> moderate success. The ground system is a dozen 'untuned' radials 40 or so
> feet laying on the ground. The feed line is about 100 feet of RG-8 coax.
> The SWR in the shack is about 1.1 to 1.
>
> I have done some research on the antenna and based on it parameters it
> should have a radiation resistance of about 4 Ohms. This says that the
> coil and ground are absorbing on the order of 45 Ohms. This is 10db
> performance loss.
>
> I have limited space and the most common solutions are not available to
> me. From a practical perspective it would seem to me that building a 40
> foot center feed loaded dipole and putting it in the attic or on the roof
> would probably perform somewhat better.
>
> Is this a reasonable assumption?
>
> Would burying the radials and connecting them to several 4 square foot
> buried screens substantially help the ground system?
>
> Thanks,
> Dan kb0qil

How high is the antenna, where is the loading coil placed, what is its value, and Q?

Frank

4489. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 02:34:35 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <%EwNe.143799$wr.67691@clgrps12>
Source record: 71657

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pan.2005.08.20.01.26.55.855083@gmail.com...
> Reg:
>
> I do understand this correctly, and each antenna is fed a signal 120
> degrees out of electrical phase with the other 2. And, the physical
> placement of the also happens so as to place any specific one of the three
> antennas 120 degrees ahead/behind the other two in a physical circle?
>
> John

Are these antennas fed with coax?

Frank

4490. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 02:59:31 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.20.02.59.29.320298@gmail.com>
Source record: 71658

Frank:

Let's hope Reg will enlighten us on the exact specifics... I am afraid it
his "word problem" and he says what is and what is not...

John

On Sat, 20 Aug 2005 02:34:35 +0000, Frank wrote:

>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:pan.2005.08.20.01.26.55.855083@gmail.com...
>> Reg:
>>
>> I do understand this correctly, and each antenna is fed a signal 120
>> degrees out of electrical phase with the other 2. And, the physical
>> placement of the also happens so as to place any specific one of the three
>> antennas 120 degrees ahead/behind the other two in a physical circle?
>>
>> John
>
> Are these antennas fed with coax?
>
> Frank

4491. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 03:05:28 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <11gd7ev474i47fd@corp.supernews.com>
Source record: 71659

Just a hint:
Think of how a turnstile antenna works. That one works in the
horizontal plane with 90 degree phasing. Check the radiation patern.

Reg Edwards wrote:
> There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
> transmission line.
>
> The antenna consists of three 1/4-wave horizontal radiators spaced at
> 120 degee intervals.
>
> Is the radiation pattern in the horizontal plane perfectly
> omni-directional?
> ----
> Reg.
>
>

4492. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 03:14:00 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.20.03.13.58.237111@gmail.com>
Source record: 71660

BKR:

Reg has " There is a 3-phase transmitter feeding a 3-phase antenna..."

Does this mean the transmitter is powered off 3-phase 60 cycle (if so, really doesn't affect the antenna) or is the transmitter final somehow constructed with a tank supplying 3-phase rf???

Then the "3-phase antenna", is each monopole, dipole fed though different lengths of feedline, with one 0 degree length, one 120 degree length, and one 240 degree--electrical lengths?

Those brits can be tricky yanno! <grin>

John

On Fri, 19 Aug 2005 21:05:28 -0600, BKR wrote:

>
> Just a hint:
> Think of how a turnstile antenna works. That one works in the
> horizontal plane with 90 degree phasing. Check the radiation patern.
>
>
> Reg Edwards wrote:
>> There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
>> transmission line.
>>
>> The antenna consists of three 1/4-wave horizontal radiators spaced at
>> 120 degee intervals.
>>
>> Is the radiation pattern in the horizontal plane perfectly
>> omni-directional?
>> ----
>> Reg.
>>
>>

4493. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 03:19:08 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <598dg1t9kr71qkainq9gppe5vi105uiv89@4ax.com>
Source record: 71661

On Fri, 19 Aug 2005 18:29:45 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>http://www.livescience.com/technology/050819_fastlight.html
>

Wow. They invented waveguide.

4494. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 03:47:29 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <11gd9tl8v9dqcfb@corp.supernews.com>
Source record: 71662

I think he was providing a simplified model by eliminating phasing
lines. As I understood it he meant that there 3 outputs from the TX
with 3 equal length feedlines or a special feedline, and that all are in
a rotating 120 degree progression.

John Smith wrote:

> BKR:
>
> Reg has " There is a 3-phase transmitter feeding a 3-phase antenna..."
>
> Does this mean the transmitter is powered off 3-phase 60 cycle (if so,
> really doesn't affect the antenna) or is the transmitter final somehow
> constructed with a tank supplying 3-phase rf???
>
> Then the "3-phase antenna", is each monopole, dipole fed though different
> lengths of feedline, with one 0 degree length, one 120 degree length, and
> one 240 degree--electrical lengths?
>
> Those brits can be tricky yanno! <grin>
>
> John
>
> On Fri, 19 Aug 2005 21:05:28 -0600, BKR wrote:
>
>
>>Just a hint:
>>Think of how a turnstile antenna works. That one works in the
>>horizontal plane with 90 degree phasing. Check the radiation patern.
>>
>>
>>Reg Edwards wrote:
>>
>>>There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
>>>transmission line.
>>>
>>>The antenna consists of three 1/4-wave horizontal radiators spaced at
>>>120 degee intervals.
>>>
>>>Is the radiation pattern in the horizontal plane perfectly
>>>omni-directional?
>>>----
>>>Reg.
>>>
>>>

>
>

4495. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 04:01:06 UTC
From: nm5k@wt.net
Message-ID: <1124510096.125073.269010@g43g2000cwa.googlegroups.com>
Source record: 71663

I have limited space and the most common solutions are not available to me. From
a practical perspective it would seem to me that building a 40 foot center feed
loaded dipole and putting it in the attic or on the roof would probably perform
somewhat better. ....

Probably so for short/med haul. Will be a toss for long haul.
Even a semi lossy vertical can outdo a low dipole to dx if the
path is long enough. But for talking 200 miles away, the dipole
will blow the vertical away.
12 radials is not many for a ground mount. If you were to add
more radials or screen, I'd do it at the base of the antenna.
IE: add 50 10 ft radials for 500 ft of wire... Should be better
than a few full size radials. Some say screen can cause problems
after a while do to corrosion. I'd probably just stick with wire
radials myself... How far you want to talk on that band should
determine what antenna is best. For most general use within
1000 miles, I'd rather be on a dipole than a vertical.
But dx, I'd go vertical, and improve it. Loaded does not have
to mean crippled. But loading/short verticals do make the ground
system more critical. My mobile is better than my home dipole
late at night on 40m if I'm talking over 1000 miles away...
And if it ain't loaded, I dunno what is...What power it radiates
is at the perfect fairly low angle for that path/time of night.
BTW, I'd install the dipole outside if at all possible. Less noise
from the house, and will generally work better. Won't hurt it to
be close to the roof, unless metal is underneath to detune.
I've layed dipoles directly on composition shingles with no
problems at all. Or at least when dry anyway... But elevated a
bit would be better.
MK

4496. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 06:02:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h8hdg1ts4hep2ttcd9h3gqi4ubuhk42eae@4ax.com>
Source record: 71664

On Fri, 19 Aug 2005 20:21:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Is the radiation pattern in the horizontal plane perfectly
>omni-directional?

No (and begs the question, what IS perfect?).

On Fri, 19 Aug 2005 22:00:33 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>What is the radiation pattern in the horizontal plane?

Just like for the two lobes of a dipole, three lobes for a tripole.

>Also what is the equivalent load impedance between each of the line
>wires.

35 Ohms.

Hardly comes to the class of pageantry in:
On Tue, 16 Aug 2005 16:15:10 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Is there anybody about who still imagines that an SWR meter, located
>... on the other side of the tuner, indicates
>SWR on the transmission line between transmitter and the antenna?

Anybody indeed? Name someone else other than yourself, Reg. Jeesh....

Time to throw in the last spade of earth and say Amen.

73's
Richard Clark, KB7QHC

4497. Re: You might be an old timer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 07:23:05 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <x9JLDMKZptBDFwLq@g3ohx.demon.co.uk>
Source record: 71665

In message <11fuu3or347de48@corp.supernews.com>, David G. Nagel
<nagel@core.com> writes
>Caveat Lector wrote:
>> Regarding steel wool, I recall an old old radio catalog selling an
>>antenna cleaning kit to shine up your antenna wire -- claims it
>>improved reception !
>> Don't recall if it was steel wool or a fine sandpaper
>> But when you put up a brand new shiny antenna -- does it seem to
>>work better, just like your car runs better after a wash and wax job
>>(;-)
>>
>Mine always gets wet in the rain that comes immediately after the wash
>job. ;^)....

I recall that engines are supposed to deliver more power when water is
sprayed to the air intake. Having washed you car, then driven it out in
the rain, it may appear more nippy.
Ian.
--

4498. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 07:34:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de6mdm$sk4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71666

With a delta connection the line wires would have to opened out at
their ends and would radiate just as much as the triangular antenna
itself.

With either delta or Y connection there is no 4th neutral wire. As the
whole system is balanced there would be zero current in the neutral
anyway.

Reg.

4499. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 08:51:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <de6qu0fge1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71667

"Richard Clark" wrote
> >What is the radiation pattern in the horizontal plane?
>
> Just like for the two lobes of a dipole, three lobes for a tripole.
>
> >Also what is the equivalent load impedance between each of the line
> >wires.
>
> 35 Ohms.
>
==========
Richard,
Would you care to divulge how you obtained these two answers?

Reg.

4500. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 13:16:08 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <iuKdnU8cduZgsJreRVn-vA@comcast.com>
Source record: 71668

If your Physics is learned from Startrek you may have a problem!

Read the article! The critical statement, IMO, is quoted:

" ... By tweaking the relationship between phase velocities, itï¿½s
possible to
adjust the group velocity and create the illusion that parts of the pulse
are traveling faster than the speed of light. ..."

Note the word "ILLUSION"

Fred W4JLE wrote:
> Anyone who has ever watched Startrek knows the light speed limitation is
> incorrect.
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:1124494341_3289@spool6-east.superfeed.net...
>
>>http://www.livescience.com/technology/050819_fastlight.html
>>
>>----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
>
> News==----
>
>>http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
>
> Newsgroups
>
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>
> =----
>
>

4501. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 13:55:44 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <iZqdnUf2A7XFq5reRVn-gQ@comcast.com>
Source record: 71669

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:de6mdm$sk4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> With a delta connection the line wires would have to opened out at
> their ends and would radiate just as much as the triangular antenna
> itself.
>
You are describing the Y connection. With delta connection the load is
between adjacent wires of the feedline. Look at any two wires of what you
describe, and there is a 1/2 wave dipole, center fed, formed by two of the
1/4 wave radiators. But, instead of the two halves of the dipole being fed
180 degrees out of phase, they are 120 degrees. Each 1/4 wave radiator is
part of two different dipoles. Each dipole is bent 60 degrees at the feed
point.

As for the feeedline, I presume what you have is like a twisted pair, but
there are 3 wires, not 2 You could not use a flat transmission line because
it would not be symmetrical.

Tam

> With either delta or Y connection there is no 4th neutral wire. As the
> whole system is balanced there would be zero current in the neutral
> anyway.
> ----
> Reg.
>
>

4502. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 14:07:54 UTC
From: chuck <nospam@nospam.net>
Message-ID: <_OGNe.415$I93.209@newsread2.news.atl.earthlink.net>
Source record: 71670

Hello Dan,

Some thoughts:

The 10 dB loss is, of course, referenced to a "perfect ground." Even with a full length (quarter-wave) vertical and your ground system, performance would improve by about 3 dB. Not a blockbuster.

Improving the radial system, as noted by others, is a more realistic course. You ought to be able to get the ground resistance closer to 20 ohms with more radials close in. Then you will be only 6 dB worse than if your ground were perfect.

Putting up an indoor dipole is cheap and quick. Put it up and compare it with the vertical. But don't hold your breath. You will probably find that with some paths, the dipole is better. you may want to keep both.

I assume you've ruled out a capacity hat, center loading, and a coil with lower losses, as suggested by others. But with these changes and an improved ground system, you might get a full (6 dB) S-unit improvement.

Good luck.

73,

Chuck

dansawyeror wrote:
> All,
>
> I have been using an 80 meter loaded vertical for a couple of years with
> moderate success. The ground system is a dozen 'untuned' radials 40 or
> so feet laying on the ground. The feed line is about 100 feet of RG-8
> coax. The SWR in the shack is about 1.1 to 1.
>
> I have done some research on the antenna and based on it parameters it
> should have a radiation resistance of about 4 Ohms. This says that the
> coil and ground are absorbing on the order of 45 Ohms. This is 10db
> performance loss.
>
> I have limited space and the most common solutions are not available to
> me. From a practical perspective it would seem to me that building a 40
> foot center feed loaded dipole and putting it in the attic or on the
> roof would probably perform somewhat better.
>
> Is this a reasonable assumption?
>

> Would burying the radials and connecting them to several 4 square foot
> buried screens substantially help the ground system?
>
> Thanks,
> Dan kb0qil
>
>
>
>

4503. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 16:00:33 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <17530$430753a7$97d55b95$7188@ALLTEL.NET>
Source record: 71671

Sorry I forgot to put in a winking emoticon for the clueless. I thought that it was obvious that it was a joke.

"Ham op" <hamop@comcast.net> wrote in message news:iuKdnU8cduZgsJreRVn-vA@comcast.com...
> If your Physics is learned from Startrek you may have a problem!

4504. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 16:22:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <55ieg1lgnpfl2m9ecvkvtpq4ls8blcgni7@4ax.com>
Source record: 71672

On Sat, 20 Aug 2005 08:51:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Richard Clark" wrote
>> >What is the radiation pattern in the horizontal plane?
>>
>> Just like for the two lobes of a dipole, three lobes for a tripole.
>>
>> >Also what is the equivalent load impedance between each of the line
>> >wires.
>>
>> 35 Ohms.
>>
>==================================
>Richard,
>Would you care to divulge how you obtained these two answers?

Hi Reg,

Sure. Why don't you first confirm them?

On the other hand - how could it be otherwise?

73's
Richard Clark, KB7QHC

4505. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 17:34:02 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4307698A.9030006@comcast.net>
Source record: 71673

MK,

Thank you for your reply. I will defiantly try adding radials. It may be easier to lay down screen mesh then 50 10 foot radials.

Have you measured the impedance of your mobile vertical? Is it a simple loaded vertical or is there a matching network?

Thanks,
Dan kb0qil

nm5k@wt.net wrote:
> I have limited space and the most common solutions are not available to
> me. From
> a practical perspective it would seem to me that building a 40 foot
> center feed
> loaded dipole and putting it in the attic or on the roof would probably
> perform
> somewhat better. ....
>
> Probably so for short/med haul. Will be a toss for long haul.
> Even a semi lossy vertical can outdo a low dipole to dx if the
> path is long enough. But for talking 200 miles away, the dipole
> will blow the vertical away.
> 12 radials is not many for a ground mount. If you were to add
> more radials or screen, I'd do it at the base of the antenna.
> IE: add 50 10 ft radials for 500 ft of wire... Should be better
> than a few full size radials. Some say screen can cause problems
> after a while do to corrosion. I'd probably just stick with wire
> radials myself... How far you want to talk on that band should
> determine what antenna is best. For most general use within
> 1000 miles, I'd rather be on a dipole than a vertical.
> But dx, I'd go vertical, and improve it. Loaded does not have
> to mean crippled. But loading/short verticals do make the ground
> system more critical. My mobile is better than my home dipole
> late at night on 40m if I'm talking over 1000 miles away...
> And if it ain't loaded, I dunno what is...What power it radiates
> is at the perfect fairly low angle for that path/time of night.
> BTW, I'd install the dipole outside if at all possible. Less noise
> from the house, and will generally work better. Won't hurt it to
> be close to the roof, unless metal is underneath to detune.
> I've layed dipoles directly on composition shingles with no
> problems at all. Or at least when dry anyway... But elevated a
> bit would be better.
> MK

>

4506. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 18:22:29 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <01teg15uchopur57v1q4kpei5agko3358e@4ax.com>
Source record: 71674

On Fri, 19 Aug 2005 20:21:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
>transmission line.
>
>The antenna consists of three 1/4-wave horizontal radiators spaced at
>120 degee intervals.
>
>Is the radiation pattern in the horizontal plane perfectly
>omni-directional?
>----
>Reg.

No. Effectively you are feeding two legs with a -120 degree phase
and that will make it directional.

For Omnidirectional operation ALL legs will have to be fed in phase.
If the three sources are laggin in phase then the feed system will
have to correct the phase till all are in phase.

Many years ago, there was a CB (USA 27mhz 11m) that used three
vertical dipoles with phasing to get directionality or omnidirectional
gain.

Allison

4507. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 18:28:52 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.20.18.28.19.434265@gmail.com>
Source record: 71578

nospam:

That cb antenna (with the 3 dipoles arranged so as to go omni/directional) was called a "scanner", made by antenna specialists I believe (reed switches in a relay box control the elements.)

I cut one down, along with the phasing harness to the center of the 10 meter band, works great! And you are correct, the three 120 degree spaced vertical dipoles are fed in phase for omni-pattern.

John

On Sat, 20 Aug 2005 18:22:29 +0000, nospam wrote:

> On Fri, 19 Aug 2005 20:21:38 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
>>transmission line.
>>
>>The antenna consists of three 1/4-wave horizontal radiators spaced at
>>120 degee intervals.
>>
>>Is the radiation pattern in the horizontal plane perfectly
>>omni-directional?
>>----
>>Reg.
>
> No. Effectively you are feeding two legs with a -120 degree phase
> and that will make it directional.
>
> For Omnidirectional operation ALL legs will have to be fed in phase.
> If the three sources are laggin in phase then the feed system will
> have to correct the phase till all are in phase.
>
> Many years ago, there was a CB (USA 27mhz 11m) that used three
> vertical dipoles with phasing to get directionality or omnidirectional
> gain.
>
>
> Allison

4508. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 18:34:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124563033_7@spool6-east.superfeed.net>
Source record: 71675

dansawyeror wrote:
> I will defiantly try adding radials.

Who are you defying?

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4509. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 18:39:03 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndgeu67.2hft.bit-bucket@shell.config.com>
Source record: 71576

On Sat, 20 Aug 2005 13:34:36 -0500, Cecil Moore wrote:
> dansawyeror wrote:
>> I will defiantly try adding radials.
>
> Who are you defying?

Lawn gnomes, probably.

4510. Re: Removal of Morse Code from Amateur License Requirements...Vanity call wheeee

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 19:02:19 UTC
From: billg10@bellsouth.net
Message-ID: <mrueg15er88odnqi9t0je5ubdp0shb4fg3@4ax.com>
Source record: 71577
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

When I first got my technician ticket, my assigned call sign was KI4FAT. After about 6 months, I retired from the Army and applied for and received a vanity call sign of WO2RET. I'm proud of my status both as a military retiree and an amatuer radio operator. When someone asks me what the call sign stands for, I just tell them it means exactly what it says. I also have an amatuer radio operator vanity plate on my car.

As for G4FGQ, the highest compliment I ever had paid to me was after I had been DXing on the 2meter band using a home made Jbeam, I heard an old timer telling the indivual I had been talking to that he didn't catch the call sign but 'that ham with the home made antenna had really done his homework and put it together right because the signal was outstanding.' To have an old-timer call a relative newcomer a "HAM" is probably one of the greatest compliments a person can receive.

Just my 2 cents worth.

Bill, WO2RET

On Sun, 14 Aug 2005 02:50:57 GMT, Rick Frazier <rickf@rickfrazier.com> wrote:

>Though this appeared in the Rec.radio.equipment newsgroup and is being broadcast
>to several others that may or may not really be appropriate for this diversion
>from the original subject, I can't help but responding....
>
>When it comes to a vanity call, the relative pittance we are charged for a call
>that makes sense to us (whether because of an old call in another location, or
>because it's easier to transmit in morse, or even fits some other plan we may
>have) is worth the money in my opinion, and I imagine to anyone else that took a
>vanity call.
>
>For myself, I chose my current call because the people at FCC didn't give me a
>call in my area on an upgrade from Tech to Extra, despite an address update way
>prior to the examinations. Somehow, they managed to show correct postal box
>address and city, but my state as California (where I used to live), yet the zip
>code was correct, so our "wonderful" postal service forwarded the license
>upgrade to my PObox, yet they gave me a California call....
>Moving to a vanity call that indicated Hawaii was a no-brainer for me, and I'd
>be willing to pay 20 bucks a year to keep it, so the increase in costs still
>make sense to me.... I know I may get a lot of flak from some people because of

>this, but it's all what it's worth in my mind.... It is a hobby, and thing that
>are outside "standard assignment" can be expected to cost a bit more. In my
>mind, it would certainly be worth less than 2 bucks a month to have a call that
>makes sense to me in place of one that is from an area where I no longer live.
>
>Thanks
>--Rick AH7H
>
>Mr Fed UP wrote:
>
>> Well for myself I wouldn't have picked the spaghetti soup group of letters I
>> had to
>> start with. But after retiring I thought I might as well get a little
>> vain... That's all
>> that left after a while. he he.... So for a whopping $20 I got a vanity call
>> after
>> moving to a new call area. I thought in my second life after heart surgery,
>> back surgery,.ect. I might as well have a little fun. After all isn't that
>> what a
>> hobby is for? I'll get 10 years out of my new call but I can't get that
>> far on $20 worth of gas these days. eh. Now all I need is about $20K
>> for that new $13,000 ham radio and a tower and antenna ha ha.
>>
>> What ever is fun is ok. Even if it means dumping a 25 year old call sign.
>> Let me see Ham radio so varied what next.
>> Been there done that.... DXCC... RTTY... OSCAR.,.. PACKET...
>> oh and of coarse RAG CHEW codey slow no problem getting in the
>> time for that award. Contest... Special events... Homebrew...
>> and a cold brew...
>>
>> Oh BTW it isn't the one with the most toys... It's the one who gets to
>> play the most with their toys. Have fun everyone and don't take
>> it too seriously or you get an ulcer and high blood pressure.
>>
>> Cheers 73 ol' WB9SMX new K4TWO when the papers arrive. ;-)
>>
>> "Dee Flint" <deeflint01@comcast.net> wrote in message
>> news:iN2dnaHNlbId2GDfRVn-vw@comcast.com...
>> >
>> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>> > news:ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>> >>
>> >> I do wish people would not refer to me as a 'ham'.
>> >>
>> >> Amongst the very few things I am proud of is that I am a true Class-A
>> >> Radio Amateur.
>> >>
>> >> Incidentally, as a British pensioner, my annual licence is free. When
>> >> requested I just have to confirm I am still in circulation. Same
>> >> applies to riding on buses when mobile or not mobile, sober or not

>> >> sober.
>> >>
>> >> Arn't you American Amateurs envious?
>> >> ----
>> >> Reg, G4FGQ.
>> >
>> > Not the least little bit. All our renewals are free regardless of age or
>> > work status except for those who elected to get a vanity call sign of
>> > their own choosing instead of sticking with an assigned call.
>> >
>> > Dee D. Flint, N8UZE
>> >

4511. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 20:25:43 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <430791C7.2040002@comcast.net>
Source record: 71579

Frank,

The coil measures about 60 uH. The antenna is elevated about 3 feet on a short tripod. The radials angle down the tripod legs and then out.

The coil is about 4 inchs in diameter, number 12, wound on a fiberglass form. It is centerloaded. I am looking at it accross the yard, it is about 6 inches long. It is would with about a point .5 pitch. Calculations for a 1:1 pitch predict a Q of about 450.

Thanks,
Dan

Frank wrote:
>>I have been using an 80 meter loaded vertical for a couple of years with
>>moderate success. The ground system is a dozen 'untuned' radials 40 or so
>>feet laying on the ground. The feed line is about 100 feet of RG-8 coax.
>>The SWR in the shack is about 1.1 to 1.
>>
>>I have done some research on the antenna and based on it parameters it
>>should have a radiation resistance of about 4 Ohms. This says that the
>>coil and ground are absorbing on the order of 45 Ohms. This is 10db
>>performance loss.
>>
>>I have limited space and the most common solutions are not available to
>>me. From a practical perspective it would seem to me that building a 40
>>foot center feed loaded dipole and putting it in the attic or on the roof
>>would probably perform somewhat better.
>>
>>Is this a reasonable assumption?
>>
>>Would burying the radials and connecting them to several 4 square foot
>>buried screens substantially help the ground system?
>>
>>Thanks,
>>Dan kb0qil
>
>
> How high is the antenna, where is the loading coil placed, what is its
> value, and Q?
>
> Frank
>
>

4512. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 20:26:07 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <430791DF.1010808@comcast.net>
Source record: 71580

Frank,

The coil measures about 60 uH. The antenna is elevated about 3 feet on a short tripod. The radials angle down the tripod legs and then out.

The coil is about 4 inchs in diameter, number 12, wound on a fiberglass form. It is centerloaded. I am looking at it accross the yard, it is about 6 inches long. It is would with about a point .5 pitch. Calculations for a 1:1 pitch predict a Q of about 450.

Thanks,
Dan

Frank wrote:
>>I have been using an 80 meter loaded vertical for a couple of years with
>>moderate success. The ground system is a dozen 'untuned' radials 40 or so
>>feet laying on the ground. The feed line is about 100 feet of RG-8 coax.
>>The SWR in the shack is about 1.1 to 1.
>>
>>I have done some research on the antenna and based on it parameters it
>>should have a radiation resistance of about 4 Ohms. This says that the
>>coil and ground are absorbing on the order of 45 Ohms. This is 10db
>>performance loss.
>>
>>I have limited space and the most common solutions are not available to
>>me. From a practical perspective it would seem to me that building a 40
>>foot center feed loaded dipole and putting it in the attic or on the roof
>>would probably perform somewhat better.
>>
>>Is this a reasonable assumption?
>>
>>Would burying the radials and connecting them to several 4 square foot
>>buried screens substantially help the ground system?
>>
>>Thanks,
>>Dan kb0qil
>
>
> How high is the antenna, where is the loading coil placed, what is its
> value, and Q?
>
> Frank
>
>

4513. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 20:26:25 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <y_udnc7xOOtsDJreRVn-iA@comcast.com>
Source record: 71581

Frank,

The coil measures about 60 uH. The antenna is elevated about 3 feet on a short tripod. The radials angle down the tripod legs and then out.

The coil is about 4 inchs in diameter, number 12, wound on a fiberglass form. It is centerloaded. I am looking at it accross the yard, it is about 6 inches long. It is would with about a point .5 pitch. Calculations for a 1:1 pitch predict a Q of about 450.

Thanks,
Dan

Frank wrote:
>>I have been using an 80 meter loaded vertical for a couple of years with
>>moderate success. The ground system is a dozen 'untuned' radials 40 or so
>>feet laying on the ground. The feed line is about 100 feet of RG-8 coax.
>>The SWR in the shack is about 1.1 to 1.
>>
>>I have done some research on the antenna and based on it parameters it
>>should have a radiation resistance of about 4 Ohms. This says that the
>>coil and ground are absorbing on the order of 45 Ohms. This is 10db
>>performance loss.
>>
>>I have limited space and the most common solutions are not available to
>>me. From a practical perspective it would seem to me that building a 40
>>foot center feed loaded dipole and putting it in the attic or on the roof
>>would probably perform somewhat better.
>>
>>Is this a reasonable assumption?
>>
>>Would burying the radials and connecting them to several 4 square foot
>>buried screens substantially help the ground system?
>>
>>Thanks,
>>Dan kb0qil
>
>
> How high is the antenna, where is the loading coil placed, what is its
> value, and Q?
>
> Frank
>
>

4514. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 20:47:11 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <430796CF.5060804@comcast.net>
Source record: 71582

The local gardener who takes great pride and ownership in the lawn. The garage can go mostly to seed, however the lawn must be pristine. Each antenna change meets with great resistance. Although defiantly was definitely a spell checker choice, it is also the correct one for getting radials.

Dan

Cecil Moore wrote:
> dansawyeror wrote:
>
>> I will defiantly try adding radials.
>
>
> Who are you defying?
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4515. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 21:11:04 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-26515D.13121820082005@netnews.worldnet.att.net>
Source record: 71583

In article <1124486709.945064.307680@g49g2000cwa.googlegroups.com>,
jgboyles@aol.com wrote:

> Us Amateurs don't have a lot of experience

That's why they call you "Amateurs".....the Professional Radio Engineers understand perfectly what the OP was talking about, and exactly why, and how, this type of antenna system is used in the real world of communications, both fixed and mobile.

Me who has been around the biz, since almost before Moses.....

4516. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 21:26:06 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <6i7fg1l8t1c2s6jas25vq5nev5sc5vhmko@4ax.com>
Source record: 71584

On Sat, 20 Aug 2005 11:28:52 -0700, John Smith
<assemblywizard@gmail.com> wrote:

>nospam:
>
>That cb antenna (with the 3 dipoles arranged so as to go omni/directional)
>was called a "scanner", made by antenna specialists I believe (reed
>switches in a relay box control the elements.)

Yep thats it, got stuck for a name.

>I cut one down, along with the phasing harness to the center of the 10
>meter band, works great! And you are correct, the three 120 degree spaced
>vertical dipoles are fed in phase for omni-pattern.

Many years ago I help a ham friend (now SK) set up a foursquare. that
four vertical monopoles with goundplane with phasing feed for gain and
directionality. It was a very good antenna for 20M.

Early in my commercial career I worked part time for an AM BCB station
and would help with antenna tuning for directional pattern. Imagine
three big (300ft) towers in a field with about that much space between
them in a line. The feed and phasing coils were BIG, the usual
pattern was cartioid with the weak null facing the atlantic ocean to
the southeast. Just a bigger version of many phased arrays I'd see
in my commercial career.

Allison
KB1GMX

4517. DYMEK DA9

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 22:08:10 UTC
From: Dxer 1600 <rjr@optonline.net>
Message-ID: <q4ONe.2972$_7.361@fe08.lga>
Source record: 71585
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi
I just picked up a (stoner) Dymek DA9 active antenna. The tuning cap has somehow been bypassed and it does nothing to affect the station. I was told that this was bypassed intentionally so as to be a broadband antenna. I'd like to resore ti to original and use the tuning cap as a preselector.

Does anyone have a print / schematic on this unit ?

Thanks!

4518. Re: Removal of Morse Code from Amateur License Requirements...Vanity call wheeee

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 22:27:31 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <n7ONe.9176$ns.8417@newsread1.news.atl.earthlink.net>
Source record: 71586
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Bill,

Thank you for your service. With your attitude you will go far in Amateur Radio.

Dan/W4NTI

<billg10@bellsouth.net> wrote in message news:mrueg15er88odnqi9t0je5ubdp0shb4fg3@4ax.com...
> When I first got my technician ticket, my assigned call sign was
> KI4FAT. After about 6 months, I retired from the Army and applied for
> and received a vanity call sign of WO2RET. I'm proud of my status
> both as a military retiree and an amatuer radio operator. When
> someone asks me what the call sign stands for, I just tell them it
> means exactly what it says. I also have an amatuer radio operator
> vanity plate on my car.
>
> As for G4FGQ, the highest compliment I ever had paid to me was after I
> had been DXing on the 2meter band using a home made Jbeam, I heard an
> old timer telling the indivual I had been talking to that he didn't
> catch the call sign but 'that ham with the home made antenna had
> really done his homework and put it together right because the signal
> was outstanding.' To have an old-timer call a relative newcomer a
> "HAM" is probably one of the greatest compliments a person can
> receive.
>
> Just my 2 cents worth.
>
> Bill, WO2RET
>
> On Sun, 14 Aug 2005 02:50:57 GMT, Rick Frazier <rickf@rickfrazier.com>
> wrote:
>
>>Though this appeared in the Rec.radio.equipment newsgroup and is being
>>broadcast
>>to several others that may or may not really be appropriate for this
>>diversion
>>from the original subject, I can't help but responding....
>>
>>When it comes to a vanity call, the relative pittance we are charged for a
>>call
>>that makes sense to us (whether because of an old call in another

>>location, or
>>because it's easier to transmit in morse, or even fits some other plan we
>>may
>>have) is worth the money in my opinion, and I imagine to anyone else that
>>took a
>>vanity call.
>>
>>For myself, I chose my current call because the people at FCC didn't give
>>me a
>>call in my area on an upgrade from Tech to Extra, despite an address
>>update way
>>prior to the examinations. Somehow, they managed to show correct postal
>>box
>>address and city, but my state as California (where I used to live), yet
>>the zip
>>code was correct, so our "wonderful" postal service forwarded the license
>>upgrade to my PObox, yet they gave me a California call....
>>Moving to a vanity call that indicated Hawaii was a no-brainer for me, and
>>I'd
>>be willing to pay 20 bucks a year to keep it, so the increase in costs
>>still
>>make sense to me.... I know I may get a lot of flak from some people
>>because of
>>this, but it's all what it's worth in my mind.... It is a hobby, and
>>thing that
>>are outside "standard assignment" can be expected to cost a bit more.
>>In my
>>mind, it would certainly be worth less than 2 bucks a month to have a
>>call that
>>makes sense to me in place of one that is from an area where I no longer
>>live.
>>
>>Thanks
>>--Rick AH7H
>>
>>Mr Fed UP wrote:
>>
>>> Well for myself I wouldn't have picked the spaghetti soup group of
>>> letters I
>>> had to
>>> start with. But after retiring I thought I might as well get a little
>>> vain... That's all
>>> that left after a while. he he.... So for a whopping $20 I got a vanity
>>> call
>>> after
>>> moving to a new call area. I thought in my second life after heart
>>> surgery,
>>> back surgery,.ect. I might as well have a little fun. After all isn't
>>> that
>>> what a

>>> hobby is for? I'll get 10 years out of my new call but I can't get that
>>> far on $20 worth of gas these days. eh. Now all I need is about $20K
>>> for that new $13,000 ham radio and a tower and antenna ha ha.
>>>
>>> What ever is fun is ok. Even if it means dumping a 25 year old call
>>> sign.
>>> Let me see Ham radio so varied what next.
>>> Been there done that.... DXCC... RTTY... OSCAR.,.. PACKET...
>>> oh and of coarse RAG CHEW codey slow no problem getting in the
>>> time for that award. Contest... Special events... Homebrew...
>>> and a cold brew...
>>>
>>> Oh BTW it isn't the one with the most toys... It's the one who gets to
>>> play the most with their toys. Have fun everyone and don't take
>>> it too seriously or you get an ulcer and high blood pressure.
>>>
>>> Cheers 73 ol' WB9SMX new K4TWO when the papers arrive. ;-)
>>>
>>> "Dee Flint" <deeflint01@comcast.net> wrote in message
>>> news:iN2dnaHNlbId2GDfRVn-vw@comcast.com...
>>> >
>>> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>>> > news:ddhag7kdf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>>> >>
>>> >> I do wish people would not refer to me as a 'ham'.
>>> >>
>>> >> Amongst the very few things I am proud of is that I am a true Class-A
>>> >> Radio Amateur.
>>> >>
>>> >> Incidentally, as a British pensioner, my annual licence is free.
>>> >> When
>>> >> requested I just have to confirm I am still in circulation. Same
>>> >> applies to riding on buses when mobile or not mobile, sober or not
>>> >> sober.
>>> >>
>>> >> Arn't you American Amateurs envious?
>>> >> ----
>>> >> Reg, G4FGQ.
>>> >
>>> > Not the least little bit. All our renewals are free regardless of age
>>> > or
>>> > work status except for those who elected to get a vanity call sign of
>>> > their own choosing instead of sticking with an assigned call.
>>> >
>>> > Dee D. Flint, N8UZE
>>> >
>

4519. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-20 22:55:56 UTC
From: jgboyles@aol.com
Message-ID: <1124578556.103105.277990@f14g2000cwb.googlegroups.com>
Source record: 71587

Me wrote:
> In article <1124486709.945064.307680@g49g2000cwa.googlegroups.com>,
> jgboyles@aol.com wrote:
>
> > Us Amateurs don't have a lot of experience
>
> That's why they call you "Amateurs".....the Professional Radio Engineers
> understand perfectly what the OP was talking about, and exactly why, and
> how, this type of antenna system is used in the real world of
> communications, both fixed and mobile.
>
> Me who has been around the biz, since almost before Moses.....

I am glad they call me an Amateur, because that is what I am. The word Amateur is in the name of this Newsgroup. It is obvious Professional Radio Engineers would understand what Reg was talking about, but this is an Amateur Newsgroup. Why don't you go to the Professional Antenna Designer Newsgroup (if there is one) and ask the question that Reg did? I don't think they would all understand perfectly, but I may be wrong, because I am an amateur. By the way, are you an Amateur Radio Operator?
Gary N4AST

4520. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 00:00:16 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <8_CdnZ2dnZ0cghGAnZ2dnZpZmt6dnZ2dRVn-052dnZ0@comcast.com>
Source record: 71588

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:h8hdg1ts4hep2ttcd9h3gqi4ubuhk42eae@4ax.com...
> On Fri, 19 Aug 2005 20:21:38 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Is the radiation pattern in the horizontal plane perfectly
>>omni-directional?
>
> No (and begs the question, what IS perfect?).
>
> On Fri, 19 Aug 2005 22:00:33 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>What is the radiation pattern in the horizontal plane?
>
> Just like for the two lobes of a dipole, three lobes for a tripole.
>
>>Also what is the equivalent load impedance between each of the line
>>wires.
>
> 35 Ohms.
>
> Hardly comes to the class of pageantry in:
> On Tue, 16 Aug 2005 16:15:10 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Is there anybody about who still imagines that an SWR meter, located
>>... on the other side of the tuner, indicates
>>SWR on the transmission line between transmitter and the antenna?
>
> Anybody indeed? Name someone else other than yourself, Reg. Jeesh....
>
> Time to throw in the last spade of earth and say Amen.
>
> 73's
> Richard Clark, KB7QHC

I ran EZNEC on what I think is an equivalent arrangement, and got a gain max/min ratio of about 4db. Got an impedance of 29 Ohms. With multiple sources, I have trouble visualizing what that means. That may actually be 87 Ohms line to line.

Tam/WB2TT

4521. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 00:15:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gfhspcmcn845f@corp.supernews.com>
Source record: 71589

For those folks who aren't all that familiar with transmission lines. .

Velocity factor refers to phase velocity, and the VF of all hollow waveguides is > 1.0.

Of course, the group velocity is always < 1.0, and that's the rate at which information can be conveyed. I don't believe for a minute that this rule has been broken.

Roy Lewallen, W7EL

4522. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 00:48:44 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.21.00.48.42.517161@gmail.com>
Source record: 71591

Fred:

I don't believe that anyone has demonstrated faster than light
transmission of an energy, wave or particle, where the effect is
duplicable on demand, yet...

I do believe it will be done in the future, hopefully the rather near
future... but it will can only be done by people who are searching for
way--the scoffers will never, ever be able to present us with a method
to do so--on that you can bet heavily!

John

On Fri, 19 Aug 2005 20:42:58 -0400, Fred W4JLE wrote:

> Anyone who has ever watched Startrek knows the light speed limitation is
> incorrect.
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:1124494341_3289@spool6-east.superfeed.net...
>> http://www.livescience.com/technology/050819_fastlight.html
>>
>> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
>> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> =----

4523. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 02:17:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <runfg15fu435tm1lielt636ul9vuifjkit@4ax.com>
Source record: 71590

On Sat, 20 Aug 2005 20:00:16 -0400, "Tam/WB2TT"
<t-tammaru@c0mca$t.net> wrote:

>I have trouble visualizing what that means.

Hi Tam,

What do you mean by that? You have a source pushing current into an element against a counterpoise, an active one albeit, but all counterpoises support current too (hence the symmetry of resistance). Just another condition of the ENTIRE structure radiating energy (where some would have energy cancelled rather than the power product into a remote load).

Yes, the three leaf trifoil is not very pronounced, and only below an elevation or 45 degrees or so. However, Reg introduced this with the strong suggestion of perfection. Perhaps his usual indirection. ;-)

A 4-phase antenna shows a similar lobing to a smaller degree, and a 5-phase antenna is for all practical purposes circular.

I had to solve a problem like this a couple of years ago with a design for the Army to test their Helicopter pilots for mental alertness. This involved building a uniform field of even illumination over a visual angle of 180 degrees horizontal and 90 degrees vertical (roughly the entire field of view). I was tasked to present no more variation than a couple of percent ripple. It took about 100 light sources 1 cM from the eyes.

73's
Richard Clark, KB7QHC

4524. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 02:49:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <43d36$4307ebc6$97d55b95$10784@ALLTEL.NET>
Source record: 71592

John, picture if you will, an observer on earth watches a spacecraft pass between the moon and the sun at 99.9%C. The occupant of the space craft knows that the distance is about 93 million miles and clicks his stopwatch as he passes the moon, and again as he passes the sun. Given the time and distance, he computes his speed (measured with his slowed down time piece) and concludes he has exceeded C. Ergo there must be analogs of C. What say you?

"John Smith" <assemblywizard@gmail.com> wrote in message
news:pan.2005.08.21.00.48.42.517161@gmail.com...
> Fred:
>
> I don't believe that anyone has demonstrated faster than light
> transmission of an energy, wave or particle, where the effect is
> duplicable on demand, yet...
>
> I do believe it will be done in the future, hopefully the rather near
> future... but it will can only be done by people who are searching for
> way--the scoffers will never, ever be able to present us with a method
> to do so--on that you can bet heavily!
>
> John
>
> On Fri, 19 Aug 2005 20:42:58 -0400, Fred W4JLE wrote:
>
> > Anyone who has ever watched Startrek knows the light speed limitation is
> > incorrect.
> >
> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> > news:1124494341_3289@spool6-east.superfeed.net...
> >> http://www.livescience.com/technology/050819_fastlight.html
> >>
> >> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> > News==----
> >> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
120,000+
> > Newsgroups
> >> ----= East and West-Coast Server Farms - Total Privacy via Encryption
> > =----
>

4525. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 03:47:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124596185_499@spool6-east.superfeed.net>
Source record: 71593

John Smith wrote:
> I don't believe that anyone has demonstrated faster than light
> transmission of an energy, wave or particle, where the effect is
> duplicable on demand, yet...

Entangled particles may not violate the letter of the speed
of light limit but they certainly violate the spirit of the
limit. When man figures out how to change the entangled particle
generation pattern from random to predictable, we will have
faster than light communications. It's just a matter of time. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4526. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 04:00:10 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.21.04.00.07.872381@gmail.com>
Source record: 71594

Fred:

Quite obviously, there is no such thing as time.

However, since he is attempting to discern if there is a change in his speed (rapidity at which he is transversing the ether), against a speed which we now claim as a "law"--i.e. speed-of-light, he must attempt something, and measure it against some other spinning object (namely earth, when he uses his watch.)

He would actually need to throw away the watch and race a laser beam on a parallel course to himself, which is originating in a third place behind him to get any meaningful measurement at all, as all he is interested in is how fast he is traveling in relationship to light transversing the same media as himself.

But he is doomed to failure, as surely you must see. Time = movement = distance, since there is no such thing as time, it is actually distance (or space itself in between points he travels) which he is really causing to change, and to my knowledge, we have not yet constructed the device which can measure such, but a shortening of distance is obviously happening between him and his destination, those lines of ether which connect him to his destination are being warped in someway not understood, probably being bent back upon themselves like a horseshoe, and now he is not actually traveling the distance around the horseshoe, but rather, stepping across the two ends.

Ether, the real "matter" of the universe, passes though our altered state (caused by the big bang ripping our "matter" from the real matter the universe is composed of and altering its properties into "our matter") like a gas though a screen composed of very large holes. At the speed of light this resistance of our bodies to the flow of ether though them fails to remain insignificant, what happens next, when our matter finally becomes a real resistance to ether and then goes further to "push" the ether in a flow not of its' own design, and in a way we have never seen done since the big bang, is unknown...

... but, I do think upon these things ... and others claim there is nothing to even be thought upon ...

... but then you already knew there was no way to answer your original question, at least not correctly ...

John

On Sat, 20 Aug 2005 22:49:03 -0400, Fred W4JLE wrote:

> John, picture if you will, an observer on earth watches a spacecraft pass
> between the moon and the sun at 99.9%C. The occupant of the space craft
> knows that the distance is about 93 million miles and clicks his stopwatch
> as he passes the moon, and again as he passes the sun. Given the time and
> distance, he computes his speed (measured with his slowed down time piece)
> and concludes he has exceeded C. Ergo there must be analogs of C. What say
> you?
>
> "John Smith" <assemblywizard@gmail.com> wrote in message
> news:pan.2005.08.21.00.48.42.517161@gmail.com...
>> Fred:
>>
>> I don't believe that anyone has demonstrated faster than light
>> transmission of an energy, wave or particle, where the effect is
>> duplicable on demand, yet...
>>
>> I do believe it will be done in the future, hopefully the rather near
>> future... but it will can only be done by people who are searching for
>> way--the scoffers will never, ever be able to present us with a method
>> to do so--on that you can bet heavily!
>>
>> John
>>
>> On Fri, 19 Aug 2005 20:42:58 -0400, Fred W4JLE wrote:
>>
>> > Anyone who has ever watched Startrek knows the light speed limitation is
>> > incorrect.
>> >
>> > "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> > news:1124494341_3289@spool6-east.superfeed.net...
>> >> http://www.livescience.com/technology/050819_fastlight.html
>> >>
>> >> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
>> > News==----
>> >> http://www.newsfeeds.com The #1 Newsgroup Service in the World!
> 120,000+
>> > Newsgroups
>> >> -----= East and West-Coast Server Farms - Total Privacy via Encryption
>> > =-----
>>

4527. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 04:13:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.21.04.13.13.122335@gmail.com>
Source record: 71595

Cecil:

Quite factually, I agree with you, whether you were just kidding or not...

John

On Sat, 20 Aug 2005 22:47:09 -0500, Cecil Moore wrote:

> John Smith wrote:
>> I don't believe that anyone has demonstrated faster than light
>> transmission of an energy, wave or particle, where the effect is
>> duplicable on demand, yet...
>
> Entangled particles may not violate the letter of the speed
> of light limit but they certainly violate the spirit of the
> limit. When man figures out how to change the entangled particle
> generation pattern from random to predictable, we will have
> faster than light communications. It's just a matter of time. :-)

4528. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 14:17:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124633995_1041@spool6-east.superfeed.net>
Source record: 71596

John Smith wrote:
> Quite factually, I agree with you, whether you were just kidding or not...

I thought the multiple meanings of, "It's just a matter of time.",
was humorous.

Consider that the complete quantum state of a particle could be
teleported to Mars and back to Earth without suffering the speed
of light delay. This has already been demonstrated in the physics
lab. Unfortunately, all quantum states must necessarily remain
unknown until the complete quantum state is teleported back to Earth.
--
73, Cecil http://www.qsl.net/w5dxp

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4529. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 16:03:00 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <RoudnTN_j4w1OJXeRVn-gA@comcast.com>
Source record: 71597

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:runfg15fu435tm1lielt636ul9vuifjkit@4ax.com...
> On Sat, 20 Aug 2005 20:00:16 -0400, "Tam/WB2TT"
> <t-tammaru@c0mca$t.net> wrote:
>
>>I have trouble visualizing what that means.
>
> Hi Tam,
>
> What do you mean by that? You have a source pushing current into an
> element against a counterpoise, an active one albeit, but all
> counterpoises support current too (hence the symmetry of resistance).
> Just another condition of the ENTIRE structure radiating energy (where
> some would have energy cancelled rather than the power product into a
> remote load).
>
> Yes, the three leaf trifoil is not very pronounced, and only below an
> elevation or 45 degrees or so. However, Reg introduced this with the
> strong suggestion of perfection. Perhaps his usual indirection. ;-)
>
> A 4-phase antenna shows a similar lobing to a smaller degree, and a
> 5-phase antenna is for all practical purposes circular.
>
> I had to solve a problem like this a couple of years ago with a design
> for the Army to test their Helicopter pilots for mental alertness.
> This involved building a uniform field of even illumination over a
> visual angle of 180 degrees horizontal and 90 degrees vertical
> (roughly the entire field of view). I was tasked to present no more
> variation than a couple of percent ripple. It took about 100 light
> sources 1 cM from the eyes.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

My main problem was interpreting what EZNEC meant when it told me the impedance was 29 Ohms at resonance. Missed the fact that it displays the Z for each generator independently. 29 is the impedance to neutral. So, that makes it 87 Ohms line to line. I did this in free space. There is no NET current in the neutral.

Tam

4530. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 16:53:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <84chg11jtsfptsukmbh51j5dcs3pqacntl@4ax.com>
Source record: 71598

On Sun, 21 Aug 2005 12:03:00 -0400, "Tam/WB2TT"
<t-tammaru@c0mca$t.net> wrote:

>My main problem was interpreting what EZNEC meant when it told me the
>impedance was 29 Ohms at resonance. Missed the fact that it displays the Z
>for each generator independently. 29 is the impedance to neutral. So, that
>makes it 87 Ohms line to line. I did this in free space. There is no NET
>current in the neutral.

Hi Tam,

I took the more practical (amusing given the absurd complication of a
3-phase RF source) route of putting the antenna ï¿½ above earth.

73's
Richard Clark, KB7QHC

4531. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 16:56:14 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.21.16.56.12.683098@gmail.com>
Source record: 71599

Cecil:

"It boggles the mind.", is often an over-statement. Here it is not. It is no doubt many would question the sanity of men who even are so brazen that they would ponder such things--in other words, I think we are going to have to take a little flack over all this...

It is why I pointed out princetons' egg project. You see how careful they are, the detail they even pay to picking the words they choose to even advance discussion of the matter, least they be branded "kooks."

It will be exciting when we are even able to grasp the smallest detail of the functioning of all this...

John

On Sun, 21 Aug 2005 09:17:18 -0500, Cecil Moore wrote:

> John Smith wrote:
>> Quite factually, I agree with you, whether you were just kidding or not...
>
> I thought the multiple meanings of, "It's just a matter of time.",
> was humorous.
>
> Consider that the complete quantum state of a particle could be
> teleported to Mars and back to Earth without suffering the speed
> of light delay. This has already been demonstrated in the physics
> lab. Unfortunately, all quantum states must necessarily remain
> unknown until the complete quantum state is teleported back to Earth.

4532. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 18:01:30 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-02E309.10024921082005@netnews.worldnet.att.net>
Source record: 71600

In article <1124578556.103105.277990@f14g2000cwb.googlegroups.com>,
jgboyles@aol.com wrote:

> By the way, are you an Amateur Radio Operator?
> Gary N4AST
>

Since 1964

Me

4533. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 20:04:29 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <AoSdnfhDQY-OQpXeRVn-rQ@comcast.com>
Source record: 71601

Me wrote:
> In article <1124578556.103105.277990@f14g2000cwb.googlegroups.com>,
> jgboyles@aol.com wrote:
>
>
>> By the way, are you an Amateur Radio Operator?
>>Gary N4AST
>>
>
>
> Since 1964
>
>
> Me

Awe! A newcomer!

You must be QCWA*2 minimum to post on this list. :-)

4534. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 20:07:42 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <7badnZ2dnZ0r8vbznZ2dnUhCld6dnZ2dRVn-0p2dnZ0@comcast.com>
Source record: 71602

Fred W4JLE wrote:

> John, picture if you will, an observer on earth watches a spacecraft pass
> between the moon and the sun at 99.9%C. The occupant of the space craft
> knows that the distance is about 93 million miles and clicks his stopwatch
> as he passes the moon, and again as he passes the sun. Given the time and
> distance, he computes his speed (measured with his slowed down time piece)
> and concludes he has exceeded C. Ergo there must be analogs of C. What say
> you?
>
>
Doesn't the Relativistic Gamma Function ALSO change distance?

Everything is RELATIVE: except the absolute velocity of light.

4535. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 20:10:19 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <wYidnTDVD4HufZXeRVn-3A@comcast.com>
Source record: 71603

Ah Ha! The identical twin particles and information sharing at
velocities faster than light. Hmmm ....

But, it's been many years since my collage days. Maybe Physics has changed.

Cecil Moore wrote:

> John Smith wrote:
>
>> Quite factually, I agree with you, whether you were just kidding or
>> not...
>
>
> I thought the multiple meanings of, "It's just a matter of time.",
> was humorous.
>
> Consider that the complete quantum state of a particle could be
> teleported to Mars and back to Earth without suffering the speed
> of light delay. This has already been demonstrated in the physics
> lab. Unfortunately, all quantum states must necessarily remain
> unknown until the complete quantum state is teleported back to Earth.

4536. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 22:08:16 UTC
From: jgboyles@aol.com
Message-ID: <1124662096.856185.141310@g47g2000cwa.googlegroups.com>
Source record: 71604

Me wrote:
> In article <1124578556.103105.277990@f14g2000cwb.googlegroups.com>,
> jgboyles@aol.com wrote:
>
> > By the way, are you an Amateur Radio Operator?
> > Gary N4AST
> >
>
> Since 1964
>
>
> Me

Well Me, as for me, Amateur since 1963, professional radio engineer,
never. I did install some cb antennas during the early 1970's and got
paid, so I may be a professional antenna installer? Hope by these acts
I didn't give up my Amateur status. Was in college at the time and did
not have much $$. Why don't you give your call?
Gary N4AST

4537. Re: VF > 1.0???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-21 23:27:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124667027_521@spool6-east.superfeed.net>
Source record: 71605

Ham op wrote:
> Ah Ha! The identical twin particles and information sharing at
> velocities faster than light. Hmmm ....

Duuuuhhhh, unknown quantum states cannot share information.

>> Unfortunately, all quantum states must necessarily remain
>> unknown until the complete quantum state is teleported back to Earth.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4538. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 01:23:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <6vmdnaUjmMlgtZTeRVn-qw@comcast.com>
Source record: 71606

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:430791DF.1010808@comcast.net...
> Frank,
>
> The coil measures about 60 uH. The antenna is elevated about 3 feet on a
> short tripod. The radials angle down the tripod legs and then out.
>
> The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
> form. It is centerloaded. I am looking at it accross the yard, it is about
> 6 inches long. It is would with about a point .5 pitch. Calculations for a
> 1:1 pitch predict a Q of about 450.
>
> Thanks,
> Dan
>
Maybe I missed something, but how high is the TOP of the antenna. I.E. How
long is the whip? Is the loading coil at the base, or partway up the
antenna?

Tam/WB2TT

4539. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 01:28:53 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <g-CdnUTLeoPFt5TeRVn-2Q@comcast.com>
Source record: 71607

Tam,

The description was for the coil.

The total antenna is about 15 feet base to tip. The coil is about 1/3 of the way up. The base is about 3 feet off the ground so the tip would be about 18 feet up.

Dan

Tam/WB2TT wrote:
> "dansawyeror" <dansawyeror@comcast.net> wrote in message
> news:430791DF.1010808@comcast.net...
>
>>Frank,
>>
>>The coil measures about 60 uH. The antenna is elevated about 3 feet on a
>>short tripod. The radials angle down the tripod legs and then out.
>>
>>The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
>>form. It is centerloaded. I am looking at it accross the yard, it is about
>>6 inches long. It is would with about a point .5 pitch. Calculations for a
>>1:1 pitch predict a Q of about 450.
>>
>>Thanks,
>>Dan
>>
>
> Maybe I missed something, but how high is the TOP of the antenna. I.E. How
> long is the whip? Is the loading coil at the base, or partway up the
> antenna?
>
> Tam/WB2TT
>
>

4540. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 03:25:13 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <JeqdnT7r0KUQ2JTeRVn-3g@comcast.com>
Source record: 71608

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:g-CdnUTLeoPFt5TeRVn-2Q@comcast.com...
> Tam,
>
> The description was for the coil.
>
> The total antenna is about 15 feet base to tip. The coil is about 1/3 of
> the way up. The base is about 3 feet off the ground so the tip would be
> about 18 feet up.
>
> Dan
>
> Tam/WB2TT wrote:
>> "dansawyeror" <dansawyeror@comcast.net> wrote in message
>> news:430791DF.1010808@comcast.net...
>>
>>>Frank,
>>>
>>>The coil measures about 60 uH. The antenna is elevated about 3 feet on a
>>>short tripod. The radials angle down the tripod legs and then out.
>>>
>>>The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
>>>form. It is centerloaded. I am looking at it accross the yard, it is
>>>about 6 inches long. It is would with about a point .5 pitch.
>>>Calculations for a 1:1 pitch predict a Q of about 450.
>>>
>>>Thanks,
>>>Dan
>>>
>>
>> Maybe I missed something, but how high is the TOP of the antenna. I.E.
>> How long is the whip? Is the loading coil at the base, or partway up the
>> antenna?
>>
>> Tam/WB2TT
Dan,

Over perfect ground, I get an impedance of about 2.4 Ohms, with resonance
very close to 3.8 MHz. What is the tallest tree in your yard?

Tam

4541. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 03:38:28 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <pbWdneaUpsUq1ZTeRVn-uw@comcast.com>
Source record: 71609

Tam

That would relate very close to what the models predict. Where or how do you have such good ground?

Dan

Tam/WB2TT wrote:
> "dansawyeror" <dansawyeror@comcast.net> wrote in message
> news:g-CdnUTLeoPFt5TeRVn-2Q@comcast.com...
>
>>Tam,
>>
>>The description was for the coil.
>>
>>The total antenna is about 15 feet base to tip. The coil is about 1/3 of
>>the way up. The base is about 3 feet off the ground so the tip would be
>>about 18 feet up.
>>
>>Dan
>>
>>Tam/WB2TT wrote:
>>
>>>"dansawyeror" <dansawyeror@comcast.net> wrote in message
>>>news:430791DF.1010808@comcast.net...
>>>
>>>
>>>>Frank,
>>>>
>>>>The coil measures about 60 uH. The antenna is elevated about 3 feet on a
>>>>short tripod. The radials angle down the tripod legs and then out.
>>>>
>>>>The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
>>>>form. It is centerloaded. I am looking at it accross the yard, it is
>>>>about 6 inches long. It is would with about a point .5 pitch.
>>>>Calculations for a 1:1 pitch predict a Q of about 450.
>>>>
>>>>Thanks,
>>>>Dan
>>>>
>>>
>>>Maybe I missed something, but how high is the TOP of the antenna. I.E.
>>>How long is the whip? Is the loading coil at the base, or partway up the
>>>antenna?
>>>

>>>Tam/WB2TT
>
> Dan,
>
> Over perfect ground, I get an impedance of about 2.4 Ohms, with resonance
> very close to 3.8 MHz. What is the tallest tree in your yard?
>
> Tam
>
>

4542. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 04:17:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gikff7omn1mba@corp.supernews.com>
Source record: 71610

dansawyeror wrote:
> All,
>
> I have been using an 80 meter loaded vertical for a couple of years with
> moderate success. The ground system is a dozen 'untuned' radials 40 or
> so feet laying on the ground. The feed line is about 100 feet of RG-8
> coax. The SWR in the shack is about 1.1 to 1.
>
> I have done some research on the antenna and based on it parameters it
> should have a radiation resistance of about 4 Ohms. This says that the
> coil and ground are absorbing on the order of 45 Ohms. This is 10db
> performance loss.
>
> I have limited space and the most common solutions are not available to
> me. From a practical perspective it would seem to me that building a 40
> foot center feed loaded dipole and putting it in the attic or on the
> roof would probably perform somewhat better.
>
> Is this a reasonable assumption?
>

I'm not sure you can count on that. You'd still lose some in a matching/loading network, there'd be a lot of ground loss because of the low height, and absorption of some of the power from conductors in the house might occur. It wouldn't hurt to try, but leave your vertical up.

> Would burying the radials and connecting them to several 4 square foot
> buried screens substantially help the ground system?

Just about anything you can do to increase the conductivity of the ground system, particularly close to the antenna, will help. Using screen is one thing. Burying the radials won't help. Adding more radials and making them longer will help. Unfortunately, making a few radials longer doesn't do much, and adding a bunch of short radials doesn't do much either -- you really have to do both to have a big effect. If possible, connect to any other nearby buried conductors such as metallic water pipes.

The other thing you can do to improve the efficiency is to increase the radiation resistance of the antenna. You can do this of course by increasing the height of the antenna. Moving the loading coil upward will help, too, although you'll need more inductance. (The coil still won't be a major part of the overall loss, though.) A top hat is better yet. You can also increase the radiation resistance by making your antenna fatter. Use multiple wires in parallel, spaced about as far as

you can, either along side each other, or fanned out, converging at the bottom.

Finally, if you've got room, you can improve your overall efficiency by about 3 dB by putting in another identical antenna/ground system somewhere nearby and connecting the two in parallel.

Roy Lewallen, W7EL

4543. Off topic request for info

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 04:37:45 UTC
From: Larry Benko <lbenko@comcast.net>
Message-ID: <CqCdnVso65gby5TeRVn-qQ@comcast.com>
Source record: 71611

As I am getting closer to retirement I have been thinking about buying a used spectrum analyzer since I will not have access to one at work. Unfortunately I am not familiar with all the models from say 5 to 15 years ago. Is there a good reference describing the different HP/Agilent, Tektronix, etc. models and which are good and which to avoid. A quick look on Ebay shows HP 4195A, 8561E, 8562A, 8562B, 8563E,8565A, 8568B,8569B, 8591E, 8593E, and 8594E. Similarly for Tektronix 492P, 494P, 495P, 495A, and 2755P. Is there some kind of a used buyers guide available. I understand spectrum analyzers at a moderate level and realize the differences between frequency range, external mixers, dynamic range, bandwidth etc. but finding the specs in a manner that makes them comparable is hard. Thanks for any advice.

73, Larry W0QE

4544. Re: Off topic request for info

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 13:50:39 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <PKkOe.234728$on1.143831@clgrps13>
Source record: 71612

> As I am getting closer to retirement I have been thinking about buying a
> used spectrum analyzer since I will not have access to one at work.
> Unfortunately I am not familiar with all the models from say 5 to 15 years
> ago. Is there a good reference describing the different HP/Agilent,
> Tektronix, etc. models and which are good and which to avoid. A quick
> look on Ebay shows HP 4195A, 8561E, 8562A, 8562B, 8563E,8565A,
> 8568B,8569B, 8591E, 8593E, and 8594E. Similarly for Tektronix 492P, 494P,
> 495P, 495A, and 2755P. Is there some kind of a used buyers guide
> available. I understand spectrum analyzers at a moderate level and
> realize the differences between frequency range, external mixers, dynamic
> range, bandwidth etc. but finding the specs in a manner that makes them
> comparable is hard. Thanks for any advice.
>
> 73, Larry W0QE

Never seen a buyers guide for spectrum analyzers. They all seem to have about the same dynamic range. The factors that really drive price are upper frequency range, tracking YIG filters, and selectivity. Do you really need 26.5 GHz, and a 10 Hz IF filter, if not you could probably save a lot with a 2.7 GHz upper limit. Then there is the HP analyzers that use the 141T storage display, that can be purchased for a very low price. I have seen many at Dayton. I would never buy a storage display without seeing it in operation though. Anritsu also has a nice line of analyzers.

I would use www.tucker.com or www.tesequity.com as a guide to the prices you could expect to pay. There are many other used test equipment dealers.

73,

Frank

4545. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 14:01:32 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <nrSdnSVbU9wyR5TeRVn-iQ@comcast.com>
Source record: 71613

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:pbWdneaUpsUq1ZTeRVn-uw@comcast.com...
> Tam
>
> That would relate very close to what the models predict. Where or how do
> you have such good ground?
>
> Dan

You don't. That is just the best case. If you can add another 20 feet of
wire to the top, and redo the inductor, the Z comes up to 16 Ohms. That's
why I asked about the trees.

Tam
>
> Tam/WB2TT wrote:
>> "dansawyeror" <dansawyeror@comcast.net> wrote in message
>> news:g-CdnUTLeoPFt5TeRVn-2Q@comcast.com...
>>
>>>Tam,
>>>
>>>The description was for the coil.
>>>
>>>The total antenna is about 15 feet base to tip. The coil is about 1/3 of
>>>the way up. The base is about 3 feet off the ground so the tip would be
>>>about 18 feet up.
>>>
>>>Dan
>>>
>>>Tam/WB2TT wrote:
>>>
>>>>"dansawyeror" <dansawyeror@comcast.net> wrote in message
>>>>news:430791DF.1010808@comcast.net...
>>>>
>>>>
>>>>>Frank,
>>>>>
>>>>>The coil measures about 60 uH. The antenna is elevated about 3 feet on
>>>>>a short tripod. The radials angle down the tripod legs and then out.
>>>>>
>>>>>The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
>>>>>form. It is centerloaded. I am looking at it accross the yard, it is
>>>>>about 6 inches long. It is would with about a point .5 pitch.
>>>>>Calculations for a 1:1 pitch predict a Q of about 450.
>>>>>

>>>>>Thanks,
>>>>>Dan
>>>>>
>>>>
>>>>Maybe I missed something, but how high is the TOP of the antenna. I.E.
>>>>How long is the whip? Is the loading coil at the base, or partway up the
>>>>antenna?
>>>>
>>>>Tam/WB2TT
>>
>> Dan,
>>
>> Over perfect ground, I get an impedance of about 2.4 Ohms, with resonance
>> very close to 3.8 MHz. What is the tallest tree in your yard?
>>
>> Tam

4546. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 17:44:16 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Q9oOe.152118$wr.90103@clgrps12>
Source record: 71614

> Frank,
>
> The coil measures about 60 uH. The antenna is elevated about 3 feet on a
> short tripod. The radials angle down the tripod legs and then out.
>
> The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
> form. It is centerloaded. I am looking at it accross the yard, it is about
> 6 inches long. It is would with about a point .5 pitch. Calculations for a
> 1:1 pitch predict a Q of about 450.
>
> Thanks,
> Dan

Thanks for the info Dan. From your comments the radials appear to be parallel with the tripod legs to ground level, and then continue at ground level for the rest of their length. What is the angle of the tripod legs? I agree with comments about adding a horizontal wire to the top of the vertical; it will probably be easier than a capacity hat. I am overloaded with work at the moment, but would like to attempt a model in a week or so when I have less work.

73,

Frank

4547. Re: Off topic request for info

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 17:58:09 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96BA6FD732717spectrumhogstarbandn@207.106.93.175>
Source record: 71615

> As I am getting closer to retirement I have been thinking about
> buying a used spectrum analyzer since I will not have access to
> one at work. Unfortunately I am not familiar with all the
> models from say 5 to 15 years ago. Is there a good reference
> describing the different HP/Agilent, Tektronix, etc. models and
> which are good and which to avoid. A quick look on Ebay shows
> HP 4195A, 8561E, 8562A, 8562B, 8563E,8565A, 8568B,8569B, 8591E,
> 8593E, and 8594E. Similarly for Tektronix 492P, 494P, 495P,
> 495A, and 2755P. Is there some kind of a used buyers guide
> available. I understand spectrum analyzers at a moderate level
> and realize the differences between frequency range, external
> mixers, dynamic range, bandwidth etc. but finding the specs in a
> manner that makes them comparable is hard. Thanks for any advice.

Larry, can't really offer any guidelines to your search, but wanted to mention that you should add IFR model A7550 to your list. I have used these for many years prior to retirement and they are a great instrument. Every so often I see one going quite cheap on Ebay.

Ed K7AAT

4548. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 18:13:59 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-4764FD.10152022082005@netnews.worldnet.att.net>
Source record: 71616

In article <1124662096.856185.141310@g47g2000cwa.googlegroups.com>,
jgboyles@aol.com wrote:

> Me wrote:
> > In article <1124578556.103105.277990@f14g2000cwb.googlegroups.com>,
> > jgboyles@aol.com wrote:
> >
> > > By the way, are you an Amateur Radio Operator?
> > > Gary N4AST
> > >
> >
> > Since 1964
> >
> >
> > Me
>
> Well Me, as for me, Amateur since 1963, professional radio engineer,
> never. I did install some cb antennas during the early 1970's and got
> paid, so I may be a professional antenna installer? Hope by these acts
> I didn't give up my Amateur status. Was in college at the time and did
> not have much $$. Why don't you give your call?
> Gary N4AST
>

I am available on 14292.0Khz (20 Meters) daytime, during the winter
months (Sept - May) and 3840Khz (75 meters) most evenings after 10Pm
local....

Stop by for a visit sometime.....

Me

4549. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 18:14:38 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-A4B9BE.10155922082005@netnews.worldnet.att.net>
Source record: 71617

In article <AoSdnfhDQY-OQpXeRVn-rQ@comcast.com>,
Ham op <hamop@comcast.net> wrote:

> Awe! A newcomer!
>
> You must be QCWA*2 minimum to post on this list. :-)

says who......

Me

4550. Re: Off topic request for info

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 18:18:39 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-070E64.10200122082005@netnews.worldnet.att.net>
Source record: 71618

In article <CqCdnVso65gby5TeRVn-qQ@comcast.com>,
Larry Benko <lbenko@comcast.net> wrote:

> As I am getting closer to retirement I have been thinking about
> buying a used spectrum analyzer since I will not have access to
> one at work. Unfortunately I am not familiar with all the
> models from say 5 to 15 years ago. Is there a good reference
> describing the different HP/Agilent, Tektronix, etc. models and
> which are good and which to avoid. A quick look on Ebay shows
> HP 4195A, 8561E, 8562A, 8562B, 8563E,8565A, 8568B,8569B, 8591E,
> 8593E, and 8594E. Similarly for Tektronix 492P, 494P, 495P,
> 495A, and 2755P. Is there some kind of a used buyers guide
> available. I understand spectrum analyzers at a moderate level
> and realize the differences between frequency range, external
> mixers, dynamic range, bandwidth etc. but finding the specs in a
> manner that makes them comparable is hard. Thanks for any advice.
>
> 73, Larry W0QE

My "rule of thumb" has always been.... HP for spectrum analyzers,
and Tektronix for Oscopes..... Fluke for Dvm's and Lambda for Power
Supplies.

Me

4551. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 18:39:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gk6v0r4tulk90@corp.supernews.com>
Source record: 71619

Frank wrote:
> . . .
> I agree with comments about adding a horizontal wire to the top of the
> vertical; it will probably be easier than a capacity hat. I am overloaded
> with work at the moment, but would like to attempt a model in a week or so
> when I have less work.

Take a look also at a tee type arrangement. That is, a horizontal wire with the tip of the vertical connected at or near its center. It might have some advantages over connecting the wire's end to the vertical. But of course it might be more involved to construct.

Roy Lewallen, W7EL

4552. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 20:57:57 UTC
From: richardharrison@webtv.net
Message-ID: <2776-430A3C55-932@storefull-3256.bay.webtv.net>
Source record: 71620

Dan, KB0QIL wrote:
"From a practical perspective it would seem to me that building a 40 foot crnter loaded dipole and putting it in the sttic or on the roof would probably perform somewhat better."

The roof or attic may be noisy receiving locations.

The ionospheric spot which effectively reflects a high frequency signal to a point beyond the horizon is variable so that the received signal direction varies from the true bearing of the transmitter, The received signal elevation angle also varies from that predicted by the assumed layer height for any given path length, and may change from instant to instant.

The differences between predicted and actual azimuth and elevation angles may at any momement be several degrees. These differences make high frequency direction finding complicated, but results may be good enough for some pracical purposes. Optimum vertical and horizontal angles are sought in directional antenna design but enough beamwidth is needed to accommodate
the angular variations which occur.

Over sea water, ground wave propagation is good and loss is low as compared with propagation over earth. Frequencies up to about 5 MHz are used for communications beyond the line of sight between ships and between ships and shore. These frequencies are also used for tropical broadcasting among islands.

For ionospheric reflection to near spots beyond the line of sight, near vertical incidence reflections are used. The frequency must be below the maximum usable frequency for vertical incidence at the transmitting site.

For ground wave propagation a vertical transmitting antenna is used.

Horizontally polarized antennas are often used for sky wave signals because reflection from the ionosphere makes equal strength components, horizontally polarized and vertically polarized, from the incident wave, regardless of its initial polarization.

Most disturbing noise is that generated within ground wave range of the receiving antenna. It is vertically polarized.There is no ground wave propagation of horizontally polarized waves. Thus, a horizontally polarized receiving antenna ignores much of the available noise. However, it receives as much signal from the sky wave as a vertically polarized antenna would.

If a single antenna is to be used for both transmitting and receiving a shy wave, a forizontally polarized antenna may be the better choice due to its noise rejection. See "Radio Antenna Engineering" by Edmund A. Laport for details.

Best regards, Richard Harrison, KB5WZI

4553. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 21:46:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dedh4h$op2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71621

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:2776-430A3C55-932@storefull-3256.bay.webtv.net...
> Dan, KB0QIL wrote:
> "From a practical perspective it would seem to me that building a 40
> foot crnter loaded dipole and putting it in the sttic or on the roof
> would probably perform somewhat better."
>
> The roof or attic may be noisy receiving locations.
>
> The ionospheric spot which effectively reflects a high frequency
signal
> to a point beyond the horizon is variable so that the received
signal
> direction varies from the true bearing of the transmitter, The
received
> signal elevation angle also varies from that predicted by the
assumed
> layer height for any given path length, and may change from instant
to
> instant.
>
> The differences between predicted and actual azimuth and elevation
> angles may at any momement be several degrees. These differences
make
> high frequency direction finding complicated, but results may be
good
> enough for some pracical purposes. Optimum vertical and horizontal
> angles are sought in directional antenna design but enough beamwidth
is
> needed to accommodate
> the angular variations which occur.
>
> Over sea water, ground wave propagation is good and loss is low as
> compared with propagation over earth. Frequencies up to about 5 MHz
are
> used for communications beyond the line of sight between ships and
> between ships and shore. These frequencies are also used for
tropical
> broadcasting among islands.
>
> For ionospheric reflection to near spots beyond the line of sight,
near
> vertical incidence reflections are used. The frequency must be below
the

> maximum usable frequency for vertical incidence at the transmitting
> site.
>
> For ground wave propagation a vertical transmitting antenna is used.
>
> Horizontally polarized antennas are often used for sky wave signals
> because reflection from the ionosphere makes equal strength
components,
> horizontally polarized and vertically polarized, from the incident
wave,
> regardless of its initial polarization.
>
> Most disturbing noise is that generated within ground wave range of
the
> receiving antenna. It is vertically polarized.There is no ground
wave
> propagation of horizontally polarized waves. Thus, a horizontally
> polarized receiving antenna ignores much of the available noise.
> However, it receives as much signal from the sky wave as a
vertically
> polarized antenna would.
>
> If a single antenna is to be used for both transmitting and
receiving a
> shy wave, a forizontally polarized antenna may be the better choice
due
> to its noise rejection. See "Radio Antenna Engineering" by Edmund A.
> Laport for details.
>
> Best regards, Richard Harrison, KB5WZI
>
==========

Richard,

I am impressed by your logical descriptions and explanations of skywave and groundwave propagation. You are more than convincing. No doubt reinforced from practical experience. It all makes sense. Something much needed on these newsgroups.

I notice you do not treat the works of so-called 'experts' as bibles but as a means of further study.

Reg, G4FGQ

4554. Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 21:59:28 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <4VrOe.378$_84.352@newsread1.news.atl.earthlink.net>
Source record: 71622

I am putting up my old TA-33SR by Mosley. I need to know how many windings are needed on the choke. I seem to remember 6" diameter, but not the amount of windings.

According to the manual there is no choke indicated at all.

Anyone know anything about this?

Dan/W4NTI

4555. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 22:34:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dedjuj$5aa$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71623

"Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message
news:4VrOe.378$_84.352@newsread1.news.atl.earthlink.net...
> I am putting up my old TA-33SR by Mosley. I need to know how many
windings
> are needed on the choke. I seem to remember 6" diameter, but not
the
> amount of windings.
>
> According to the manual there is no choke indicated at all.
>
> Anyone know anything about this?
>
> Dan/W4NTI
>
==========
Dan, I am unable to help you.

Because, in common with most other people, I havn't the foggiest idea
what a TA-33SR is.

Questioners would do better by not depending on other people's
imagination. It takes only a few seconds to provide a little more
essential information. If you can't find the time then it can't matter
very much anyway.

Reg.

4556. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 22:45:32 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.22.22.45.31.74927@gmail.com>
Source record: 71624

Dan:

Look here:
http://bama.edebris.com/manuals/mosley/ta33sr

at the files:
00readme.txt (72 bytes)
ta33sr.pdf (322 KB)

John

On Mon, 22 Aug 2005 21:59:28 +0000, Dan/W4NTI wrote:

> I am putting up my old TA-33SR by Mosley. I need to know how many windings
> are needed on the choke. I seem to remember 6" diameter, but not the
> amount of windings.
>
> According to the manual there is no choke indicated at all.
>
> Anyone know anything about this?
>
> Dan/W4NTI

4557. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:04:25 UTC
From: dplatt@radagast.org
Message-ID: <11gkmfpfhu29522@corp.supernews.com>
Source record: 71625

>> I am putting up my old TA-33SR by Mosley. I need to know how many windings
>> are needed on the choke. I seem to remember 6" diameter, but not the
>> amount of windings.
>>
>> According to the manual there is no choke indicated at all.
>>
>> Anyone know anything about this?
>>
>> Dan/W4NTI
>>
>==========
>Dan, I am unable to help you.
>
>Because, in common with most other people, I havn't the foggiest idea
>what a TA-33SR is.
>
>Questioners would do better by not depending on other people's
>imagination. It takes only a few seconds to provide a little more
>essential information. If you can't find the time then it can't matter
>very much anyway.

Reg, even to me (a relative newbie) "Mosley TA-33SR" provides all of the information needed to identify what Dan is talking about. A very brief Google identifies as a triband trap beam. I have little doubt that anyone who has ever owned one (and is thus likely to have the direct information that Dan is looking for) would recognize it from his description with no further description being required.

Dan - since Mosely's manual doesn't mention such a choke, and the instruction sheet indicates a direct attachment of the coax to the driven-element feedpoint terminals, I doubt that the details of the choke are terribly critical. You could probably use any of the plans on the net for an air-wound coaxial choke-balun. One plan I see uses 18-21 feet of coax, close-wound solenoid-style on a 5" PVC form (stated to be good for 160-10 meters).

Another site (http://www.bcdxc.org/balun_information.htm#Ed,%20WA2SRQ) has a table of air-core balun impedances, as a function of both frequency and construction (turn count and diameter). This chart suggests to me that 4 turns, 6 5/8" solenoid-wound might be a good option for you, as its impedance peaks at around the 15-meter band and is 500 ohms or better between 10 and 20 meters.

Some folks seem to prefer solenoid-wound air baluns, others prefer scramble-wound. There seems to be a fair bit of disagreement as to

which style works better, and why.

The other choices are to use a different sort of balun (e.g. a W2DU ferrite-bead choke), or none at all.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

4558. How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:08:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1c6d3$430a5b1a$97d55b95$23134@ALLTEL.NET>
Source record: 71526

How can I test how well a choke balun is performing? I know how to test a transformer balun, but am cluless as how I can compare several different choke balun approaches.

4559. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:18:14 UTC
From: jgboyles@aol.com
Message-ID: <1124752694.238918.218930@g49g2000cwa.googlegroups.com>
Source record: 71528

Dan/W4NTI wrote:
> I am putting up my old TA-33SR by Mosley. I need to know how many windings
> are needed on the choke. I seem to remember 6" diameter, but not the
> amount of windings.
>
> According to the manual there is no choke indicated at all.
>
> Anyone know anything about this?
>
> Dan/W4NTI

Hi Dan, The choke on a 3 band Yagi is to decrease feedline
radiation, a choke balun. If you don't use a choke balun, you could
have some pattern distortion, it would deviate from the classical 3
element Yagi pattern.
I think the rule of thumb is have enough chocking impedance on the
lowest band (20M) so that it is 10X the antenna impedance (50 ohm).
You wind your coax into a coil that will accomplish this.
The TA-33's that I have seen did not have the choke balun. In casual
Amateur operation of the TA-33 I doubt you would miss the choke, or
know if it was there or not.
Gary N4AST

4560. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:18:15 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.22.23.18.10.809849@gmail.com>
Source record: 71527

I was thinking more of contacting larry at:

wa9vrh@mtco.com

... my thinking being, since he supplied the manual and his email, he most likely would have seen that question, owned the beam and familiar with the construction of the choke/balun...

John

On Mon, 22 Aug 2005 21:59:28 +0000, Dan/W4NTI wrote:

> I am putting up my old TA-33SR by Mosley. I need to know how many windings
> are needed on the choke. I seem to remember 6" diameter, but not the
> amount of windings.
>
> According to the manual there is no choke indicated at all.
>
> Anyone know anything about this?
>
> Dan/W4NTI

4561. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:20:33 UTC
From: dplatt@radagast.org
Message-ID: <11gkne1npu7e5e@corp.supernews.com>
Source record: 71529

>How can I test how well a choke balun is performing? I know how to test a
>transformer balun, but am cluless as how I can compare several different
>choke balun approaches.

One possible method comes to mind... use an RF current probe to see how much RF is actually flowing on the outside of your feedline. I've seen plans for such probes, made from a clamp-on ferrite choke core and winding (making a simple RF transformer) plus a diode, cap, and meter.

In order to distinguish conducted RF (which the balun would be expected to be able to stop) from induced RF from the antenna itself (which would probably go right around the balun) you might want to try disconnecting the antenna itself from the output of the balun, and substituting an equivalent resistance/reactance at the frequency of interest. Push a few watts into the "dummy load", run the current probe down the feedline from the balun to your rig, and see what the peak current is. Repeat at multiple frequencies, and (if practical) with different feedline lengths. Using a half-wavelength-long coaxial feedline would probably maximize the sensitivity of the test, as it would present a low RF impedance on the outside of the coax at the "bottom" of the current balun.

Repeat with other current baluns and compare.

To be complete, I suppose that you'd also want to measure the temperature of each balun before and after a high-power test, to try to get some feeling for the amount of loss in the balun itself.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4562. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:37:48 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <gltOe.11211$M3.6524@trnddc05>
Source record: 71530

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:1c6d3$430a5b1a$97d55b95$23134@ALLTEL.NET...
> How can I test how well a choke balun is performing? I know how to test a
> transformer balun, but am cluless as how I can compare several different
> choke balun approaches.

Fred

I dont have the skills nor knowledge to tell you how to test the choke
balun. I do have some experience with testing of my home made choke
baluns.
I made connection to the shield of the coax that is surrounded by the
"choke balun", and measured the impedance across it. My reasoning was that
the major objective of the balun was to present a high impedance to current
along the outside of the coax.
It occurres to me that my reasoning might be invalid, since it seems too
obvious, and you already know the "impedance" test isnt adequet.

Jerry

4563. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:43:53 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.22.23.43.51.441986@gmail.com>
Source record: 71531

Fred:

With a toroid core, using the manufacturers data on uh/mh per number of turns, al factor and such, should allow you to compute the inductance and come to a value of the impedance that inductance poses at the operating freq(s) in question...

Major problem I see is a resonance(s) occurring with feedline length and the inductance chosen, but even that could be designed out with a pencil and paper... the physical testing you are inquiring about has my interest also...

John

On Mon, 22 Aug 2005 19:08:43 -0400, Fred W4JLE wrote:

> How can I test how well a choke balun is performing? I know how to test a
> transformer balun, but am cluless as how I can compare several different
> choke balun approaches.

4564. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:44:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gkoq8aqf7ik68@corp.supernews.com>
Source record: 71532

Fred W4JLE wrote:
> How can I test how well a choke balun is performing? I know how to test a
> transformer balun, but am cluless as how I can compare several different
> choke balun approaches.
>

You can measure the impedance by shorting the input conductors together and the output conductors together. Then connect the input conductors to one terminal of an impedance measuring device such as an antenna analyzer or impedance bridge, and the output conductors to the other terminal. An impedance of around 500 - 1000 ohms is generally adequate.

If you want to measure its effectiveness in place, you can construct a current probe like the one shown in Fig. 12 of http://www.eznec.com/Amateur/Articles/Baluns.pdf. It'll give you a quantitative measure of the feedline current. You can use a snap-on split core for convenience. The value at the choke should be very low, but it might increase considerably about a quarter wavelength down the line due to induced common mode current. The solution to that is to insert another choke balun at that point.

Roy Lewallen, W7EL

4565. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:46:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124754555_381@spool6-east.superfeed.net>
Source record: 71533

Fred W4JLE wrote:
> How can I test how well a choke balun is performing? I know how to test a
> transformer balun, but am cluless as how I can compare several different
> choke balun approaches.

I have a toroidal pick-up coil slipped over my coax in the
shack to monitor the magnitude of common-mode currents.
That tells me how chokes, etc., are performing.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4566. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-22 23:59:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dedossfah1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71534

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11gkmfpfhu29522@corp.supernews.com...
> >> I am putting up my old TA-33SR by Mosley. I need to know how
many windings
> >> are needed on the choke. I seem to remember 6" diameter, but
not the
> >> amount of windings.
> >>
> >> According to the manual there is no choke indicated at all.
> >>
> >> Anyone know anything about this?
> >>
> >> Dan/W4NTI
> >>
> >==================================
> >Dan, I am unable to help you.
> >
> >Because, in common with most other people, I havn't the foggiest
idea
> >what a TA-33SR is.
> >
> >Questioners would do better by not depending on other people's
> >imagination. It takes only a few seconds to provide a little more
> >essential information. If you can't find the time then it can't
matter
> >very much anyway.
>
> Reg, even to me (a relative newbie) "Mosley TA-33SR" provides all of
> the information needed to identify what Dan is talking about. A
very
> brief Google identifies as a triband trap beam. I have little doubt
> that anyone who has ever owned one (and is thus likely to have the
> direct information that Dan is looking for) would recognize it from
> his description with no further description being required.
>
> Dan - since Mosely's manual doesn't mention such a choke, and the
> instruction sheet indicates a direct attachment of the coax to the
> driven-element feedpoint terminals, I doubt that the details of the
> choke are terribly critical. You could probably use any of the
plans
> on the net for an air-wound coaxial choke-balun. One plan I see
uses
> 18-21 feet of coax, close-wound solenoid-style on a 5" PVC form
> (stated to be good for 160-10 meters).

>
> Another site
(http://www.bcdxc.org/balun_information.htm#Ed,%20WA2SRQ)
> has a table of air-core balun impedances, as a function of both
> frequency and construction (turn count and diameter). This chart
> suggests to me that 4 turns, 6 5/8" solenoid-wound might be a good
> option for you, as its impedance peaks at around the 15-meter band
and
> is 500 ohms or better between 10 and 20 meters.
>
> Some folks seem to prefer solenoid-wound air baluns, others prefer
> scramble-wound. There seems to be a fair bit of disagreement as to
> which style works better, and why.
>
> The other choices are to use a different sort of balun (e.g. a W2DU
> ferrite-bead choke), or none at all.
>
> --
> Dave Platt
==========

Dave, having learned from you, a newbie, not from the enquirer, what a
TA-33SR is, and having inspected the website you specify, I am a
little wiser from reading the baffle-gab.

I agree with your recomendations. Just get a hank of coax, suspend it
in the feedline and away you go.

But it may be more mechanically convenient and electrically better to
wind a few turns of coax or Radio Shack twin speaker wire around a
ferrite toroidal core.

Or possibly do without a balun altogether. Try it and see what
happens. It's so easy to do.

Reg.

4567. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 00:01:33 UTC
From: jgboyles@aol.com
Message-ID: <1124753999.711129.26180@g43g2000cwa.googlegroups.com>
Source record: 71535

Fred W4JLE wrote:
> How can I test how well a choke balun is performing? I know how to test a
> transformer balun, but am cluless as how I can compare several different
> choke balun approaches.

Hi Fred, If you have an MFJ antenna analyzer it is easy. You have
to measure the choking Impedance at the frequency of interest. Rule of
thumb is 10X the transmission line or Antenna Impedance, depending on
where the the balun is located. 50 ohm impedance, 500 ohm choke
impedance.
The 259 manual has a section on testing baluns. You can download the
manual from MFJ.
Gary N4AST

4568. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 00:19:29 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.23.00.19.27.764187@gmail.com>
Source record: 71536

Fred:

As my last post gave away, my chokes are constructed on math and observation in practical work... (well, prayer too <grin>)

I see roy is recommending 10x the impedance of the feedline (coax?) for the choke/balun, minimum (I am guessing here a bit), he obviously knows what he is speaking about, however, at 160m when you are struck with the physical dimensions of the choke/balun needed--well, at those times I have accepted a 5:1 ratio of choke/balun impedance to feedline impedance...

... but then, I am here to learn ...

John

On Mon, 22 Aug 2005 19:08:43 -0400, Fred W4JLE wrote:

> How can I test how well a choke balun is performing? I know how to test a
> transformer balun, but am cluless as how I can compare several different
> choke balun approaches.

4569. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 01:18:30 UTC
From: BillJ <w3fi@nwboronet.com>
Message-ID: <wPuOe.116$Bv2.1079@eagle.america.net>
Source record: 71537

Dan/W4NTI wrote:
> I am putting up my old TA-33SR by Mosley. I need to know how many windings
> are needed on the choke. I seem to remember 6" diameter, but not the
> amount of windings.
>
> According to the manual there is no choke indicated at all.
>
> Anyone know anything about this?
>
> Dan/W4NTI
>
>
My TA-33 manual calls for 5 turns at 6 inch diameter
Bill, W3FI

4570. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 01:23:39 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <28fe0$430a7ad8$97d55b95$26031@ALLTEL.NET>
Source record: 71538

Thanks to all for the information. Roy I particularly wanted to thank you for the copy of your article from the antenna compendium.

I appreciate all the input from others as well. I was planning to do a number of tests with ferrite beads and air coil baluns.

The data accumulated will be presented here for all to peruse. Thanks again guys!

4571. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 01:57:31 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <n40lg193fcipg6nna0740fev0aoq4hm6cn@4ax.com>
Source record: 71539

On Mon, 22 Aug 2005 21:18:30 -0400, BillJ <w3fi@nwboronet.com> wrote:

>Dan/W4NTI wrote:
>> I am putting up my old TA-33SR by Mosley. I need to know how many windings
>> are needed on the choke. I seem to remember 6" diameter, but not the
>> amount of windings.
>>
>> According to the manual there is no choke indicated at all.
>>
>> Anyone know anything about this?
>>
>> Dan/W4NTI
>>
>>
>My TA-33 manual calls for 5 turns at 6 inch diameter
>Bill, W3FI

That your TA-33 manual calls for a 5-turn 6" diameter balun fabbed from coax is welcome news, Bill, Mr. Mosely must have gotten religion lately. I had a 33 when they were first made available, but no balun was included. So I had a talk with Mr. Mosely (I've forgotten his first name) and asked him why no balun. He became irate when I admonished him for excluding the balun. He said his antennas were designed to not need a balun, and he admonished me for claiming they needed a balun to avoid pattern distortion due to unwanted radiation from the feedline. He kept that same erroneous viewpoint for as long as I know, until your manual now calls for a balun. Will wonders never cease!

Walt, W2DU

4572. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 02:07:13 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <430A84D1.1000005@comcast.net>
Source record: 71540

Roy,

Thanks. This might be feasible. The site would support 50 foot wire from the tip. At 500 watts what would the current in the horizontal leg be? In other words what is the minimum effective gage?

What is the purpose of this leg? Is it capacitive or does it begin to look like something else. What are it directional characteristics? Dipoles nodes are perpendicular while long wire nodes are parallel.

Dan

Roy Lewallen wrote:
> Frank wrote:
>
>> . . .
>> I agree with comments about adding a horizontal wire to the top of the
>> vertical; it will probably be easier than a capacity hat. I am
>> overloaded with work at the moment, but would like to attempt a model
>> in a week or so when I have less work.
>
>
> Take a look also at a tee type arrangement. That is, a horizontal wire
> with the tip of the vertical connected at or near its center. It might
> have some advantages over connecting the wire's end to the vertical. But
> of course it might be more involved to construct.
>
> Roy Lewallen, W7EL

4573. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 02:33:31 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <4q0lg1dm8ro1mu692b6c2rvg3f1ojssa0s@4ax.com>
Source record: 71541

On Mon, 22 Aug 2005 17:19:29 -0700, John Smith
<assemblywizard@gmail.com> wrote:

>Fred:
>
>As my last post gave away, my chokes are constructed on math and
>observation in practical work... (well, prayer too <grin>)
>
>I see roy is recommending 10x the impedance of the feedline (coax?) for
>the choke/balun, minimum (I am guessing here a bit), he obviously knows
>what he is speaking about, however, at 160m when you are struck with the
>physical dimensions of the choke/balun needed--well, at those times I have
>accepted a 5:1 ratio of choke/balun impedance to feedline impedance...
>
>... but then, I am here to learn ...
>
>John
>
>
>On Mon, 22 Aug 2005 19:08:43 -0400, Fred W4JLE wrote:
>
>> How can I test how well a choke balun is performing? I know how to test a
>> transformer balun, but am cluless as how I can compare several different
>> choke balun approaches.

Fred, Roy's method is fine, but here's the second way I perform the
test with baluns constructed with ferrite beads surrounding a
transmission line. However, it does require two baluns.

To begin we connect the two baluns back-to-back, i.e. connect the
output of the first to the output of the second, and loading the
normally unbalanced input terminals of the second balun (now the
output) with a 50-ohm resistor.

Next, feed a signal into the input of the first balun and measure the
voltage between the outer surface of the line feeding the input of the
first balun and the outer surface of the unbalanced input terminals at
the output of the second balun. In the ideal balun the voltage between
these two points would be zero.

Next, disconnect the connections between the two baluns, and reconnect
them, reversing the connections. Now repeat the voltage measurement
between the same points as in the previous measurements.

In the ideal balun the voltage now measured will also be zero.

However, with a real balun, the voltage between the two points specified will usually be zero when the connection between the two baluns is such that the outer conductors and inner conductors of both baluns are directly connected, respectively.

But the real test of the baluns comes when the outer conductor of the first balun is connected to the inner conductor of the second balun, and the outer conductor of the first balun is connected to the inner conductor the second balun. The lower the voltage obtained in this condition, the better the balun. With a perfect balun the voltage will again be zero, but if the effect of the balun is zero the voltgage measured across the specified point will equal the input voltage.

The ratio of the voltage at the input of the balun to the voltage appearing at the points specified above is twice the ratio of the forward voltage to the common mode voltage that would appear on the outside surface of the feed line when that balun is used in practice.

Walt, W2DU

4574. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 02:55:26 UTC
From: Pat Cox <peacox@gloryroad.net>
Message-ID: <430A901E.42BAB826@gloryroad.net>
Source record: 71542

Mr. Moseley's first name was Carl. He was known on the air as "the Old Man Himself." I worked him on 40 cw when I was a novice in 1967. He has probably been a silent key for 30 years or longer. I don't remember his call but I have his card in my card file. K4AVO

Walter Maxwell wrote:

> On Mon, 22 Aug 2005 21:18:30 -0400, BillJ <w3fi@nwboronet.com> wrote:
>
> >Dan/W4NTI wrote:
> >> I am putting up my old TA-33SR by Mosley. I need to know how many windings
> >> are needed on the choke. I seem to remember 6" diameter, but not the
> >> amount of windings.
> >>
> >> According to the manual there is no choke indicated at all.
> >>
> >> Anyone know anything about this?
> >>
> >> Dan/W4NTI
> >>
> >>
> >My TA-33 manual calls for 5 turns at 6 inch diameter
> >Bill, W3FI
>
> That your TA-33 manual calls for a 5-turn 6" diameter balun fabbed
> from coax is welcome news, Bill, Mr. Mosely must have gotten religion
> lately. I had a 33 when they were first made available, but no balun
> was included. So I had a talk with Mr. Mosely (I've forgotten his
> first name) and asked him why no balun. He became irate when I
> admonished him for excluding the balun. He said his antennas were
> designed to not need a balun, and he admonished me for claiming they
> needed a balun to avoid pattern distortion due to unwanted radiation
> from the feedline. He kept that same erroneous viewpoint for as long
> as I know, until your manual now calls for a balun. Will wonders never
> cease!
>
> Walt, W2DU

4575. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 03:00:02 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <t54lg11tm9c60i8l3oilqcjla18hjq9itp@4ax.com>
Source record: 71543

On Mon, 22 Aug 2005 22:55:26 -0400, Pat Cox <peacox@gloryroad.net>
wrote:

>Mr. Moseley's first name was Carl. He was known on the air as "the Old Man
>Himself." I worked him on 40 cw when I was a novice in 1967. He has probably been
>a silent key for 30 years or longer. I don't remember his call but I have his card
>in my card file. K4AVO

Yes, Pat, the name Carl came to me only a few minutes after I posted,
you know, the Alzheimers syndrome.

Walt, W2DU

>> >My TA-33 manual calls for 5 turns at 6 inch diameter
>> >Bill, W3FI
>>
>> That your TA-33 manual calls for a 5-turn 6" diameter balun fabbed
>> from coax is welcome news, Bill, Mr. Mosely must have gotten religion
>> lately. I had a 33 when they were first made available, but no balun
>> was included. So I had a talk with Mr. Mosely (I've forgotten his
>> first name) and asked him why no balun. He became irate when I
>> admonished him for excluding the balun. He said his antennas were
>> designed to not need a balun, and he admonished me for claiming they
>> needed a balun to avoid pattern distortion due to unwanted radiation
>> from the feedline. He kept that same erroneous viewpoint for as long
>> as I know, until your manual now calls for a balun. Will wonders never
>> cease!
>>
>> Walt, W2DU

4576. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 03:57:05 UTC
From: richardharrison@webtv.net
Message-ID: <1850-430A9E91-888@storefull-3257.bay.webtv.net>
Source record: 71544

Reg, G4FGQ wrote:
"There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire transmission line.

The antenna consists of three 1/4-wave horizontal radiators spaced at 120 degree intervals.

Is the radiation pattern in the horizontal plane perfectly omnidirectional?"

The question is easy, I think. The horizontal 1/4-wave elements have nulls off their tips, so they can`t produce a perfect omnidirectional pattern.

Not knowing when to quit, I`ll also speculate that at distant points from the antenna, the total phase from two elements will produce a total phase difference of 180-degrees which consists of a total of radiated field degree difference and path distance degree difference. Maybe more nulls. I wrote "two elements", because I`m thinking of a dipole in a V configuration with the 3rd element perpendicular to the dipole as being more or less along for the ride. Perhaps that`s an oversimplification.

Someone likely has a program which will model Reg`s 3-phase antenna. I don`t, and I have no experience with 3-phase antennas. I`ve done 3-phase circuit problems and recognize the balanced load, even if the antennas are unbalanced.

The system is symmetrical, so each of the loads (antenna elements) takes the same power. The total load power is 3 times the power of a single element.

The loads are resonant, so (cos theta) is unity. The elements look like resistors. Element power is element volts times element amps.

The load is equivalent to a Y-connection.. So, the line to line voltage is the square root of 3 (1.732) times the volts between the line and neutral.

Reg also wanted to know the impedance of the antenna, I believe, but its numerical value depends on construction, height of the elements, their size, and coupling, if any, to their surroundings. 35 ohms might have been a good guess.

Voltage to current ratio of the elements gives their resistance.

The volts or amps of the balanced 3-phases can be represented by three equal arrows separated by 120-degrees. Their instantaneous values always total zero.

The idea of a polyphase antenna is interesting but I don`t see what justifies its increased complexity, unless it happens to place nulls exactly where needed for required protection of broadcasters already on the air or permitted when a new broadcaster is seeking accommodation. In that case, the elements would most likely be vertical to launch a decent ground wave.

Best regards, Richard Harrison, KB5WZI

4577. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 04:27:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gl9d35r5mhc97@corp.supernews.com>
Source record: 71545

To determine the horizontal wire current, download the free EZNEC demo from http://eznec.com. That's exactly the kind of thing it's good for.

If you put a single horizontal wire out to make an L shape, the wire radiates a considerable amount. Being as low as it is, a lot of the power will be dissipated in the ground, and only a small fraction will be radiated at a low elevation angle. But if you connect to the center of a horizontal wire to make a T shape, the fields from the two halves of the horizontal wire will nearly cancel, so it'll radiate very little. Its main effect, like a capacitive top hat, will be to even out the current in your vertical wire, which will raise the radiation resistance and therefore the efficiency.

EZNEC or a similar program will quickly show you the differences in field strength in various directions for the antenna as it is, and with either of the top loading configurations.

Roy Lewallen, W7EL

dansawyeror wrote:
> Roy,
>
> Thanks. This might be feasible. The site would support 50 foot wire from
> the tip. At 500 watts what would the current in the horizontal leg be?
> In other words what is the minimum effective gage?
>
> What is the purpose of this leg? Is it capacitive or does it begin to
> look like something else. What are it directional characteristics?
> Dipoles nodes are perpendicular while long wire nodes are parallel.
>
> Dan
>
> Roy Lewallen wrote:
>
>> Frank wrote:
>>
>>> . . .
>>> I agree with comments about adding a horizontal wire to the top of
>>> the vertical; it will probably be easier than a capacity hat. I am
>>> overloaded with work at the moment, but would like to attempt a model
>>> in a week or so when I have less work.
>>
>>
>>
>> Take a look also at a tee type arrangement. That is, a horizontal wire

>> with the tip of the vertical connected at or near its center. It might
>> have some advantages over connecting the wire's end to the vertical.
>> But of course it might be more involved to construct.
>>
>> Roy Lewallen, W7EL

4578. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 04:30:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gl9ie7o80256c@corp.supernews.com>
Source record: 71546

I recall helping put up a beam for the Denver Radio Club station in about 1972 or 3, and one of the instructions was to wind the coax into a choke at the feedpoint. At the time I didn't understand quite why or what it did, but it was there in the instructions. Don't recall what kind of beam it was, but considering the popularity of the TA33, it might well have been that model.

Roy Lewallen, W7EL

Walter Maxwell wrote:
>>>
>>>That your TA-33 manual calls for a 5-turn 6" diameter balun fabbed
>>>from coax is welcome news, Bill, Mr. Mosely must have gotten religion
>>>lately. I had a 33 when they were first made available, but no balun
>>>was included. So I had a talk with Mr. Mosely (I've forgotten his
>>>first name) and asked him why no balun. He became irate when I
>>>admonished him for excluding the balun. He said his antennas were
>>>designed to not need a balun, and he admonished me for claiming they
>>>needed a balun to avoid pattern distortion due to unwanted radiation
>>>from the feedline. He kept that same erroneous viewpoint for as long
>>>as I know, until your manual now calls for a balun. Will wonders never
>>>cease!
>>>
>>>Walt, W2DU
>
>

4579. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 04:40:10 UTC
From: nm5k@wt.net
Message-ID: <1124772010.011536.128450@g14g2000cwa.googlegroups.com>
Source record: 71547

There is no ground wave
propagation of horizontally polarized waves. Thus, a horizontally
polarized receiving antenna ignores much of the available noise.

There can be exceptions to this though. There is a horizontal "space
wave" and it can cause all kinds of noise problems. In fact, I have
had just as much noise problems with horizontal dipoles, as I have
with verticals. Much of the local noise here is power line noise.
The lines are horizontal in general, and do emit a horizontaly
polarized
space wave which can travel a fair piece. I've found at this qth,
polarization and noise don't always follow the expected norms.
I've had horizontal antennas that picked up horrible amounts of noise.
But....On the bright side...it does verify that they are working... :/

Here in the cement jungle, I think noise can be about any polarization
depending on the source. Some is vertical, but just as much is also
horizontal. Of course, being vertical can follow a true ground wave
type of propogation, I would expect vertical noise to travel farther
than horizontal if you exceeded the direct line of sight. MK

4580. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 06:06:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o9elg1dcr4san4c3pr3k49dks08osn2lam@4ax.com>
Source record: 71548

On Mon, 22 Aug 2005 22:57:05 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Reg also wanted to know the impedance of the antenna, I believe, but its
>numerical value depends on construction, height of the elements, their
>size, and coupling, if any, to their surroundings. 35 ohms might have
>been a good guess.

Hi Richard,

A reasonable guess indeed, given that the monopole with two radials is not too terribly different.

>The idea of a polyphase antenna is interesting but I don`t see what
>justifies its increased complexity, unless it happens to place nulls

Well, in phact the fases contribute to null philling - but not completely so.

>In that case, the elements would most likely be vertical to launch a decent
>ground wave.

Interesting lobes change, with it turned into an upside down Y (like the star for a Mercedes) the result is to pump the clouds to more effect. When turned to present a right side up Y, the result is distinctly more inclined towards the horizon, but still a better horizontal polarization performer than vertical (which is attended by many more variables related to ground and height, of course).

73's
Richard Clark, KB7QHC

4581. Jetstream 2015F coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 09:13:36 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <3pplg1913il62fpdor3ftf5sr41q45dlmj@4ax.com>
Source record: 71549

Has anyone here tried the Jetstream 2015F coax cable from R&L? Is it
any good for a 50 ft run at 440 MHz?

4582. Dick BIRD's (G4ZU) death

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 09:20:12 UTC
From: JC <menardjc@wanadoo.fr>
Message-ID: <430aea4c$0$17200$8fcfb975@news.wanadoo.fr>
Source record: 71550

Dick died on August 16th in his house near Carcassonne (South) of France.
Dick, well known in the HAM community, was the creator in the fifties of the
MINIBEAM and, since, of several innovative antenna designs such as the
BIRD'S CAGE, the BOW & ARROW (or Jungle Job) beam....
He was living in France since 1999 using the call F6IDC until 2001.

We will miss him.

F8ND

4583. Re: Jetstream 2015F coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 09:46:37 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <1gCOe.10640$jr4.6789@fe3.news.blueyonder.co.uk>
Source record: 71551

"Mike M." <notme@invalid.email.net> wrote in message
news:3pplg1913il62fpdor3ftf5sr41q45dlmj@4ax.com...
> Has anyone here tried the Jetstream 2015F coax cable from R&L? Is it
> any good for a 50 ft run at 440 MHz?

R&L ??????

Lee.....

4584. Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 10:08:46 UTC
From: andy <drbrain@hot.ee>
Message-ID: <1124791726.680838.154290@g47g2000cwa.googlegroups.com>
Source record: 71552

Asked something similar while ago but this time I will surely build the thing. So, I will put up a vertical over metal roof. Roof is 11 by 35 metres, 17m from ground, vertical will be 7m from one end of the roof, support (a fishing pole) will be 9.5m high. Feeder will be unbalanced open wire (173 ohms) described by K7JEB in this group.
And then autotuner. I want to operate on 30 and 17, 40 would be bonus, 20 optional. 80 would be very nice too......
Shortly, would like to have a compromise antenna for 80, 30, 17. Autotuner will do the work but why not try to make it bit easyer fot it. To get 80, i feel that i need to coil the wire around the fishing pole. If I would coil 20 metres, would feedpoint impedance be same (yes, not efficiency) as if wire would be stretched out? If not, should I coil more or less and by what margin? And what length for feedline? Minimum would be 8m. I guess I'd like to have some kind of "vertical G5RV". Did some modeling using 4nec2 but its like banging head against wall.. So, any educated guess/opinnion/suggestion will be most welcome. Otherwise I will cut everything random and, I'm afraid, result will be appropriate too..
Sorry for lenghty post.

Andrus

4585. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 13:14:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124802997_993@spool6-east.superfeed.net>
Source record: 71553

andy wrote:
> To get 80, i feel that i need to coil the wire around the fishing
> pole.

You can do that to get 80m, but you will degrade the performance
on the other bands. Probably the best way to get 80m and not
degrade the performance on the other bands is to use a high-Q
base loading coil that can be switched in for 80m and out for
the higher frequencies.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4586. Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 13:28:32 UTC
From: "B.Binggeli" <hb9fu@bluewin.ch>
Message-ID: <430B2480.5040006@bluewin.ch>
Source record: 71554

Sali Werner,
hier noch eine gute Studie ï¿œber Baluns. (falls nicht schon selbst gefunden)
73 Bruno
http://www.eznec.com/Amateur/Articles/Baluns.pdf

4587. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 14:29:30 UTC
From: chuck <nospam@nospam.net>
Message-ID: <epGOe.660$_84.580@newsread1.news.atl.earthlink.net>
Source record: 71555

Hello Andy,

Have you established that the pieces of the metal roof are electrically bonded? I've always wondered whether there is adequate bonding between adjacent pieces of metal roofing.

Chuck

andy wrote:
> Asked something similar while ago but this time I will surely build the
> thing. So, I will put up a vertical over metal roof. Roof is 11 by 35
> metres, 17m from ground, vertical will be 7m from one end of the roof,
> support (a fishing pole) will be 9.5m high. Feeder will be unbalanced
> open wire (173 ohms) described by K7JEB in this group.
> And then autotuner. I want to operate on 30 and 17, 40 would be bonus,
> 20 optional. 80 would be very nice too......
> Shortly, would like to have a compromise antenna for 80, 30, 17.
> Autotuner will do the work but why not try to make it bit easyer fot
> it. To get 80, i feel that i need to coil the wire around the fishing
> pole. If I would coil 20 metres, would feedpoint impedance be same
> (yes, not efficiency) as if wire would be stretched out? If not, should
> I coil more or less and by what margin? And what length for feedline?
> Minimum would be 8m. I guess I'd like to have some kind of "vertical
> G5RV". Did some modeling using 4nec2 but its like banging head against
> wall.. So, any educated guess/opinnion/suggestion will be most welcome.
> Otherwise I will cut everything random and, I'm afraid, result will be
> appropriate too..
> Sorry for lenghty post.
>
>
> Andrus
>

4588. Re: Dick BIRD's (G4ZU) death

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 14:35:50 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <tvcmg1d07ol245q85ud0crf93q1cmhmun2@4ax.com>
Source record: 71556

On Tue, 23 Aug 2005 11:20:12 +0200, "JC" <menardjc@wanadoo.fr> wrote:

>Dick died on August 16th in his house near Carcassonne (South) of France.
>Dick, well known in the HAM community, was the creator in the fifties of the
>MINIBEAM and, since, of several innovative antenna designs such as the
>BIRD'S CAGE, the BOW & ARROW (or Jungle Job) beam....
>He was living in France since 1999 using the call F6IDC until 2001.
>
>We will miss him.
>
>F8ND

Wih all due respect to Dick Bird, isn't 'South of France' in the
Mediterranean?

Walt, W2DU

4589. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 15:31:23 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndgmgab.2e17.bit-bucket@shell.config.com>
Source record: 71557

On Mon, 22 Aug 2005 22:34:59 +0000 (UTC), Reg Edwards wrote:
>
> "Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message
> news:4VrOe.378$_84.352@newsread1.news.atl.earthlink.net...
>> I am putting up my old TA-33SR by Mosley. I need to know how many
>> windings are needed on the choke. I seem to remember 6" diameter,
>> but not the amount of windings.
>> According to the manual there is no choke indicated at all.
>> Anyone know anything about this?
>>
>> Dan/W4NTI
>>
>==========
> Dan, I am unable to help you.
>
> Because, in common with most other people, I havn't the foggiest idea
> what a TA-33SR is.

Then, by the criteria set in his question:
"Anyone know anything about this?",
you are unqualified to reply to his post -- and, should not have.

Dan,

As a couple of other fellers stated, I, too, am unconvinced that the
family of 3-el tribanders (the Mosely TA-33, the Cushcraft A3S, etc.)
are very much affected by the presense, or lack of a choke balun.
I've operated my CC A3S both ways and am unable to distinguish a smidgen
of difference.

For a multi-element monobander...., well .....

Just insure you've got a "50 ohm source" and a "50 ohm transmission line"
to feed your "50 ohm load" and you should be a happy operator. At
least it will work well enough to keep you On The Air, and keep
you off of usenet and out of rraa where publicly anguishing over your
concerns usually results in abuse by the resident stalkers.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ config.com | Jonesy | OS/2
*** Now killfiling all X-Trace: posting.google.com followups

4590. Re: Dick BIRD's (G4ZU) death

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 15:35:41 UTC
From: JC <menardjc@wanadoo.fr>
Message-ID: <430b424f$0$27427$8fcfb975@news.wanadoo.fr>
Source record: 71558

Sorry my message was not clear enough: Carcassonne is a city in the southern part of France and not in the Mediterranean sea !
We use to say in French "au sud de la France" which means " in the southern part of the country" and not "south of the french territory".
F8ND

"Walter Maxwell" <walt@w2du.com> a crit dans le message de news: tvcmg1d07ol245q85ud0crf93q1cmhmun2@4ax.com...
> On Tue, 23 Aug 2005 11:20:12 +0200, "JC" <menardjc@wanadoo.fr> wrote:
>
>>Dick died on August 16th in his house near Carcassonne (South) of France.
>>Dick, well known in the HAM community, was the creator in the fifties of
>>the
>>MINIBEAM and, since, of several innovative antenna designs such as the
>>BIRD'S CAGE, the BOW & ARROW (or Jungle Job) beam....
>>He was living in France since 1999 using the call F6IDC until 2001.
>>
>>We will miss him.
>>
>>F8ND
>
> Wih all due respect to Dick Bird, isn't 'South of France' in the
> Mediterranean?
>
> Walt, W2DU
>

4591. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 15:45:08 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <13c18$430b44b9$97d55b95$4127@ALLTEL.NET>
Source record: 71559

The pattern would look like a triangle, so the answer to your question is
no.

> Reg, G4FGQ wrote:
> "There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
> transmission line.
>
> The antenna consists of three 1/4-wave horizontal radiators spaced at
> 120 degree intervals.
>
> Is the radiation pattern in the horizontal plane perfectly
> omnidirectional?"

4592. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 15:49:47 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <50c57$430b45d0$97d55b95$4633@ALLTEL.NET>
Source record: 71560

I think Roy is referring to a T configuration rather than an upside-down L. The currents will balance in the T so wire size is limited by physical considerations rather than electrical. This is just another form of a capacity hat. The net result is to raise the radiation resistance.

"dansawyeror" <dansawyeror@comcast.net> wrote in message news:430A84D1.1000005@comcast.net...
> Roy,
>
> Thanks. This might be feasible. The site would support 50 foot wire from the
> tip. At 500 watts what would the current in the horizontal leg be? In other
> words what is the minimum effective gage?
>
> What is the purpose of this leg? Is it capacitive or does it begin to look like
> something else. What are it directional characteristics? Dipoles nodes are
> perpendicular while long wire nodes are parallel.
>
> Dan
>
> Roy Lewallen wrote:
> > Frank wrote:
> >
> >> . . .
> >> I agree with comments about adding a horizontal wire to the top of the
> >> vertical; it will probably be easier than a capacity hat. I am
> >> overloaded with work at the moment, but would like to attempt a model
> >> in a week or so when I have less work.
> > >
> > >
> > > Take a look also at a tee type arrangement. That is, a horizontal wire
> > > with the tip of the vertical connected at or near its center. It might
> > > have some advantages over connecting the wire's end to the vertical. But
> > > of course it might be more involved to construct.
> > >
> > > Roy Lewallen, W7EL

4593. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 16:03:56 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e74f6$430b4924$97d55b95$6176@ALLTEL.NET>
Source record: 71561

Thank you Walt, my interest is both ferrite bead baluns and coax air core. I have searched the internet and found a lot of measurements of magnitude and phase angles for various configurations, unfortunately none of them appear to agree. I am hoping to come up with a definitive set of tables that the average guy can use.

The only things I know for sure is that no balun covers from DC to daylight, or even 1.8 to 30 Mhz.

I was thinking it might be solved with washers and steel wool. (Grin)

"Walter Maxwell" <walt@w2du.com> wrote in message
news:4q0lg1dm8ro1mu692b6c2rvg3f1ojssa0s@4ax.com...
> On Mon, 22 Aug 2005 17:19:29 -0700, John Smith
> <assemblywizard@gmail.com> wrote:
>
> >Fred:
> >
> >As my last post gave away, my chokes are constructed on math and
> >observation in practical work... (well, prayer too <grin>)
> >
> >I see roy is recommending 10x the impedance of the feedline (coax?) for
> >the choke/balun, minimum (I am guessing here a bit), he obviously knows
> >what he is speaking about, however, at 160m when you are struck with the
> >physical dimensions of the choke/balun needed--well, at those times I
have
> >accepted a 5:1 ratio of choke/balun impedance to feedline impedance...
> >
> >... but then, I am here to learn ...
> >
> >John
> >
> >
> >On Mon, 22 Aug 2005 19:08:43 -0400, Fred W4JLE wrote:
> >
> >> How can I test how well a choke balun is performing? I know how to test
a
> >> transformer balun, but am cluless as how I can compare several
different
> >> choke balun approaches.
>
> Fred, Roy's method is fine, but here's the second way I perform the
> test with baluns constructed with ferrite beads surrounding a
> transmission line. However, it does require two baluns.
>

> To begin we connect the two baluns back-to-back, i.e. connect the
> output of the first to the output of the second, and loading the
> normally unbalanced input terminals of the second balun (now the
> output) with a 50-ohm resistor.
>
> Next, feed a signal into the input of the first balun and measure the
> voltage between the outer surface of the line feeding the input of the
> first balun and the outer surface of the unbalanced input terminals at
> the output of the second balun. In the ideal balun the voltage between
> these two points would be zero.
>
> Next, disconnect the connections between the two baluns, and reconnect
> them, reversing the connections. Now repeat the voltage measurement
> between the same points as in the previous measurements.
>
> In the ideal balun the voltage now measured will also be zero.
>
> However, with a real balun, the voltage between the two points
> specified will usually be zero when the connection between the two
> baluns is such that the outer conductors and inner conductors of both
> baluns are directly connected, respectively.
>
> But the real test of the baluns comes when the outer conductor of the
> first balun is connected to the inner conductor of the second balun,
> and the outer conductor of the first balun is connected to the inner
> conductor the second balun. The lower the voltage obtained in this
> condition, the better the balun. With a perfect balun the voltage will
> again be zero, but if the effect of the balun is zero the voltgage
> measured across the specified point will equal the input voltage.
>
> The ratio of the voltage at the input of the balun to the voltage
> appearing at the points specified above is twice the ratio of the
> forward voltage to the common mode voltage that would appear on the
> outside surface of the feed line when that balun is used in practice.
>
> Walt, W2DU

4594. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 16:34:34 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <nsjmg11nco867emmk8gmg6fc43fo7uade6@4ax.com>
Source record: 71562

On Tue, 23 Aug 2005 12:03:56 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Thank you Walt, my interest is both ferrite bead baluns and coax air core. I
>have searched the internet and found a lot of measurements of magnitude and
>phase angles for various configurations, unfortunately none of them appear
>to agree. I am hoping to come up with a definitive set of tables that the
>average guy can use.
>
>The only things I know for sure is that no balun covers from DC to daylight,
>or even 1.8 to 30 Mhz.
>
>I was thinking it might be solved with washers and steel wool. (Grin)
>
Well, Fred, go ahead and try the washers, I've already proved that
steel wool doesn't work. (haw)

Walt

4595. Re: Dick BIRD's (G4ZU) death

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 16:38:15 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <43kmg19egdgftm0p1ll0ghda8n6411n0l6@4ax.com>
Source record: 71563

Your message was plenty clear, JC, I was just trying to be funny.
But I do respect Dick Bird, he made great contributions to the field
of dx antennas.

Walt

On Tue, 23 Aug 2005 17:35:41 +0200, "JC" <menardjc@wanadoo.fr> wrote:

>Sorry my message was not clear enough: Carcassonne is a city in the southern
>part of France and not in the Mediterranean sea !
>We use to say in French "au sud de la France" which means " in the southern
>part of the country" and not "south of the french territory".
>F8ND
>
>"Walter Maxwell" <walt@w2du.com> a ï¿½crit dans le message de news:
>tvcmg1d07ol245q85ud0crf93q1cmhmun2@4ax.com...
>> On Tue, 23 Aug 2005 11:20:12 +0200, "JC" <menardjc@wanadoo.fr> wrote:
>>
>>>Dick died on August 16th in his house near Carcassonne (South) of France.
>>>Dick, well known in the HAM community, was the creator in the fifties of
>>>the
>>>MINIBEAM and, since, of several innovative antenna designs such as the
>>>BIRD'S CAGE, the BOW & ARROW (or Jungle Job) beam....
>>>He was living in France since 1999 using the call F6IDC until 2001.
>>>
>>>We will miss him.
>>>
>>>F8ND
>>
>> Wih all due respect to Dick Bird, isn't 'South of France' in the
>> Mediterranean?
>>
>> Walt, W2DU
>>
>

4596. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 16:58:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <defkj6$e1j$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71564

> The only things I know for sure is that no balun covers from DC to
daylight,
> or even 1.8 to 30 Mhz.
>
==========
Fred, I'm afraid you're wrong.

Slide a sufficient number of ferrite beads over the coax line and it
will easily cover 1.8 to 30 MHz. Alternatively, wind sufficient turns
around a largish ferrite ring of the correct grade of material.

Reg.

4597. Re: Jetstream 2015F coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 17:10:48 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <04lmg1tm1aql0nqvuucthqi3ld4k37k0rl@4ax.com>
Source record: 71565

On Tue, 23 Aug 2005 09:46:37 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrotF:

>"Mike M." <notme@invalid.email.net> wrote in message
>news:3pplg1913il62fpdor3ftf5sr41q45dlmj@4ax.com...
>> Has anyone here tried the Jetstream 2015F coax cable from R&L? Is it
>> any good for a 50 ft run at 440 MHz?
>
>R&L ??????
>
>Lee.....
>
R&L Electronics <http://randl.com>
They are a ham radio dealer in Ohio.
Jetstream is their house brand.
I'm going to order some other items and I'm looking for opinions on
their coax. There isn't a review on eHam and Google hasn't turned up
anything beyond the catalog and spec sheet.

4598. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 17:34:20 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <5ommg1h7vjvrnn6gj0fumpavadef3jmhan@4ax.com>
Source record: 71566

On Tue, 23 Aug 2005 16:58:14 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> The only things I know for sure is that no balun covers from DC to
>daylight,
>> or even 1.8 to 30 Mhz.
>>
>==========
>Fred, I'm afraid you're wrong.
>
>Slide a sufficient number of ferrite beads over the coax line and it
>will easily cover 1.8 to 30 MHz. Alternatively, wind sufficient turns
>around a largish ferrite ring of the correct grade of material.
>----
>Reg.

Reg is right, Fred, the W2DU balun with 50 #73 beads was designed to cover from 1.8 - 30 MHz. The series impedance along the outer conductor of the coax at 2.0 MHz is just over 750 ohms. If the antenna operating at 2.0 MHz is a half-wave dipole, half the dipole impedance at resonance will be around 35 ohms. The ratio 750/35 = 21.4, which gives an approximate isolation of the common-mode current of 26.6 dB below the current into half the dipole, which is more than adequate. If you want still more, make the balun with more than the original 50 beadss.

If you don't have a copy of Reflections you can find the balun data from my web page at www.w2du.com. See Chapter 21, page 21-8, for the graph that plots the resistance, reactance, and impedance of the outside surface of the coax in the W2DU balun vs frequency.

Walt, W2DU

4599. what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 18:21:40 UTC
From: dvd567@webtv.net
Message-ID: <22846-430B6934-910@storefull-3277.bay.webtv.net>
Source record: 71567

i need a filter for my part 15 am radio just to be on the safe side
cause the army choppers fly around here frequently

4600. Grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 19:10:43 UTC
From: Scott <scott@telnet.com>
Message-ID: <TwKOe.301712$xm3.265189@attbi_s21>
Source record: 71568

I am setting up my new Butternut HF9V ground mounted vertical on the side of my house. Right next to the antenna I have driven a ground rod that I will attach my antenna and radials to. The question I have is will it be OK to attach a ground wire from my shack to it too, or should I drive another ground rod that is separate for my shack only? If I drive another rod it will be about 8 feet away from my antennas ground rod. I have installed my vertical on a tilt over bracket I bought from Gap so I can hide the vertical when not in use because of restrictions in my subdivision.
Another question I have, and am concerned about is that my vertical will be about 25 feet away from my
neighbors Dish Network satellite dish. Is that going to be a problem for me and will TVI cause problems? If so what can I do
about it on my end? Thanks for your help and opinions.

4601. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 19:39:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gmurnem8qde1e@corp.supernews.com>
Source record: 71569

Fred W4JLE wrote:
> I think Roy is referring to a T configuration rather than an upside-down L.
> The currents will balance in the T so wire size is limited by physical
> considerations rather than electrical. This is just another form of a
> capacity hat. The net result is to raise the radiation resistance.

In a tee type antenna, there will be considerable current at the junction of the horizontal and vertical wires. While it's unlikely that any wire strong enough to be used won't be able to handle the current from a heating standpoint, it is possible that using a wire on the small end of the range might result in noticeable loss. A quick run with a modeling program would show whether or not that might happen with a given set of dimensions.

One thing I should mention. If the horizontal portion is higher than about 0.2 wavelength, MININEC-type ground can be used for modeling either a T or L. The vertical wire is connected directly to ground, and ground loss can be inserted at the base as a resistive load. If the horizontal wire is much less than 0.2 wavelength high, the MININEC-type ground can still be used with reasonable accuracy only for the T type antenna. For an L type antenna where the horizontal wire is less than 0.2 wavelength high, a model has to use the High Accuracy ground model, with the ground system modeled as radial wires just above the ground.

Roy Lewallen, W7EL

4602. Re: Grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:01:05 UTC
From: dplatt@radagast.org
Message-ID: <11gn0412nktil96@corp.supernews.com>
Source record: 71570

>I am setting up my new Butternut HF9V ground mounted vertical on the side of
>my house. Right next to the antenna I have driven a ground rod that I will
>attach my antenna and radials to. The question I have is will it be OK to
>attach a ground wire from my shack to it too, or should I drive another
>ground rod that is separate for my shack only? If I drive another rod it
>will be about 8 feet away from my antennas ground rod.

The National Electric Code, and thus most local building codes,
require that each building structure have only one "ground system".
In order to meet this requirement, all ground rods must be "bonded"
together with direct runs of heavy-gauge wire (6-gauge in most areas,
I believe).

The common 8' copper-plated-steel ground rods which are used for
lightning protection are good for that, but by themselves they don't
make terribly good RF grounds. You get a better RF ground by using a
number of shorter rods, a few feet or yards apart, bonded together
with heavy wire.

In your case, I'd drive in two ground rods - one as close as possible
to the shack (to which you ground your rig, with a wire that's as
short as possible), and one at the antenna. Bond them together with a
heavy copper wire, buried a few inches under the soil surface. This
should help meet the NEC bonding rule, and will also give you a better
RF ground than you'd get by running a ground wire all the way out to
the antenna. If you're feeling lavish, run some additional ground
wires outwards from your close-to-the-shack ground rod, and bury
'em... that'll help improve the quality of this RF ground somewhat.

>Another question I have, and am concerned about is that my vertical will be
>about 25 feet away from my
>neighbors Dish Network satellite dish. Is that going to be a problem for me
>and will TVI cause problems?

The satellite feed itself should be unaffected by the RF, I'd think -
the HF frequencies are far too low to be picked up by the dish's LNB.
I have an HF dipole located about 50' from our DirecTV dish, and
haven't seen any sign of interference.

You might end up with problems at the TV set itself, if your RF
"breaks in" to the TV's electronics via the antenna cable, or via the
power or speaker wiring. This is more likely to happen at higher
power levels, of course... keeping your transmissions below about 20
watts seems to help prevent most such RF breakin.

At your end, you might want to consider adding an auxiliary low-pass filter to your transmitter output, just to make sure you aren't transmitting harmonic content outside the HF bands. Check around your property for any loose, corroded metal junctions (e.g. old steel gutters and downspouts, fences, etc.), and if necessary clean 'em up and bond them - corroded junctions can act as rectifiers, and turn clean HF energy into a burst of harmonics that can cause TVI. These won't affect Dish Network reception, but could affect folks who are still picking up VHF channels via over-the-air antennas.

You might want to consider stocking up on a good-sized handful of clamp-on ferrite RF chokes. If your neighbors complain about TVI or RFI or telephone interference, give 'em the chokes and tell them to snap them onto the wiring of the affected appliances, as close as possible to the chassis (make several turns of wire through the ferrite if possible).

Legally, you are _not_ responsible for RFI problems if they're due to strong-signal overload/pickup and if your transmissions are "clean" (in-band, acceptably low harmonic content). However, it's often a very politically-wise and friendly thing to do, if you help affected neighbors eliminate such unwanted RF pickup... it might save you the trouble of having to deal with complaints from your neighborhood association, or even action re CC&Rs that your antenna may violate.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

4603. source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:19:05 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <QyKdnSz_0sdWGZbeUSdV9g@ptd.net>
Source record: 71571

Hi,

I'm installing an electrolytic grounding system (1-1/2" perforated copper pipe in trenches filled with bentonite), but I've been having difficulty finding large bag quantities of Epsom salts (magnesium sulphate) to use to "dope" the soil.

If anyone can point me to a supplier in E PA or nearby, I'd appreciate it.

--
73,
Carl R. Stevenson - wk3c
Grid Square FN20fm
http://home.ptd.net/~wk3c

Life Member, ARRL
Life Member, QCWA (31424)
Member, TAPR
Member, AMSAT-NA
Member, LVARC (Lehigh Valley ARC)
Member, Lehigh County ARES/RACES
Fellow, The Radio Club of America
Senior Member, IEEE
Member, IEEE Standards Association
Chair, IEEE 802.22 WG on Wireless Regional Area Networks

4604. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:35:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e85ee$430b88ac$97d55b95$17905@ALLTEL.NET>
Source record: 71572

At some point a resonance will occur Reg. And while some particular combination may work - i.e. 7,427 ferrite beads along 841 feet of coax. I have found no practical balun that does the deed from 1.8 to 30.

Those that work well at 1.8 seem to end up with a resonance somewhere over 20 Mhz..

One solution may be ferrites to cover the low end in series with a solenoid coil for the high end.

Again, what I am looking for is a simple chart that says for a 10, 15, and 20 meter beam a solenoid of 8 turns on a 4 1/2" pvc coil form will provide the following impedances ...

Also most people will tell you that just looping the coils together will cause problems because of capacitance. I don't see that as a bad thing. Again I need to see data to confirm or discount my assumptions.

If nothing else it will be a fun learning exercise.

I ran into some problems with an all band no tuner antenna and started to try various combinations of beads recommended by the Gurus. While it worked OK on 160, 75 and 40, at 15 and10 meters the beads has insufficient impedance.

Ergo, I have mounted my steed and wooden lance in hand am off to fight the evil forces of unbalance.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:defkj6$e1j$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> > The only things I know for sure is that no balun covers from DC to
> daylight,
> > or even 1.8 to 30 Mhz.
> >
> ==========
> Fred, I'm afraid you're wrong.
>
> Slide a sufficient number of ferrite beads over the coax line and it
> will easily cover 1.8 to 30 MHz. Alternatively, wind sufficient turns
> around a largish ferrite ring of the correct grade of material.
> ----
> Reg.
>
>

4605. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:40:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <57dc3$430b89ca$97d55b95$18129@ALLTEL.NET>
Source record: 71573

Walt, not to take a thing away from your W2DU balun. I suspect you have
never characterized it at high power.

The #73 material gets really hot at higher power.

"Walter Maxwell" <walt@w2du.com> wrote in message
news:5ommg1h7vjvrnn6gj0fumpavadef3jmhan@4ax.com...
> On Tue, 23 Aug 2005 16:58:14 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >> The only things I know for sure is that no balun covers from DC to
> >daylight,
> >> or even 1.8 to 30 Mhz.
> >>
> >==============================
> >Fred, I'm afraid you're wrong.
> >
> >Slide a sufficient number of ferrite beads over the coax line and it
> >will easily cover 1.8 to 30 MHz. Alternatively, wind sufficient turns
> >around a largish ferrite ring of the correct grade of material.
> >----
> >Reg.
>
> Reg is right, Fred, the W2DU balun with 50 #73 beads was designed to
> cover from 1.8 - 30 MHz. The series impedance along the outer
> conductor of the coax at 2.0 MHz is just over 750 ohms. If the antenna
> operating at 2.0 MHz is a half-wave dipole, half the dipole impedance
> at resonance will be around 35 ohms. The ratio 750/35 = 21.4, which
> gives an approximate isolation of the common-mode current of 26.6 dB
> below the current into half the dipole, which is more than adequate.
> If you want still more, make the balun with more than the original 50
> beadss.
>
> If you don't have a copy of Reflections you can find the balun data
> from my web page at www.w2du.com. See Chapter 21, page 21-8, for the
> graph that plots the resistance, reactance, and impedance of the
> outside surface of the coax in the W2DU balun vs frequency.
>
> Walt, W2DU

4606. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:46:15 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8c63b$430b8b3d$97d55b95$18531@ALLTEL.NET>
Source record: 71574

Probably not a problem. There communications are normally FM. The only AM is on the aeronautic band around 120 Mhz and Army common 243 Mhz. :>)

How much power are you running, and on which frequency? Necessary info to help you with a filter.

"Pirate Radio" <dvd567@webtv.net> wrote in message news:22846-430B6934-910@storefull-3277.bay.webtv.net...
> i need a filter for my part 15 am radio just to be on the safe side
> cause the army choppers fly around here frequently
>

4607. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:53:00 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <11gn351p3kh1tb4@corp.supernews.com>
Source record: 71575

Carl R. Stevenson wrote:

> Hi,
>
> I'm installing an electrolytic grounding system (1-1/2" perforated
> copper pipe in trenches filled with bentonite), but I've been having
> difficulty finding large bag quantities of Epsom salts (magnesium
> sulphate) to use to "dope" the soil.
>
> If anyone can point me to a supplier in E PA or nearby, I'd appreciate it.
>
>
Check your local feed store -- when horses and cows go lame they need
larger amounts than you or I do.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4608. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 20:58:28 UTC
From: dplatt@radagast.org
Message-ID: <11gn3fkok08kq04@corp.supernews.com>
Source record: 71426

In article <e85ee$430b88ac$97d55b95$17905@ALLTEL.NET>,
Fred W4JLE <w4jle@w4jle.com> wrote:

>Again, what I am looking for is a simple chart that says for a 10, 15, and
>20 meter beam a solenoid of 8 turns on a 4 1/2" pvc coil form will provide
>the following impedances ...

http://www.bcdxc.org/balun_information.htm#Ed,%20WA2SRQ has some of
that sort of information, for a few specific combinations of turns,
diameter, and winding style.

>Also most people will tell you that just looping the coils together will
>cause problems because of capacitance. I don't see that as a bad thing.
>Again I need to see data to confirm or discount my assumptions.

What I have heard is that scramble-winding the turns tends to create a
higher distributed capacitance, and lowers the frequency at which the
balun exhibits self-resonance.

This appears to be born out by the table in the URL I gave above.
Compare the "8 turns, 6-5/8" columns for single-layer and bunched
windings. The single-layer coil has its peak impedance at 12 MHz.
The bunched-turn coil peaks somewhere between 6 and 7 MHz (highest
displayed impedance is at 6 but the phase is still very positive, so
I'm inferring a higher-impedance peak between 6 and 7 MHz).

The impedance of the bunched-turn coil seems to drop faster, on either
side of resonance, than that of the solenoid-would coil.

This suggests to me that the bunched-turn coil, measured and trimmed
carefully, might be a convenient choice for a low-HF monoband
antenna's choke, since it'd need fewer turns of coax to achieve a high
choking impedance. The solenoid-wound coil appears to have a somewhat
broader effective frequency range, and thus might be a better choice
for a 10/15/20 tribander.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4609. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 21:08:57 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <T1udnRbCRYXgDZbeUSdV9g@ptd.net>
Source record: 71427

Thanks ... I'll check around the local feed stores.

Any other suggestions from others would still be welcome.

--
73,
Carl R. Stevenson - wk3c
Grid Square FN20fm
http://home.ptd.net/~wk3c

Life Member, ARRL
Life Member, QCWA (31424)
Member, TAPR
Member, AMSAT-NA
Member, LVARC (Lehigh Valley ARC)
Member, Lehigh County ARES/RACES
Fellow, The Radio Club of America
Senior Member, IEEE
Member, IEEE Standards Association
Chair, IEEE 802.22 WG on Wireless Regional Area Networks

"Tim Wescott" <tim@seemywebsite.com> wrote in message
news:11gn351p3kh1tb4@corp.supernews.com...
> Carl R. Stevenson wrote:
>
>> Hi,
>>
>> I'm installing an electrolytic grounding system (1-1/2" perforated copper
>> pipe in trenches filled with bentonite), but I've been having difficulty
>> finding large bag quantities of Epsom salts (magnesium sulphate) to use
>> to "dope" the soil.
>>
>> If anyone can point me to a supplier in E PA or nearby, I'd appreciate
>> it.
>>
>>
> Check your local feed store -- when horses and cows go lame they need
> larger amounts than you or I do.
>
> --
>
> Tim Wescott
> Wescott Design Services

> http://www.wescottdesign.com

4610. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 21:17:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gn4ju2qt9kk9b@corp.supernews.com>
Source record: 71428

Fred W4JLE wrote:
> At some point a resonance will occur Reg. And while some particular
> combination may work - i.e. 7,427 ferrite beads along 841 feet of coax. I
> have found no practical balun that does the deed from 1.8 to 30.
>
> Those that work well at 1.8 seem to end up with a resonance somewhere over
> 20 Mhz..
>. . .

You're using the wrong kind of ferrite. Type 43, the most common type used for large cores, has a Q of 1 in the middle of the HF range. That is, the resistance equals the reactance at that frequency. So over the HF range a balun wound on a type 43 core with no air gap or by using beads W2DU-style looks basically like a resistor. You'd have to have extremely sensitive equipment to detect any resonance effects.

70 series ferrites have an even lower frequency Q=1 point, along with more impedance per turn squared, and that's what I mostly use. But a balun made with type 70 can sometimes get uncomfortably hot if you're running a kW.

Roy Lewallen, W7EL

4611. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 21:20:07 UTC
From: chuck <nospam@nospam.net>
Message-ID: <bqMOe.825$_84.28@newsread1.news.atl.earthlink.net>
Source record: 71429

Hello Carl,

Try Google for this kind of question!

Found this link offering 50 lb. bags @ $45/bag.

http://www.saltworks.us/shop/product.asp?idProduct=255
Epsom Salt

Good luck.

Chuck

Carl R. Stevenson wrote:
> Hi,
>
> I'm installing an electrolytic grounding system (1-1/2" perforated
> copper pipe in trenches filled with bentonite), but I've been having
> difficulty finding large bag quantities of Epsom salts (magnesium
> sulphate) to use to "dope" the soil.
>
> If anyone can point me to a supplier in E PA or nearby, I'd appreciate it.
>
>

4612. Re: Jetstream 2015F coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 21:43:58 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1124833438.417636.284880@g44g2000cwa.googlegroups.com>
Source record: 71430

Mike M. Aug 23, 1:10 pm show options

Newsgroups: rec.radio.amateur.antenna
From: Mike M. <n...@invalid.email.net> - Find messages by this author
Date: Tue, 23 Aug 2005 17:10:48 GMT
Local: Tues, Aug 23 2005 1:10 pm
Subject: Re: Jetstream 2015F coax
Reply | Reply to Author | Forward | Print | Individual Message | Show original | Report Abuse

On Tue, 23 Aug 2005 09:46:37 GMT, "Lee" <lo012a4...@blueyonder.co.uk> wrotF:

>"Mike M." <n...@invalid.email.net> wrote in message
>news:3pplg1913il62fpdor3ftf5sr41q45dlmj@4ax.com...
>> Has anyone here tried the Jetstream 2015F coax cable from R&L? Is it
>> any good for a 50 ft run at 440 MHz?

>R&L ??????

>Lee.....

R&L Electronics <http://randl.com>
They are a ham radio dealer in Ohio.
Jetstream is their house brand.
I'm going to order some other items and I'm looking for opinions on their coax. There isn't a review on eHam and Google hasn't turned up anything beyond the catalog and spec sheet.

Mike,
I've used R&L's jetstream 2013, the house version of 9913 Belden, without any problems. Compairs with the Belden cable and is much less expensive. Hopefully you will have the same luck I did.
73
Rob Brown
kb8wws

4613. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 21:55:56 UTC
From: richardharrison@webtv.net
Message-ID: <1850-430B9B6C-1018@storefull-3257.bay.webtv.net>
Source record: 71432

Mark Keith, NM5K wrote:
"I`ve had horizontal antennas that picked up horrible amounts of noise."

Yes, the protectection comes from noise beyond the line of sight range
but not so far away as to require aky wave propagation.

Propagation is a function of frequency. Below 100 KHz, gtound waves are
little affected by the earth`s attenuation and the sky wave is reflected
with little loss by the ionosphere. Waves travel up to 600 miles with
little perturbation from the time of day, season, or year, but at
greater distances, low frequency reception is better at night and in the
winter due to ionospheric changes affecting the reflected signal.. On a
yearly basis, signal strength over long distances correspond with the
11-year sunspot cycle. Low frequency signal strength changes only slowly
without rapid fades which characterize high frequency operation.

At frequencies above 100 KHz but below 535 KHz, ground wave attenuation
is greater than at frequencies below 100 KHz. Daytime ionospheric losses
are very high. Daytime ground wave propagation is better at the lower
end of this frequency range and over soil of higher conductivity.
Signals may extend to several hundred miles, where noise levels in the
receiving location are low. Nighttime transmission to distant points is
possible due to ionospheric reflection. Dependable daytime reception in
the 100 to 535 KHz range is bad due to lack of ionospheric propagation
and high attenuation of the ground wave especially at the higher
frequency end of this band over poorly conductive earth and during the
summer months when there may be thunder storms producing static eithin
ground wave range..

At frequencies between 535 KHz and 1600 KHz, only the ground wave is
useful in the daytime beyond the line of sight, as the sky wave is
completely absorbed. The higher the frequency in this range, and the
poorer the earrth`s conductivity,, the greater the attenuation of the
ground wave. High powered transmitters at the lower frequencies in this
range reach 50 to 100 miles over high conductivity soil. This may be
pessimistic. I listen 24 hours to 50 KW KKYX in San Antonio which is 200
miles to my west satisfactorily. It broadcasts on 680 KHz. My receivers
are quite ordinary and use internal loop antennas. The earth is highly
conductive but there is no sea water in the path. At night, other
stations
produce low frequency carrier beats with KKYX causing undesirable
automatic volume control action. but KKYX`s sky wave is stronger than
its groundwave and its reception is still acceptable.. Radio Havana is
one of its competitors. I hear all about "El Comandante" at times.

Sky wave goes far in the 535 to 1600 KHz band. During Hurricane Carla in the 1960`s I listened to Dan Rather describe the storm blow by blow on KTRH, Houston`s 50 KW outlet, from Tierra del Fuego where I was working, and listening on a Hitachi pocket transistor portable radio with its built in loop antenna. The path is about 6000 miles long but mostly over the ocean. KTRH transmits on 740 KHz from the banks of Cedar Bayou. They have a 4-tower directionnal array with a North-South bias. Reception was good in Tierra fel Fuego as it is nearly at the Antarctic Circle and there are no thunder storms there. It is too cold. Groundwave extends hundreds of miles from KTRH, but not 6000 miles. My reception was shy wave using several hops.. Broadcast transmitters concentrate energy along the horizon so low elevation angles are favored.. This works well for sky wave DX, especially over the ocean.

Sky wave attenuation in the 535 to 1600 KHz band is about the same throughout the band, so nighttime coverage of broadcast stations in this range is almost independent of frequency, while daytime ground waves favor the lower frequencies. When I was a kid, I had a crystal set fixed tuned to KTRH which directly drove a loudspeaker, if I could find a sensitive spot on the galena. I lived almost in sight of the station.

At frequencies between 1600 KHz and 30 MHz, the ground wave attenuates so rapidly as to be usseless except over very short distances. Propagation is either line of sight or via ionospheric reflection or via tropospheric scattering. Frequencies above 30 MHz are often used for scattering ao that extremely high gain antennas are practical. Scatterihg often uses brute force to extend the range of signals beyond the line of sight.

Most long-distance short-wave communications result from ionnospheric reflection. In the frequency range of 1600 KHz to 30 MH, a band of frequencies can almost always be found that provides communications by sky wave over a path between two points on earth.

The maximum usable frequency depends on the distance between the points and ionospheric conditions. The minimum usable frequency depends on ionospheric conditions, effective radiated power, and the noise level at the receiver. Losses in the ionosphere increase with wavelength, so the frequency which gives the best signal is usually the maximum usable frequency. For communocations reliability, the maximum usable frequency is often discounted by 15% to provide an "Optimum Working Frequency".

Daytime DX requires a high frequency. Shorter paths require lower frequencies.

Typically 10 to 29 MHz during the day and 5 to 10 MHz, at night, are best for transmission over transoceanic distances (thousands of miles). Rember the Zenith portable? The best frequencies are usually higher during the day for long paths than they are at night

Optimum frequency increases with the length of the path up to the maximum distance for one-hop transmission, about 1200 to 2400 miles. Low elevation-angle radiation such as 5 to 15 degrees is usually most

desirable. Radiation below an angle of about 3.5 degrees may be absorbed by the earth near the transmitting antenna and wasted.

Frequencies above 30 MHz are usually not reflected by the ionosphere and provide only sporadic sky wave communications.

Best regards, Richard Harrison, KB5WZI

4614. Very happy with my 80 meter loop on higher bands

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 22:01:33 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1124831695.022814.213260@g14g2000cwa.googlegroups.com>
Source record: 71431

I've got an 80 meter horizontal loop up around 50 feet in my backyard, fed with ladder line. It seems to work really well on 20 and 18 meters, no doubt has some decent gain over a dipole in some lobes. I push about 500 watts into it and work all kinds of DX with very good reports, even breaking pileups on 20 meters.

Would a 3 element yagi open up a new experience of antenna performance for me, in terms of forward gain? Sure seems convenient to have an antenna that doesn't require a tower and a rotator.

Thanks,

Chuck

4615. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 22:17:03 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <klCdneTNJ_LuPZbeUSdV9g@ptd.net>
Source record: 71433

Thanks Chuck ... must be a new listing ... last time I "googled" I didn't find it.

--
73,
Carl R. Stevenson - wk3c
Grid Square FN20fm
http://home.ptd.net/~wk3c

Life Member, ARRL
Life Member, QCWA (31424)
Member, TAPR
Member, AMSAT-NA
Member, LVARC (Lehigh Valley ARC)
Member, Lehigh County ARES/RACES
Fellow, The Radio Club of America
Senior Member, IEEE
Member, IEEE Standards Association
Chair, IEEE 802.22 WG on Wireless Regional Area Networks

"chuck" <nospam@nospam.net> wrote in message
news:bqMOe.825$_84.28@newsread1.news.atl.earthlink.net...
> Hello Carl,
>
> Try Google for this kind of question!
>
> Found this link offering 50 lb. bags @ $45/bag.
>
>
> http://www.saltworks.us/shop/product.asp?idProduct=255
> Epsom Salt
>
>
> Good luck.
>
> Chuck
>
>
>
>
>
>
>

>
>
>
> Carl R. Stevenson wrote:
>> Hi,
>>
>> I'm installing an electrolytic grounding system (1-1/2" perforated copper
>> pipe in trenches filled with bentonite), but I've been having difficulty
>> finding large bag quantities of Epsom salts (magnesium sulphate) to use
>> to "dope" the soil.
>>
>> If anyone can point me to a supplier in E PA or nearby, I'd appreciate
>> it.
>>

4616. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 22:52:28 UTC
From: Reloader <Reloader.1u90ot@news.radiobanter.com>
Message-ID: <Reloader.1u90ot@news.radiobanter.com>
Source record: 71441

Also cheeck you local garden supply for copper sulfate. It works even better doWn here in Texas. Also known aS BLUESTONE.

--
Reloader

4617. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-23 23:17:23 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <430bae83$0$32206$39cecf19@news.twtelecom.net>
Source record: 71434

Walter Maxwell wrote:

<snip>
> Walt, W2DU

Thank you for that, Walter. This one gets printed and goes in the binder.

tom
K0TAR

4618. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 00:32:07 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <degf67$6qu$1@news.netins.net>
Source record: 71435

Now that is interesting, Roy. I was going to put up a 160 m inverted L this summer. I am limited to only being able to go up about 45 feet, so I would need about another 90 feet horizontal.

Are you suggesting that it might be a better arrangement to go up the 45' and then put up the top "T"? If so, roughly how long should the top part of the T be (each side of center) to get me to 160? I'm guessing it may not be accomplished without some base loading...and that is what took me to the Inverted L in the first place...direct coax feed, albeit not a particularly good low angle radiator.

I am prepared to put down a radial field...but I want to stick with a simple vertical wire, either extended horizontally as an Inverted L or as you suggest, a T, if it can be done. I have about 100' either side of center available to construct the top part of the T. In either case, the top loading wires will need to be somewhat of the inverted v construction, as I don't have 45' high supports for each end.

Thanks for any thoughts you might have. I need to get something done before winter!

73,

...hasan, N0AN

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11gl9d35r5mhc97@corp.supernews.com...
> To determine the horizontal wire current, download the free EZNEC demo
> from http://eznec.com. That's exactly the kind of thing it's good for.
>
> If you put a single horizontal wire out to make an L shape, the wire
> radiates a considerable amount. Being as low as it is, a lot of the power
> will be dissipated in the ground, and only a small fraction will be
> radiated at a low elevation angle. But if you connect to the center of a
> horizontal wire to make a T shape, the fields from the two halves of the
> horizontal wire will nearly cancel, so it'll radiate very little. Its main
> effect, like a capacitive top hat, will be to even out the current in your
> vertical wire, which will raise the radiation resistance and therefore the
> efficiency.
>
> EZNEC or a similar program will quickly show you the differences in field
> strength in various directions for the antenna as it is, and with either
> of the top loading configurations.
>
> Roy Lewallen, W7EL
>

> dansawyeror wrote:
>> Roy,
>>
>> Thanks. This might be feasible. The site would support 50 foot wire from
>> the tip. At 500 watts what would the current in the horizontal leg be? In
>> other words what is the minimum effective gage?
>>
>> What is the purpose of this leg? Is it capacitive or does it begin to
>> look like something else. What are it directional characteristics?
>> Dipoles nodes are perpendicular while long wire nodes are parallel.
>>
>> Dan
>>
>> Roy Lewallen wrote:
>>
>>> Frank wrote:
>>>
>>>> . . .
>>>> I agree with comments about adding a horizontal wire to the top of the
>>>> vertical; it will probably be easier than a capacity hat. I am
>>>> overloaded with work at the moment, but would like to attempt a model
>>>> in a week or so when I have less work.
>>>
>>>
>>>
>>> Take a look also at a tee type arrangement. That is, a horizontal wire
>>> with the tip of the vertical connected at or near its center. It might
>>> have some advantages over connecting the wire's end to the vertical. But
>>> of course it might be more involved to construct.
>>>
>>> Roy Lewallen, W7EL

4619. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 00:42:36 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <0oPOe.922$_84.233@newsread1.news.atl.earthlink.net>
Source record: 71436

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dedjuj$5aa$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message
> news:4VrOe.378$_84.352@newsread1.news.atl.earthlink.net...
>> I am putting up my old TA-33SR by Mosley. I need to know how many
> windings
>> are needed on the choke. I seem to remember 6" diameter, but not
> the
>> amount of windings.
>>
>> According to the manual there is no choke indicated at all.
>>
>> Anyone know anything about this?
>>
>> Dan/W4NTI
>>
> ==================================
> Dan, I am unable to help you.
>
> Because, in common with most other people, I havn't the foggiest idea
> what a TA-33SR is.
>
> Questioners would do better by not depending on other people's
> imagination. It takes only a few seconds to provide a little more
> essential information. If you can't find the time then it can't matter
> very much anyway.
> ----
> Reg.
>
>

Then perhaps it would be better if you didn't respond at all, eh?

Dan/W4NTI

4620. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 00:48:42 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <KtPOe.925$_84.143@newsread1.news.atl.earthlink.net>
Source record: 71437

That sounds like what my CRS gray matter was trying to remember....thanks.

Dan/W4NTI

"BillJ" <w3fi@nwboronet.com> wrote in message
news:wPuOe.116$Bv2.1079@eagle.america.net...
> Dan/W4NTI wrote:
>> I am putting up my old TA-33SR by Mosley. I need to know how many
>> windings are needed on the choke. I seem to remember 6" diameter, but
>> not the amount of windings.
>>
>> According to the manual there is no choke indicated at all.
>>
>> Anyone know anything about this?
>>
>> Dan/W4NTI
>>
>>
> My TA-33 manual calls for 5 turns at 6 inch diameter
> Bill, W3FI

4621. Re: Very happy with my 80 meter loop on higher bands

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 00:51:06 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <wuPOe.33852$XM3.29687@bignews5.bellsouth.net>
Source record: 71438

I've talked to a guy who put up a sky loop like yours, then also installed another loop, about 5% longer, 40 ft below the first. (He ended up with a 80-meter quad pointed straight up). He talked to europe on 80 quite regularly - and said it worked well on the other bands too, with a tuner.

"Chuck W." <cwyatt@w3minds.com> wrote in message news:1124831695.022814.213260@g14g2000cwa.googlegroups.com...
> I've got an 80 meter horizontal loop up around 50 feet in my backyard,
> fed with ladder line. It seems to work really well on 20 and 18
> meters, no doubt has some decent gain over a dipole in some lobes. I
> push about 500 watts into it and work all kinds of DX with very good
> reports, even breaking pileups on 20 meters.
>
> Would a 3 element yagi open up a new experience of antenna performance
> for me, in terms of forward gain? Sure seems convenient to have an
> antenna that doesn't require a tower and a rotator.
>
> Thanks,
>
> Chuck
>

4622. Re: Info needed TA-33SR Choke coil

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 00:55:49 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <pAPOe.932$_84.188@newsread1.news.atl.earthlink.net>
Source record: 71439

Thanks to all who bothered to reply, except Reg of course. Hardy Har Har.

I appreciate the comments about not bothering. Wellll.....I think I'll use one because I want to keep feedline radiation at a minimum. You know computers, and phone patching.

Dan/W4NTI

"Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message news:4VrOe.378$_84.352@newsread1.news.atl.earthlink.net...
>I am putting up my old TA-33SR by Mosley. I need to know how many windings
>are needed on the choke. I seem to remember 6" diameter, but not the
>amount of windings.
>
> According to the manual there is no choke indicated at all.
>
> Anyone know anything about this?
>
> Dan/W4NTI
>
>

4623. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 02:50:15 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <430BE09F.67F5CD1D@shaw.ca>
Source record: 71440

"Carl R. Stevenson" wrote:
>
> Hi,
>
> I'm installing an electrolytic grounding system (1-1/2" perforated copper
> pipe in trenches filled with bentonite), but I've been having difficulty
> finding large bag quantities of Epsom salts (magnesium sulphate) to use to
> "dope" the soil.
>
> If anyone can point me to a supplier in E PA or nearby, I'd appreciate it.
>
> --

Just buy the salt for water-softerners. It's readily available and
probably cheaper.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4624. Re: source for large bags of Epsom salts for electrolytic grounding system (E PA area or nearby)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 03:34:06 UTC
From: Ray Gaschk <rgaschk@astound.net>
Message-ID: <degpjc$r89$1@news.astound.net>
Source record: 71443

Carl,

Please don't use copper sulphate, it is illegal in most locals, gets into ground water and is poisonous . Another salt you might consider is sodium carbonate, "washing soda" it is pretty inexpensive but not as cheap as sodium chloride in the form of water softener salt.

ray, w6fya
"Carl R. Stevenson" <wk3cqth@wk3c.com> wrote in message
news:T1udnRbCRYXgDZbeUSdV9g@ptd.net...
> Thanks ... I'll check around the local feed stores.
>
> Any other suggestions from others would still be welcome.
>
> --
> 73,
> Carl R. Stevenson - wk3c
> Grid Square FN20fm
> http://home.ptd.net/~wk3c
> --
> Life Member, ARRL
> Life Member, QCWA (31424)
> Member, TAPR
> Member, AMSAT-NA
> Member, LVARC (Lehigh Valley ARC)
> Member, Lehigh County ARES/RACES
> Fellow, The Radio Club of America
> Senior Member, IEEE
> Member, IEEE Standards Association
> Chair, IEEE 802.22 WG on Wireless Regional Area Networks
> --
>
> "Tim Wescott" <tim@seemywebsite.com> wrote in message
> news:11gn351p3kh1tb4@corp.supernews.com...
>> Carl R. Stevenson wrote:
>>
>>> Hi,
>>>
>>> I'm installing an electrolytic grounding system (1-1/2" perforated
>>> copper pipe in trenches filled with bentonite), but I've been having
>>> difficulty finding large bag quantities of Epsom salts (magnesium
>>> sulphate) to use to "dope" the soil.
>>>

>>> If anyone can point me to a supplier in E PA or nearby, I'd appreciate
>>> it.
>>>
>>>
>> Check your local feed store -- when horses and cows go lame they need
>> larger amounts than you or I do.
>>
>> --
>>
>> Tim Wescott
>> Wescott Design Services
>> http://www.wescottdesign.com
>

4625. Material for Flexible Whip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 03:45:54 UTC
From: David <david@orbitcoms.com>
Message-ID: <S3SOe.8590$FA3.4667@news-server.bigpond.net.au>
Source record: 71442
Cross-posted to: alt.ham-radio,aus.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I am looking for the Black (Nylon,Polythene ???) tubing around 6mm OD
and wall thickness of 1mm for construction of 900 MHz whip antenna.
It needs to be fairly rigid as it is glued to an SMA plug.

If anyone can advise what material is typically used and where I could
purchase
a reel of it (maybe it is even pressure tubing for pnuematics ?), it would
be much
appreciated. Australian source would be preferrable.

Thank in advance

Regards

David

4626. Re: Material for Flexible Whip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 05:22:50 UTC
From: Mal <spam@bigpond.net.au>
Message-ID: <KuTOe.8690$FA3.7066@news-server.bigpond.net.au>
Source record: 71444
Cross-posted to: alt.ham-radio,aus.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

http://www.mobileone.com.au/antenna/default.htm
"David" <david@orbitcoms.com> wrote in message
news:S3SOe.8590$FA3.4667@news-server.bigpond.net.au...
>I am looking for the Black (Nylon,Polythene ???) tubing around 6mm OD
> and wall thickness of 1mm for construction of 900 MHz whip antenna.
> It needs to be fairly rigid as it is glued to an SMA plug.
>
> If anyone can advise what material is typically used and where I could
> purchase
> a reel of it (maybe it is even pressure tubing for pnuematics ?), it would
> be much
> appreciated. Australian source would be preferrable.
>
> Thank in advance
>
> Regards
>
> David
>

4627. Re: Very happy with my 80 meter loop on higher bands

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 05:39:25 UTC
From: AE6FL-AAM9ECS <ae6fl@arrl.net>
Message-ID: <e8a93$430c0812$4311d10b$9049@TCSN.NET>
Source record: 71445

"Chuck W." <cwyatt@w3minds.com> wrote in message
news:1124831695.022814.213260@g14g2000cwa.googlegroups.com...
> I've got an 80 meter horizontal loop up around 50 feet in my backyard,
> fed with ladder line. It seems to work really well on 20 and 18
> meters, no doubt has some decent gain over a dipole in some lobes. I
> push about 500 watts into it and work all kinds of DX with very good
> reports, even breaking pileups on 20 meters.
>
> Would a 3 element yagi open up a new experience of antenna performance
> for me, in terms of forward gain? Sure seems convenient to have an
> antenna that doesn't require a tower and a rotator.
>
> Thanks,
>
> Chuck

Hi Chuck,

I have roughly 300 feet of 14 gauge insulated wire in a square horizontal loop at 28 feet above the yard here and use 4 foot sections of fiberglass camo netting supports at each corner guyed with para-cord . Work mainly MARS stations in the CONUS on 3 to 8 MHz frequencies using 100 watt Icom transceiver and AH-4 auto-tuner with ladder line feed. This antenna works very well in this application and I'm consistently reported as 'loudest station on the net', etc.

I've had lots of great DX contacts too. When you look at AZ-EL plots it has very sharp lobes at certain frequencies. Probably much better for DX at 50 feet. Delta loop is more omnidirectional and doesn't have as many sharp lobes.

Adding a tower, rotor and yagi would definitely open up much more DX. Have a 55 foot crank-up tower, rotor and 12 element log periodic project planned for this fall. For me, it's worth the effort. Should be much easier to contact friends that are currently in the Middle East.

73,
Mike ae6fl, AAM9ECS

4628. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 06:50:03 UTC
From: dvd567@webtv.net
Message-ID: <22846-430C189B-992@storefull-3277.bay.webtv.net>
Source record: 71446

the freq will be 1700. not much power not over 5 watts also i am in the country only a few people live around me so i can crank up the power lol thanks for the info

4629. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 08:50:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dehccq$614$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71447

For the performance/behaviour of a solenoid-wound coaxial choke,
download program SELFRES from website below.

Enter dimensions of the coil and the resonant frequency and impedance
versus frequency in a test circuit is calculated.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4630. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 10:10:17 UTC
From: andy <drbrain@hot.ee>
Message-ID: <1124878217.295628.241830@g43g2000cwa.googlegroups.com>
Source record: 71448

chuck kirjutas:

> Have you established that the pieces of the metal roof are electrically
> bonded?

well... I'm pretty sure it's electrically bonden. Pieces are shiny and
look like new. They overlap some. So, there's probably almost zero
resistance between them. Someday, wind blows away pulverized rust that
once was a roof but for now it'll make a great ground plane.

4631. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 10:25:45 UTC
From: andy <drbrain@hot.ee>
Message-ID: <1124879145.165208.200300@o13g2000cwo.googlegroups.com>
Source record: 71449

Cecil Moore kirjutas:
> andy wrote:
> > To get 80, i feel that i need to coil the wire around the fishing
> > pole.
>
> You can do that to get 80m, but you will degrade the performance
> on the other bands.

If I would get some low angle radiation on 80 then would'nt mind some performance degradation. But NEC shows that best gain would be at 90 degrees...
Probably could get 80 another way. Ok, but I still need to find "magical" antenna wire + feedline length combination. For that, probably 10 to 20 metres around that fishing pole. Could I model the vertical section as a straight (20m for example) and get same results as if the wire was coiled. Dont want to model helixes!

Andrus

4632. Re: Material for Flexible Whip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 10:42:51 UTC
From: David <david@orbitcoms.com>
Message-ID: <LaYOe.8939$FA3.3480@news-server.bigpond.net.au>
Source record: 71450
Cross-posted to: alt.ham-radio,aus.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Mal,

I cannot see on the web page where they mention the material used for the
Whip Radome ?
They also don't seem to sell any tubing.

Can you advise me which page they advertise the tubing ?

Thanks

"Mal" <spam@bigpond.net.au> wrote in message
news:KuTOe.8690$FA3.7066@news-server.bigpond.net.au...
> http://www.mobileone.com.au/antenna/default.htm
> "David" <david@orbitcoms.com> wrote in message
> news:S3SOe.8590$FA3.4667@news-server.bigpond.net.au...
>>I am looking for the Black (Nylon,Polythene ???) tubing around 6mm OD
>> and wall thickness of 1mm for construction of 900 MHz whip antenna.
>> It needs to be fairly rigid as it is glued to an SMA plug.
>>
>> If anyone can advise what material is typically used and where I could
>> purchase
>> a reel of it (maybe it is even pressure tubing for pnuematics ?), it
>> would be much
>> appreciated. Australian source would be preferrable.
>>
>> Thank in advance
>>
>> Regards
>>
>> David
>>
>
>

4633. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 11:29:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dehln5mt1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71451

The performance of a coaxial choke inserted at the antenna end of the feedline cannot be properly studied without knowledge of the feedline's length in wavelengths and how the feedline is terminated at the transmitter end. No two systems are the same.

Choke performance depends on the condition of the system before the choke is inserted. The choking effect depends on the impedance seen by the choke looking into the outer conductor of the coaxial feedline.

The input impedance of the coaxial outer conductor depends on Zo, 400 to 550 ohms, of the single-wire line, its length in wavelengths, and on the very uncertain resistance of the ground connection at the transmitter end.

If the ground connection at the transmitter end is very low and the line is an odd number of 1/4-wavelengths there will be a very high impedance at the antenna end and longitudinal current will negligible. Insertion of the choke will have no effect.

If the line is a whole number of 1/2-wavelengths, with a low resistance ground the input impedance of the coaxial outer conductor will also be very low and longitudinal current in the line will be at a maximum. Insertion of the choke will be very effective.

With the usual random line length and on different bands, choke performance will always be completely random and unpredictable. Which explains the different opinions and arguments about whether a choke is necessary or not.

Program SELFRES3 models choke behaviour.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4634. Re: Material for Flexible Whip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 12:17:14 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <deiemklmc1@ctb-nnrp2.saix.net>
Source record: 71462
Cross-posted to: alt.ham-radio,aus.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"David" <david@orbitcoms.com> wrote in message
news:S3SOe.8590$FA3.4667@news-server.bigpond.net.au...
>I am looking for the Black (Nylon,Polythene ???) tubing around 6mm OD
> and wall thickness of 1mm for construction of 900 MHz whip antenna.
> It needs to be fairly rigid as it is glued to an SMA plug.
>
> If anyone can advise what material is typically used and where I could
> purchase
> a reel of it (maybe it is even pressure tubing for pnuematics ?), it would
> be much
> appreciated. Australian source would be preferrable.
>
> Thank in advance
>
> Regards
>
> David

Try a gardening shop. Drip/micro spray irrigation uses pvc tubing that might
fit your requirement.
Don't forget to do a microwave oven test on the material because some black
plastics are carbon filled.

73
Roger ZR3RC

4635. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 12:36:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124887171_251@spool6-east.superfeed.net>
Source record: 71452

andy wrote:
> Probably could get 80 another way. Ok, but I still need to find
> "magical" antenna wire + feedline length combination. For that,
> probably 10 to 20 metres around that fishing pole. Could I model the
> vertical section as a straight (20m for example) and get same results
> as if the wire was coiled.

No. You might try modeling it with a number of lumped inductive
loads distributed over the length of the antenna.

> Dont want to model helixes!

Helixes make poor multi-band antennas because of self-resonance
effects. And remember, when a vertical is made longer than 5/8WL,
the take-off-angle increases possibly causing a lot of your radiated
energy to be lost in space.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4636. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 12:39:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <vhqog19njt69qvebfp3fts92ttsplfecd9@4ax.com>
Source record: 71453

On Tue, 23 Aug 2005 18:17:23 -0500, Tom Ring <news0002@taring.org>
wrote:

>Walter Maxwell wrote:
>
><snip>
>> Walt, W2DU
>
>Thank you for that, Walter. This one gets printed and goes in the binder.
>
>tom
>K0TAR

I'm pleased that you find my data useful, Tom,

Walt

4637. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 12:48:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124887862_257@spool6-east.superfeed.net>
Source record: 71454

Reg Edwards wrote:
> If the line is a whole number of 1/2-wavelengths, with a low
> resistance ground the input impedance of the coaxial outer conductor
> will also be very low and longitudinal current in the line will be at
> a maximum. Insertion of the choke will be very effective.

To complicate things a little more, the common-mode current may
consist of standing waves. If the choke is installed at a current
minimum point, it may have little effect.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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4638. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 13:55:33 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <mquog1pjgil9laohaiaaunqmeqj8gv69v9@4ax.com>
Source record: 71455

On Wed, 24 Aug 2005 01:50:03 -0500, dvd567@webtv.net (Pirate Radio)
wrote:

>the freq will be 1700. not much power not over 5 watts also i am in the
>country only a few people live around me so i can crank up the power lol
>thanks for the info

Lemme see.... At 1700 KHz I would say that the optimum filter would
be a piece of copper strap about 1/4" wide and 1/2" long placed right
across the output of the transmitter.

Stop back sometime and let us know how this works out.

4639. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 15:49:01 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <mE0Pe.49976$rp.12889@bignews1.bellsouth.net>
Source record: 71456

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11gk6v0r4tulk90@corp.supernews.com...
> Frank wrote:
>> . . .
>> I agree with comments about adding a horizontal wire to the top of the
>> vertical; it will probably be easier than a capacity hat. I am
>> overloaded with work at the moment, but would like to attempt a model in
>> a week or so when I have less work.
>
> Take a look also at a tee type arrangement. That is, a horizontal wire
> with the tip of the vertical connected at or near its center. It might
> have some advantages over connecting the wire's end to the vertical. But
> of course it might be more involved to construct.
>
> Roy Lewallen, W7EL

Roy,
I built basically a loaded mobile antenna that went onto an airport
building in Raleigh, NC (about 60 feet) I was reluctant to build it because
I was afraid the people that I made it for (CAP) might not know how to do
the elevated radials. I was afraid they might come back on me. I reckon I am
one of those "trial and error" hams that has tried about everything in the
last 40 years and I am still learning. Anyhoo, BOY was I WRONG! They put
the thing on the air and it really puts out a good signal! None of us have
done any measurements or NEC modeling, etc. Frankly, I was surprised as I
had done very few vertical installations (well, I've got an AV8 vertical
all-bander). All I know is, at the 60-70 foot level with tuned radials, it
really sings!

73

Jerry
K4KWH

4640. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 16:01:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dei5k2$f2v$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71457

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1124887862_257@spool6-east.superfeed.net...
> Reg Edwards wrote:
> > If the line is a whole number of 1/2-wavelengths, with a low
> > resistance ground the input impedance of the coaxial outer
conductor
> > will also be very low and longitudinal current in the line will be
at
> > a maximum. Insertion of the choke will be very effective.
>
> To complicate things a little more, the common-mode current may
> consist of standing waves. If the choke is installed at a current
> minimum point, it may have little effect.
> --
> 73, Cecil http://www.qsl.net/w5dxp
==========

Dear Cec, It doesn't complicate things. It merely repeats what I have already said. When the line is an odd number of 1/4-waves long and there is an (albeit indeterminate) ground at the transmitter end, then there will be a high impedance at the choke (DUE TO STANDING WAVES) and the choke will then be wasting its time.

If you havn't, moons ago, already downloaded the program then do so and read the program notes. There are so many unknowns in it the results are only approximate but nevertheless sufficiently accurate for the intended purpose - which is just to demonstrate choke behaviour.

The only accurate result is the calculated-from-first-principles self-capacitance of the coil on which the impedance/frequency response depends.

I had checked calculations, years back, by winding many coils of various sizes and shapes, (one 7 feet long), with various numbers of turns and measuring the coils' self-resonant frequency over the HF band using hand-held instruments with coils suspended in free space from strings. I always knew the results would be useful at some time or other, never even dreaming about choke baluns.

Did I ever tell you that for several years I was Head of a Measurements Standards Laboratory which I personally set up from scratch and which was in the 2nd echelon from the British National Physical Laboratory. The NPL.

There were certain electrical parameters for which the laboratory was capable of making measurements more accurate than the NPL but for obvious political reasons it was not possible for the laboratory to claim such performance on calibration certificates.

Some time after I had left the position on promotion, the wicked Mrs Thatcher had the laboratory dismantled and sold it off in bits because it did not produce any immediate, short-term profits. She was a chemist who went into politics. Often I still wonder what happened to the oven-enclosed battery of 12 standard Western cells.

One day, if I can force myself to find the time, I may write my memoirs. I could tell you some amusing stories.

Yours, Reg, G4FGQ

4641. Re: Dick BIRD's (G4ZU) death

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 16:55:48 UTC
From: nospam@free_.fr
Message-ID: <430ca524.3934078@news.free.fr>
Source record: 71458

Le Tue, 23 Aug 2005 12:38:15 -0400, Walter Maxwell <walt@w2du.com> a
�crit :

[...]
>>> Wih all due respect to Dick Bird, isn't 'South of France' in the
>>> Mediterranean?

[...]
(F8ND)
[...]

>Your message was plenty clear, JC, I was just trying to be funny.

I suspect Walt to be well aware of mediterranean part of France and of
the reputation of mediterranean guys, including about antenna
performances they claim. ;-)

I must suppose that gain antennas is eventually varying with latitude,
but I don't know why, even after past 30 years of ham radio and
reading of W2DU, W7EL, W8JI, DJ2LR, VE2CV, G6XN publications.

Or I missed something : perhaps the answer is in EH principles,
Magnetic Balun, MaxCom Matcher, Isotron or Bazooka antennas, steel
wool baluns and so on ... In this case, sure I need some 40 years more
of hard job around aerials.

>But I do respect Dick Bird, he made great contributions to the field
>of dx antennas.

I do also respect Dick Bird. He made great contributions to the field
of dx antennas for numerous french newcomers issued from CB world
during the nineties and dreaming of the ultimate new big gun antenna
with minimum obstruction, work and expense.

in France, some of the last contributions of Dick were :
- Les antennes "supergain" (05-06/1990)
- L'antenne "ShoeBox" (02/1993)
- Beam "Trigonal" � Grand Gain (04/1993)
(in MEGAHERTZ Magazine.)

I apologize for my english expression.

Francis, F6AWN

4642. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 17:23:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1124904368_455@spool6-east.superfeed.net>
Source record: 71459

Reg Edwards wrote:
> When the line is an odd number of 1/4-waves long and
> there is an (albeit indeterminate) ground at the transmitter end, then
> there will be a high impedance at the choke (DUE TO STANDING WAVES)
> and the choke will then be wasting its time.

And what I am saying is that exactly the same thing can happen NO
MATTER WHAT THE LENGTH OF THE FEEDLINE if the choke is located at
a current minimum point. I'm not arguing with you - just expanding
upon what you said.
--
73, Cecil http://www.qsl.net/w5dxp

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4643. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 17:49:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a5dc6$430cb357$97d55b95$30527@ALLTEL.NET>
Source record: 71460

Speaking of useful data, what is the status of reflections III Sir?

"Walter Maxwell" <walt@w2du.com> wrote in message
news:vhqog19njt69qvebfp3fts92ttsplfecd9@4ax.com...
> On Tue, 23 Aug 2005 18:17:23 -0500, Tom Ring <news0002@taring.org>
> I'm pleased that you find my data useful, Tom,
>
> Walt

4644. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 17:53:23 UTC
From: dplatt@radagast.org
Message-ID: <11gpd0jl33sbi14@corp.supernews.com>
Source record: 71461

On Wed, 24 Aug 2005 01:50:03 -0500, dvd567@webtv.net (Pirate Radio)
wrote:
>
>the freq will be 1700. not much power not over 5 watts also i am in the
>country only a few people live around me so i can crank up the power lol
>thanks for the info

Scarcely seems like a "Part 15" AM station under those conditions?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4645. Hooking up a Powered Antenna to a Boom Box...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 19:22:27 UTC
From: dantan98@sbcglobal.net
Message-ID: <1124911347.230621.107350@f14g2000cwb.googlegroups.com>
Source record: 71463

Could someone please point me in the right direction?

I just purchased a Terk Q powered FM antenna to get better FM reception in my office. However, there is no means of hooking up the device to my antenna directly. The antenna has a hookup that looks like a coaxial connection, but without threading (cylinder with a post). Does anyone know of a way or can anyone come up with a way to hook the antenna to my "boom box", which has the standard telescoping antenna?

I appreciate any and all help you can provide.

Thank you.

--Dan

4646. Re: Hooking up a Powered Antenna to a Boom Box...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 19:43:45 UTC
From: Dave <noone@nowhere.com>
Message-ID: <vlidneoqecdqUJHeRVn-uA@crocker.com>
Source record: 71464

a clip lead is probably the easiest

<dantan98@sbcglobal.net> wrote in message
news:1124911347.230621.107350@f14g2000cwb.googlegroups.com...
> Could someone please point me in the right direction?
>
> I just purchased a Terk Q powered FM antenna to get better FM reception
> in my office. However, there is no means of hooking up the device to
> my antenna directly. The antenna has a hookup that looks like a
> coaxial connection, but without threading (cylinder with a post). Does
> anyone know of a way or can anyone come up with a way to hook the
> antenna to my "boom box", which has the standard telescoping antenna?
>
> I appreciate any and all help you can provide.
>
> Thank you.
>
> --Dan
>

4647. Re: Hooking up a Powered Antenna to a Boom Box...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 19:57:59 UTC
From: dantan98@sbcglobal.net
Message-ID: <1124913479.665054.163220@o13g2000cwo.googlegroups.com>
Source record: 71465

Should I have one wire with two clips on either end? Also, should I
clip the powered antenna side to the post or to the cylinder?

Thanks.

--Dan

4648. Re: Hooking up a Powered Antenna to a Boom Box...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 20:22:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <0sKdnTEpfqBiS5HeRVn-iA@crocker.com>
Source record: 71466

just try it and see, with clipped together things like this you have to try
it and find which way works the best.

<dantan98@sbcglobal.net> wrote in message
news:1124913479.665054.163220@o13g2000cwo.googlegroups.com...
> Should I have one wire with two clips on either end? Also, should I
> clip the powered antenna side to the post or to the cylinder?
>
> Thanks.
>
> --Dan
>

4649. Yaesu ATAS 25

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 20:31:13 UTC
From: Popocatepetle <pvlispam.nospam@xs4all.nl>
Message-ID: <430cd911$0$11067$e4fe514c@news.xs4all.nl>
Source record: 71467

Does somebody had experience with the Yaesu ATAS 25.?

73's Pjotr

4650. Re: Hooking up a Powered Antenna to a Boom Box...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-24 20:46:08 UTC
From: dantan98@sbcglobal.net
Message-ID: <1124916367.993160.20680@g44g2000cwa.googlegroups.com>
Source record: 71468

Okay...thanks for your help. I'll post here to help those that may be passing through later...

4651. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 00:46:39 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <945qg1hmcrnk5dpt9cues8ikgic1cu3g8r@4ax.com>
Source record: 71469

On Wed, 24 Aug 2005 16:01:06 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>One day, if I can force myself to find the time, I may write my
>memoirs. I could tell you some amusing stories.
>----
>Yours, Reg, G4FGQ
>

Please force yourself, Reg, we'd all like to hear those stories. And
they should be published for all to read.

Walt

4652. Re: Earn 12% daily of your investment!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 00:50:28 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <430d15d4$0$22207$39cecf19@news.twtelecom.net>
Source record: 71470

Make12 wrote:

> I'm going to tell you about a TOP RATED AUTOSURF program that takes 5 mins of your day and then instantly credits your account 12% of what you put in. Its that easy and everyone is going crazy about it. I have personally done this and been paid.
>
> This is how it works. You have to have/get your free Stormpay or E-gold account and then you put in a multiple of 6. So the minimum is $6 and maximum is $6000. Everyday you login and click the autosurf button and it will have a timer and switch pages for you. After 12 pages you will be credited INSTANTLY your 12%. Start small and keep rolling it in, or go big and make some cash. They have NOT FAILED yet to pay. After 12 days of surfing your account expires and they process the money you have made. It goes to your Stormpay or E-gold account which ever you used in 1-7 business days... THATS IT!!
>
> Examples
>
> Start Small. with just $6 dollars. 12% is .72 cents. Everyday for 12 days = 8.64 cents. Thats 2.64 PROFIT!!!.
>
> Go big $6000. 12% is 720.00. for 12 days.. thats 8640 = 2640 PROFIT!!!...
>
> Or go in between any multiple of 6.
>
> Thank you for looking at this all I ask is thta you use my referral link. This is not a pyramid so I don't get anything from anyone you refer. Thats how this program stays alive. They don't give you money to sign up. Its FREE to sign up, but if you don't put any money within 7 days then your account is deleted.
>
> Thanks here is the link. If you like it please refer your friends with YOUR referall link. Remeber I don't get anything from anybody you refer. If you don't believe me then just email their 24 hour techsupport, or their techsupport Forum where the people who pay you are the ones who answer you. Its AWESOME.. some may already be members. Just ask them.
> http://www.12dailypro.com/?ref=11295
>
>

WOW!

And this isn't a peeramyd skeem!?!? I'm there!

tom

4653. Re: Earn 12% daily of your investment!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 01:55:45 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <a39qg111m2nn2ocdmo638no4kur2obvb6o@4ax.com>
Source record: 71471

On Wed, 24 Aug 2005 19:50:28 -0500, Tom Ring <news0002@taring.org>
wrote:

>Make12 wrote:
>
>> I'm going to tell you about a TOP RATED AUTOSURF program that takes 5 mins of your day and then instantly credits your account 12% of what you put in. Its that easy and everyone is going crazy about it. I have personally done this and been paid.
>>
>> This is how it works. You have to have/get your free Stormpay or E-gold account and then you put in a multiple of 6. So the minimum is $6 and maximum is $6000. Everyday you login and click the autosurf button and it will have a timer and switch pages for you. After 12 pages you will be credited INSTANTLY your 12%. Start small and keep rolling it in, or go big and make some cash. They have NOT FAILED yet to pay. After 12 days of surfing your account expires and they process the money you have made. It goes to your Stormpay or E-gold account which ever you used in 1-7 business days... THATS IT!!
>>
>> Examples
>>
>> Start Small. with just $6 dollars. 12% is .72 cents. Everyday for 12 days = 8.64 cents. Thats 2.64 PROFIT!!!.
>>
>> Go big $6000. 12% is 720.00. for 12 days.. thats 8640 = 2640 PROFIT!!!...
>>
>> Or go in between any multiple of 6.
>>
>> Thank you for looking at this all I ask is thta you use my referral link. This is not a pyramid so I don't get anything from anyone you refer. Thats how this program stays alive. They don't give you money to sign up. Its FREE to sign up, but if you don't put any money within 7 days then your account is deleted.
>>
>> Thanks here is the link. If you like it please refer your friends with YOUR referall link. Remeber I don't get anything from anybody you refer. If you don't believe me then just email their 24 hour techsupport, or their techsupport Forum where the people who pay you are the ones who answer you. Its AWESOME.. some may already be members. Just ask them.
>> http://www.12dailypro.com/?ref=11295
>>
>>
>
>WOW!
>
>And this isn't a peeramyd skeem!?!? I'm there!
>
>tom

Damn. I have $600K sitting in one of my IRAs that I'd like to invest for a coupla days but they will take only $6K. Plus, they don't seem to know about the magic of compounding so I guess I'll have to pass.

4654. Re: Earn 12% daily of your investment!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 02:21:19 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <zW9Pe.480$5k1.125@newssvr27.news.prodigy.net>
Source record: 71472

Wes Stewart wrote:
> On Wed, 24 Aug 2005 19:50:28 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>
>>Make12 wrote:
>>
>>
>>>I'm going to tell you about a TOP RATED AUTOSURF program that takes 5 mins of your day and then instantly credits your account 12% of what you put in. Its that easy and everyone is going crazy about it. I have personally done this and been paid.
>>>
>>>This is how it works. You have to have/get your free Stormpay or E-gold account and then you put in a multiple of 6. So the minimum is $6 and maximum is $6000. Everyday you login and click the autosurf button and it will have a timer and switch pages for you. After 12 pages you will be credited INSTANTLY your 12%. Start small and keep rolling it in, or go big and make some cash. They have NOT FAILED yet to pay. After 12 days of surfing your account expires and they process the money you have made. It goes to your Stormpay or E-gold account which ever you used in 1-7 business days... THATS IT!!
>>>
>>>Examples
>>>
>>>Start Small. with just $6 dollars. 12% is .72 cents. Everyday for 12 days = 8.64 cents. Thats 2.64 PROFIT!!!.
>>>
>>>Go big $6000. 12% is 720.00. for 12 days.. thats 8640 = 2640 PROFIT!!!...
>>>
>>>Or go in between any multiple of 6.
>>>
>>>Thank you for looking at this all I ask is thta you use my referral link. This is not a pyramid so I don't get anything from anyone you refer. Thats how this program stays alive. They don't give you money to sign up. Its FREE to sign up, but if you don't put any money within 7 days then your account is deleted.
>>>
>>>Thanks here is the link. If you like it please refer your friends with YOUR referall link. Remeber I don't get anything from anybody you refer. If you don't believe me then just email their 24 hour techsupport, or their techsupport Forum where the people who pay you are the ones who answer you. Its AWESOME.. some may already be members. Just ask them.
>>>http://www.12dailypro.com/?ref=11295
>>>
>>>
>>
>>WOW!
>>

>>And this isn't a peeramyd skeem!?!? I'm there!
>>
>>tom
>
>
> Damn. I have $600K sitting in one of my IRAs that I'd like to invest
> for a coupla days but they will take only $6K. Plus, they don't seem
> to know about the magic of compounding so I guess I'll have to pass.
>
>
>
>

I expect that if you offer to give them $600,000.00, Wes, they'll take it.
73,
Tom Donaly, KA6RUH

4655. Re: How do I test a choke balun?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 03:13:55 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <smdqg1dkt0jgemd5spisk8b4n3vv27mt77@4ax.com>
Source record: 71473

On Wed, 24 Aug 2005 13:49:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Speaking of useful data, what is the status of reflections III Sir?
>
>"Walter Maxwell" <walt@w2du.com> wrote in message
>news:vhqog19njt69qvebfp3fts92ttsplfecd9@4ax.com...
>> On Tue, 23 Aug 2005 18:17:23 -0500, Tom Ring <news0002@taring.org>
>> I'm pleased that you find my data useful, Tom,
>>
>> Walt
>
Hi Fred,

Reflections 3 is at the publisher. I don't know the current status,
but thanks for asking. I'll keep the rraa up to date at it progresses.
It'll also be announced on my web page at w2du.com.

Walt

4656. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 04:13:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gqhcasdbj295d@corp.supernews.com>
Source record: 71474

andy wrote:
>
> If I would get some low angle radiation on 80 then would'nt mind some
> performance degradation. But NEC shows that best gain would be at 90
> degrees...
> Probably could get 80 another way. Ok, but I still need to find
> "magical" antenna wire + feedline length combination. For that,
> probably 10 to 20 metres around that fishing pole. Could I model the
> vertical section as a straight (20m for example) and get same results
> as if the wire was coiled. Dont want to model helixes!

First, you can't just wind X meters of wire in a coil and expect it to behave in any way like X meters of wire stretched out. It doesn't work that way, because the field from each turn couples to all the other turns, and the coupling is much different than for a straight wire. Resonance will depend on the diameter of the winding, the number of turns, the turn spacing, and the length of the winding (actually, only two of the last three, since any two determine the third). If the turns are uniformly spaced, a model of a straight wire of the diameter of the coil will give you about the same pattern shape (just slightly fatter than a dipole, ho hum), but it won't tell you anything about what the impedance of the helix will be. You will get some useful information from the straight-wire model, though. Make a note of the resistance the model shows. Then when you build your antenna, measure the resistance (which is the impedance at resonance). Divide the modeled resistance by the measured resistance and you'll have the efficiency. It might not make you happy.

I'm afraid you're going to have to find resonance ~shudder~ experimentally.

One additional comment. Don't worry about where NEC shows the best gain to be, unless you're using the antenna only for receiving. If using it for transmitting, pay attention only to what the gain is at the elevation angles of interest for your communication goals.

Roy Lewallen, W7EL

4657. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 04:18:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gqhk3nkjda48e@corp.supernews.com>
Source record: 71475

hasan schiers wrote:
> Now that is interesting, Roy. I was going to put up a 160 m inverted L this
> summer. I am limited to only being able to go up about 45 feet, so I would
> need about another 90 feet horizontal.
>
> Are you suggesting that it might be a better arrangement to go up the 45'
> and then put up the top "T"?

It might be. You might benefit from the radiation from the horizontal portion of an L, and you might not. But if it's quite low, the radiation will be mostly straight up, and a fair amount will be expended warming up the ground. Neither will occur with a T.

> If so, roughly how long should the top part of
> the T be (each side of center) to get me to 160?

That's just what antenna modeling programs are for! Dust off your EZNEC and you'll have the answer in minutes.

>. . .

Roy Lewallen, W7EL

4658. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 04:21:43 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <11gqhq849pjtc7e@corp.supernews.com>
Source record: 71476

You're darn close. A WELL rounded triangle.

Fred W4JLE wrote:
> The pattern would look like a triangle, so the answer to your question is
> no.
>
>
>>Reg, G4FGQ wrote:
>>"There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
>>transmission line.
>>
>>The antenna consists of three 1/4-wave horizontal radiators spaced at
>>120 degree intervals.
>>
>>Is the radiation pattern in the horizontal plane perfectly
>>omnidirectional?"
>
>
>

4659. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 04:44:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gqj68743ot963@corp.supernews.com>
Source record: 71477

Jerry wrote:
>
> Roy,
> I built basically a loaded mobile antenna that went onto an airport
> building in Raleigh, NC (about 60 feet) I was reluctant to build it because
> I was afraid the people that I made it for (CAP) might not know how to do
> the elevated radials. I was afraid they might come back on me. I reckon I am
> one of those "trial and error" hams that has tried about everything in the
> last 40 years and I am still learning. Anyhoo, BOY was I WRONG! They put
> the thing on the air and it really puts out a good signal! None of us have
> done any measurements or NEC modeling, etc. Frankly, I was surprised as I
> had done very few vertical installations (well, I've got an AV8 vertical
> all-bander). All I know is, at the 60-70 foot level with tuned radials, it
> really sings!
>
> 73
>
> Jerry
> K4KWH

I spend a lot of time learning about how antennas work, and try to pass the information along as best I can. But I find over and over again that most people don't have the ability to evaluate things in anything but a binary fashion -- everything has to be "good" or "bad" (or "good" and "evil"), "theory" or "experiment", "perfect" or "no good"; antennas either "work" or "don't work". So what I say is often interpreted as a statement that an antenna has to be perfect in order to work well, or to "work" at all -- whatever that means. But that's not at all what I'm saying. Let me try once again to clarify what I mean.

Just about anything will radiate, from a dummy load on up. But some antennas radiate a greater fraction of the applied power than others, and some radiate more in desired directions than others. What I try to do is to understand how they work so I can, if I want, optimize an antenna for a particular purpose. (And I don't necessarily always want to -- sometimes it's not worth the trouble.) But an antenna doesn't have to be optimum in order to talk to people. It doesn't even have to be optimum to get sixty-over-nine reports and break pileups. And it doesn't even have to be anywhere near optimum in order to provide you with many pleasant QSOs. You don't have to understand anything at all about how antennas work to put one up that will give you many hours of fine QSOs -- I must have put up hundreds without having a clue about how they really worked, and I worked plenty of stations. And I, like anyone else who's been around a few years, have a handful of great stories about some really crappy antenna that worked the rare DX. (I've even done it

with a crappy antenna and QRP.) What you have to understand is that you can work *more* stations, more reliably, if you do take the time and trouble (and if your yard and pocketbook will allow) to make your antenna more efficient and make it concentrate its radiation in the directions you want. But to a lot of people, it's not worth the time and trouble -- and that's fine.

Some people simply aren't interested in the technical aspects of the hobby, and would rather spend their time doing something other than learning about or even modeling antennas. There's nothing at all wrong with that. Those folks won't find many of my postings to be interesting, and won't read them, which is fine. And, like I did for a long time, they'll put up plenty of antennas that work well enough -- and even from time to time one that works exceptionally well. But I hope my postings will be useful to those people who are interested in learning more about antennas and/or who enjoy squeezing more performance out of them. And I learn from this, too!

Learning about antennas doesn't diminish your ability to experiment and successfully create working antennas. What it does is to give you more tools, so you can -- if you choose, but only if you choose -- make an antenna do what you want, rather than putting it up and settling for whatever it does.

Roy Lewallen, W7EL

4660. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 06:42:54 UTC
From: dvd567@webtv.net
Message-ID: <12447-430D686E-36@storefull-3272.bay.webtv.net>
Source record: 71478

well almost part 15.

4661. A choke balun is an impedance transformer.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 07:29:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dejs0elnm1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71479

An unbalanced-to-balanced tuner is an over-complicated and unwieldy-to-use collection of components. It is usually operateable over only one or two adjacent bands. The only nice thing which can be said about it is that it looks good when outside of its box.

A choke balun can be inserted between a high-Zo balanced transmission line and the tuner to allow an ordinary, simple, unbalanced tuner to be used.

In the range 1.8 - 30 MHz, the balun consists of a relatively few turns of twin, flexible speaker cable wound on a ferrite ring about 2 inches in diameter. Or a pair of 18-gauge plastic-insulated wires can be wound alongside each other around the core. This is mechanically more convenient, more robust and less lossy than using coaxial cable with its very small-diameter inner conductor.

Furthermore, the twin-line balun, with its higher Zo impedance of roughly 120 ohms, has electrical advantages over the usually recommended 50-ohm coax. 120 ohms is intermediate in value between 450 and 600 ohms of the transmission line and the 50 ohms impedance to which it is eventually to be transformed by the tuner. This presents to the tuner a more manageable range of impedances it has to handle.

The line wound on the balun has to withstand the same high voltages which arise on the main transmission line with VSWR.

It is not generally appreciated that a choke balun behaves as an impedance transformer. Insofar as the tuner and transmitter are concerned it is a short length of 120-ohm line in tandem with the main balanced line which has a different impedance. The transformation ratio depends only on the length of line on the balun and on the operating frequency. It operates on the input impedance of the main line which can vary with frequency over a very wide range in a random manner. Therefore there is no fixed impedance transformation ratio between it is used. It can be considered indeterminate.

In general the transformation ratio increases linearly with frequency. To keep things under control during design the length of line on the balun should not exceed about 1/10th or 1/8th of a wavelength at the highest frequency of use. The propagation velocity on the balun line is about the same as when it is drawn out straight. At 30 MHz this limits line length to about 1 metre or 3 feet or preferably less.

So for the balun to be effective as a choke at 1.8 MHz the permeability of the ferrite material must be large enough to produce sufficient inductance with the number of turns on the core permitted

by the restriction on line length.

Here is another advantage of twin-line over coax because the propagation velocity on coax is much lower than twin line which further reduces available line length and also the possible number of turns.

Even at 30 MHz, loss in the balun is very small because of the short length of line and wire thickness. A small line loss in the core material does occur because of flux which leaks outside the immediate vicinity of the line into the ferrite core.

Most heating loss in the core is due to longitudinal current in the choke at the lowest operating frequency when, insofar as longitudinal current is concerned, the pair of wires behave as a single inductance-producing wire. But the power available from longitudinal currents is already lost from the antenna anyway. To mimise longitudinal current make sure there is sufficient inductance - which is the sole purpose.

For the design and peformance of a choke balun download program BALCHOKE from website below.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

4662. Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 12:06:31 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1124971591.454857.181250@z14g2000cwz.googlegroups.com>
Source record: 71480

Hey all,

I was curious if you are aware of any new antenna developments /
techniques in regards to AM broadcasting. I'm specifically interested
in smaller AM antennas with high power ratings and a broadband response
between the AM channels.

I've already stumbled upon DLM from the University of Rhode Island,
Fractal Antennas from UCLA, EH Antennas from Ted Hart, Isotron, etc.

Thanks!

CD

4663. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 12:48:54 UTC
From: Dave <noone@nowhere.com>
Message-ID: <QZadnaLxDsigI5DeRVn-sQ@crocker.com>
Source record: 71481

you missed cfa, and plasma antennas i think.

"CD" <mr.whatever@gmail.com> wrote in message
news:1124971591.454857.181250@z14g2000cwz.googlegroups.com...
> Hey all,
>
> I was curious if you are aware of any new antenna developments /
> techniques in regards to AM broadcasting. I'm specifically interested
> in smaller AM antennas with high power ratings and a broadband response
> between the AM channels.
>
> I've already stumbled upon DLM from the University of Rhode Island,
> Fractal Antennas from UCLA, EH Antennas from Ted Hart, Isotron, etc.
>
> Thanks!
>
> CD
>

4664. Re: 3-phase antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 13:40:11 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <Dd2dnd2dK461V5DeRVn-oQ@comcast.com>
Source record: 71482

"BKR" <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE> wrote in message
news:11gqhq849pjtc7e@corp.supernews.com...
>
>
> You're darn close. A WELL rounded triangle.
>
Interestingly, you can make it a perfect circle by connecting the ends of
the 3 radiators with a conductor that forms a circle. ie a 3 phase halo. If
you look at the radiation pattern for this arrangement, or Reg's original
one in free space, the major gain is perpenticular to the plane of the
radiators, not in plane, although the effect is not very pronounced.

Tam/WB2TT
>
>
> Fred W4JLE wrote:
>> The pattern would look like a triangle, so the answer to your question is
>> no.
>>
>>
>>>Reg, G4FGQ wrote:
>>>"There is a 3-phase transmitter feeding a 3-phase antenna via a 3-wire
>>>transmission line.
>>>
>>>The antenna consists of three 1/4-wave horizontal radiators spaced at
>>>120 degree intervals.
>>>
>>>Is the radiation pattern in the horizontal plane perfectly
>>>omnidirectional?"
>>
>>

4665. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 15:56:56 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1124985416.379179.326280@g49g2000cwa.googlegroups.com>
Source record: 71483

I've also skimmed through some CFA, Plasma Antennas, and DDRR stuff.
Out of these, I think Rob Vincen'ts DLM looked promising. I've read
through the test report for some of his antennas and they look
promising. However, I don't think he's tested his pieces on the lower
AM bands. As for the others, I'm not quite sure about them.

4666. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 16:00:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lhqrg1590d1qub0utfqmctpeal6qv4rgrq@4ax.com>
Source record: 71484

On 25 Aug 2005 05:06:31 -0700, "CD" <mr.whatever@gmail.com> wrote:

>Hey all,
>
>I was curious if you are aware of any new antenna developments /
>techniques in regards to AM broadcasting.

In your area of Clearwater FL, that shouldn't be a problem - what with all that seawater lapping at your ankles (metaphorically speaking, of course).

>I'm specifically interested
>in smaller AM antennas with high power ratings and a broadband response
>between the AM channels.

That is a contradiction in goals.

>I've already stumbled upon DLM from the University of Rhode Island,
>Fractal Antennas from UCLA, EH Antennas from Ted Hart, Isotron, etc.

Then you should be warned that stumbling is par for the course.

Consult the archives.

73's
Richard Clark, KB7QHC

4667. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 17:04:46 UTC
From: see sea oh ecks at you aitch see dot comm <spammers@bugger.off.invalid>
Message-ID: <dektneojs1@gabriel.uhc.com>
Source record: 71486

```
Pirate Radio <dvd567@webtv.net> wrote:
> well almost part 15.
>
Inasmuch as it's unlicensed!
--
Chris Cox, N0UK/G4JEC NIC Handle: CC345
If at first you don't succeed, skydiving is not for you.
```

4668. Re: Please help!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 17:22:30 UTC
From: richardharrison@webtv.net
Message-ID: <1065-430DFE56-67@storefull-3257.bay.webtv.net>
Source record: 71485

Roy, W7EL wrote:
"First, you can`t just wind X meters of wire on a coil and expect it to behave in any way like X meters of wire stretched out."

Of course, Roy is right. Yet, the more wire wound coonsistently on a form, the more inductance and the lower its self resonant frequency.

My 19th edition of the "ARRL Antenna Book" offers some guidance in winding radial-mode helical antennas based on experimental results. It appears on page 6-26. It says that a 1/2-wavelength of wire wound with equal spacing between turns comes close to making a resonant 1/4-wave whip.

J.L. Davis, W5LIT (now SK) in 1949 made such an antenna to use on his new Ford, with a surplus PE-103 powering his mobile rig. The antenna was wound on a bamboo fishing pole. It had such a high-Q that when he modulated,a plasma broke out at the tip of the antenna. J.L. was an operator at KXYZ and KPRC which shared a transmitting tower. He made lots of contacts using the fishing pole antenna.

Best regards, Richard Harrison, KB5WZI

4669. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 19:26:23 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <del612pgq1@ctb-nnrp2.saix.net>
Source record: 71487

"see sea oh ecks at you aitch see dot comm" <spammers@bugger.off.invalid>
wrote in message news:dektneojs1@gabriel.uhc.com...
> Pirate Radio <dvd567@webtv.net> wrote:
>> well almost part 15.
>>
> Inasmuch as it's unlicensed!
> --
> Chris Cox, N0UK/G4JEC NIC Handle: CC345
> If at first you don't succeed, skydiving is not for you.

May I suggest that you direct your enquiry to the nearest FCC office. I'm
sure they will be very keen to help you!

4670. Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 20:25:34 UTC
From: Slim <slim.pickens@big.bucks.com>
Message-ID: <k2asg1dslqln4h4phgof62eqmj7cupvqau@4ax.com>
Source record: 71488

Hi,
I know nothing about electronics etc. My question is:

I have an old 12' dish that is no longer in use. Is it possible to use
that as a high gain FM antenna? I'm about 35 miles out of town, and
located in a low point so my FM reception is poor. This 12' dish is
stitting there rusting. What are the chances of removing the LNB and
getting some FM reception from it?
Any other uses for a 12' mesh dish? Astronomy? Radio Telescope?
At present I've got it pointed right at one of the neighbours houses
and it must be annoying..... :-)
Cheers

4671. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 20:33:57 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <a8b15$430e2b4d$97d55b95$8679@ALLTEL.NET>
Source record: 71489

Do a Google search on CFA antennas. Touted to be the most fantastic antenna since sliced bread. You might also visit fractenna.com for another source.

"CD" <mr.whatever@gmail.com> wrote in message news:1124971591.454857.181250@z14g2000cwz.googlegroups.com...
> Hey all,
>
> I was curious if you are aware of any new antenna developments /
> techniques in regards to AM broadcasting. I'm specifically interested
> in smaller AM antennas with high power ratings and a broadband response
> between the AM channels.
>
> I've already stumbled upon DLM from the University of Rhode Island,
> Fractal Antennas from UCLA, EH Antennas from Ted Hart, Isotron, etc.
>
> Thanks!
>
> CD
>

4672. TGM Hybrid Quad Antenna's

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 20:34:44 UTC
From: Herman R&#65533;mer - PA9HR <romerherman@hotmail.com>
Message-ID: <430e2b6c$0$63072$dbd4f001@news.wanadoo.nl>
Source record: 71490

Anyone around who can tell me if it is worth to buy one with a additonal
reflector ?
Hope someone bought the reflector as an additional kit and can tell me if it
made a
significant difference.

Herman R&#65533;mer PA9HR

4673. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 21:05:34 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndgscku.t7u.bit-bucket@shell.config.com>
Source record: 71491

On Thu, 25 Aug 2005 12:48:54 -0000, Dave wrote:
> "CD" <mr.whatever@gmail.com> wrote:
>>
>> I was curious if you are aware of any new antenna developments /
>> techniques in regards to AM broadcasting. I'm specifically interested
>> in smaller AM antennas with high power ratings and a broadband response
>> between the AM channels.
>>
>> I've already stumbled upon DLM from the University of Rhode Island,
>> Fractal Antennas from UCLA, EH Antennas from Ted Hart, Isotron, etc.
>
> you missed cfa, and plasma antennas i think.

And all the antennas featured in the April issues of QST going
back many decades. HI!HI!

[sloppy top-posting corrected.]

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

4674. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 21:41:19 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <deldtv$h58$1@ctb-nnrp2.saix.net>
Source record: 71492

"Slim" <slim.pickens@big.bucks.com> wrote in message
news:k2asg1dslqln4h4phgof62eqmj7cupvqau@4ax.com...
> Hi,
> I know nothing about electronics etc. My question is:
>
> I have an old 12' dish that is no longer in use. Is it possible to use
> that as a high gain FM antenna? I'm about 35 miles out of town, and
> located in a low point so my FM reception is poor. This 12' dish is
> stitting there rusting. What are the chances of removing the LNB and
> getting some FM reception from it?
> Any other uses for a 12' mesh dish? Astronomy? Radio Telescope?
> At present I've got it pointed right at one of the neighbours houses
> and it must be annoying..... :-)
> Cheers
>

It's too small to be of any use for FM broadcast band - diameter is only
about 1/10 of the wavelength.
Rather invest in a yagi or corner reflector for FM broadcast.

73
Roger ZR3RC

4675. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 21:42:50 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <tYKdneVGs5AQppPeRVn-rA@bright.net>
Source record: 71493

Won't get too much gain at ~100 MHz (FM radio band in the USA). Plus
you should have a line of sight view from you to the transmitting tower...

Scott

Slim wrote:

> Hi,
> I know nothing about electronics etc. My question is:
>
> I have an old 12' dish that is no longer in use. Is it possible to use
> that as a high gain FM antenna? I'm about 35 miles out of town, and
> located in a low point so my FM reception is poor. This 12' dish is
> stitting there rusting. What are the chances of removing the LNB and
> getting some FM reception from it?
> Any other uses for a 12' mesh dish? Astronomy? Radio Telescope?
> At present I've got it pointed right at one of the neighbours houses
> and it must be annoying..... :-)
> Cheers
>

4676. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-25 21:48:18 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <8cef0$430e3caa$97d55b95$18119@ALLTEL.NET>
Source record: 71494

Put your ear at the feedpoint and you can listen to see if the neighbors are upset about it.

"Slim" <slim.pickens@big.bucks.com> wrote in message news:k2asg1dslqln4h4phgof62eqmj7cupvqau@4ax.com...
> Hi,
> I know nothing about electronics etc. My question is:
>
> I have an old 12' dish that is no longer in use. Is it possible to use
> that as a high gain FM antenna? I'm about 35 miles out of town, and
> located in a low point so my FM reception is poor. This 12' dish is
> stitting there rusting. What are the chances of removing the LNB and
> getting some FM reception from it?
> Any other uses for a 12' mesh dish? Astronomy? Radio Telescope?
> At present I've got it pointed right at one of the neighbours houses
> and it must be annoying..... :-)
> Cheers
>

4677. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 01:05:18 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <TTtPe.1284$HM2.472@bignews5.bellsouth.net>
Source record: 71495

If it was solid, you could use it and a microphone to pick up sounds from
far away - like the ones they use on the sidelines at pro football games.
but being mesh - - I'm thinking a conversion to maybe a grill.
"Slim" <slim.pickens@big.bucks.com> wrote in message
news:k2asg1dslqln4h4phgof62eqmj7cupvqau@4ax.com...
> Hi,
> I know nothing about electronics etc. My question is:
>
> I have an old 12' dish that is no longer in use. Is it possible to use
> that as a high gain FM antenna? I'm about 35 miles out of town, and
> located in a low point so my FM reception is poor. This 12' dish is
> stitting there rusting. What are the chances of removing the LNB and
> getting some FM reception from it?
> Any other uses for a 12' mesh dish? Astronomy? Radio Telescope?
> At present I've got it pointed right at one of the neighbours houses
> and it must be annoying..... :-)
> Cheers
>

4678. Program HYPERGEO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 01:20:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <delqoc$2n2$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71496

My apologies to people who have had no success with attempts to
download program HYPERGEO from my website.

I forgot to upload it.

It is now waiting at the bottom of the downloading list.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4679. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 02:15:13 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <430E7B31.2050502@comcast.net>
Source record: 71497

Roy,

Is there an EZNEC howto. I have tried to use the demo a few times and can't seem to get started. I tried to model a simple dipole and a center loaded vertical and got very lost.

Thanks,
Dan

Roy Lewallen wrote:
> hasan schiers wrote:
>
>> Now that is interesting, Roy. I was going to put up a 160 m inverted L
>> this summer. I am limited to only being able to go up about 45 feet,
>> so I would need about another 90 feet horizontal.
>>
>> Are you suggesting that it might be a better arrangement to go up the
>> 45' and then put up the top "T"?
>
>
> It might be. You might benefit from the radiation from the horizontal
> portion of an L, and you might not. But if it's quite low, the radiation
> will be mostly straight up, and a fair amount will be expended warming
> up the ground. Neither will occur with a T.
>
>> If so, roughly how long should the top part of the T be (each side of
>> center) to get me to 160?
>
>
> That's just what antenna modeling programs are for! Dust off your EZNEC
> and you'll have the answer in minutes.
>
> >. . .
>
> Roy Lewallen, W7EL

4680. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 02:49:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jm0tg1dcjlvv2rsign0q0bbrsi5h6fc4kc@4ax.com>
Source record: 71498

On Thu, 25 Aug 2005 19:15:13 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Is there an EZNEC howto. I have tried to use the demo a few times and can't seem
>to get started. I tried to model a simple dipole and a center loaded vertical
>and got very lost.

Hi Dan,

It would be far simpler to hit the "Open" button and select an already
existing example of an antenna and see where that goes.

73's
Richard Clark, KB7QHC

4681. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 02:57:33 UTC
From: Dan Richardson <>
Message-ID: <071tg1lfqolkpjf7cheufekb8hc8ug30jd@4ax.com>
Source record: 71144

On Thu, 25 Aug 2005 19:15:13 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Is there an EZNEC howto. I have tried to use the demo a few times and can't seem
>to get started. I tried to model a simple dipole and a center loaded vertical
>and got very lost.

Perchance have you happen to read the help file?

Hint; that information is there.

Danny, K6MHE

4682. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 04:15:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gt5qqk7qqr226@corp.supernews.com>
Source record: 71499

dansawyeror wrote:
> Roy,
>
> Is there an EZNEC howto. I have tried to use the demo a few times and
> can't seem to get started. I tried to model a simple dipole and a center
> loaded vertical and got very lost.

In the main window, click Help, then Contents. This is the EZNEC manual.
Read the Getting Started section, and go through the "Test Drive"
tutorial it directs you to. That should get you started.

Roy Lewallen, W7EL

4683. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 04:15:32 UTC
From: nm5k@wt.net
Message-ID: <1125029732.944010.231360@g43g2000cwa.googlegroups.com>
Source record: 71500

All I know is, at the 60-70 foot level with tuned radials, it
really sings!

They do. I've always preferred an elevated vs ground mount
vertical. At that height on 80m, you appx equal to a ground
mount system with 60+ radials, if they are using 3 or 4.
Also, more clear of surroundings, etc.. Your local ground/space
wave will usually be better. I bet it's good to dx at 2-3 AM...
I've also used the usual L's and T's on 160m. Like Roy mentioned,
which is better will depend on the angle needed. The T is better
for strict DX, but often the L can be better to regional stuff.
I'd have to double check, but I don't think adding the other
half of the "T" top really changes the resonant freq a whole lot
vs the L. IE: when using a "T", you will still need nearly a full 1/4
wave from the base to either end of the top horizontal section
if not loaded.
What can be handy for low banders, is nearly any dipole can be
loaded up as a T vertical, if you short the conductors. Doesn't
matter what type of feedline. Loading a 80m dipole as a T on
160m, is usually far better than trying to load the dipole as a
dipole...
If you don't short the feed together, but only feed one conductor,
you then have a quicky L...Thats one quick way to compare them on
different signals to see which is best at a given time. 160 is kinda
weird...Often an L will outdo a T early in the evening, but usually
later,
the T will be better, even on the same short paths. Would seem to
indicate the higher angles are less used later at night..
Sometimes I run a 80 meter turnstyle, and feed that as a vertical with
an "X" capacity hat... That made a pretty good vertical which usually
beat
the L late at night. BTW, the vertical part of both antennas are appx
40-45 ft or so.. So fairly equal in that regard.
MK

4684. Anyone here have personal experience with the Micro908 antenna analyst?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 07:08:48 UTC
From: News Xtra <jdekker@xtra.co.nz>
Message-ID: <3ezPe.6027$iM2.589292@news.xtra.co.nz>
Source record: 71501

Comments good and bad appreciated prior to purchase.
Regards,
John ZL2TTM

4685. Best Antenna for Receiving - NEWBIE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 08:56:55 UTC
From: Birderman <birderman@removespamhotmail.com>
Message-ID: <1125046611.272f62ab9287ee65fc91f507d9c1c2de@teranews>
Source record: 71502

Hi,

Being a Newbie, in West London, to this hobby of SWL, I am seeking advice on best antenna to use.

I have ICOM PCR1000 and Yaesu FRG100. At present I use a 25MHz-1300MHz (TANDY/RADIO SHACK) Discone for the ICOM and a long wire with HOWES ATU on the FRG. Both rigs used in first floor room so grounding is a problem as I would nead around 10m cable run to get to a ground rod, at moment connected to water pipe. The ICOM performs well with the Discone throughout its range, even on the HF. The longwire is not as long some mentioned on the websites/books, its around 8m long and slopes east/west direction, cannot install in any othe direction or increase its length. The FRG performs well but only seems to receive channels from the East and sometimes from west, channels North and South seem to be elusive. The broadcast bands work well, but HF Airband and Datamodes seem to be very weak and noisy.

Since my main interest is Airband and Datamodes I would like to be able to improve my reception of these.

So I hope answesrs to the following questions will help me in reolving the problems:
1/ I understand that Longwires can be directional so limit whats being received, so considering my available space would one of the vertical wide range give better alround performance with restrictions on direction.

2/ Are Dipoles directional as ?

3/ Do Dipoles need to be mounted horizontally ?

4/ Is it possible to have dipole with both elements parallel to each other or do they need the traditional arrangement of being opposite each other.

5/ Can the Dipole be made using wire with the Elements arranged in an inverted V formation ?

6/ Can Longwire be folded/bent round corners ?

7/ Is it possible to use several long wires in different directions connected to the rig simulatenously ?

Any help and suggestions in resolving the above will be most appreciated.
Regards
Birderman
West London, UK

4686. OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 11:26:49 UTC
From: Al <aburzynski@nojunk.satx.rr.com>
Message-ID: <Z%CPe.196317$0f.178522@tornado.texas.rr.com>
Source record: 71503

I acquired a Tektronix 2430A digital oscilloscope and I'm having problems with it. Is there a newsgroup that would be proper to post such a question to? Thanks.

Al KA5JGV
San Antonio, TX

4687. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 13:27:07 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <gb5ug1tc9bup73auopud79lgqugb9unmcg@4ax.com>
Source record: 71504

I bought EZNEC +,v4 and enrolled in the ARRL antenna course. With my
many years of experience (bad & good!) I knew it was unlikely I would
really get much out of either....

It has turned into one of the best educational bargains I have ever
encountered. I am less than halfway through the course and find my
biggest problem is that I keep running off in all directions to check
out my past antenna failures.

My wounded ego is healing nicely and I am satisfied that I am no
antenna expert. I am a perpetual antenna student!

On Thu, 25 Aug 2005 19:15:13 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Roy,
>
>Is there an EZNEC howto. I have tried to use the demo a few times and can't seem
>to get started. I tried to model a simple dipole and a center loaded vertical
>and got very lost.
>
>Thanks,
>Dan
>

4688. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 15:32:48 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <ACGPe.211991$HI.184246@edtnps84>
Source record: 71505

"Al" <aburzynski@nojunk.satx.rr.com> wrote in message
news:Z%CPe.196317$0f.178522@tornado.texas.rr.com...
>I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
>with it. Is there a newsgroup that would be proper to post such a question
>to? Thanks.
>
> Al KA5JGV
> San Antonio, TX

You might try rec.radio.amateur My solution to such a problem would be to buy the service manual. Problem with oscilloscopes is you often need a scope to fix a scope. What kind of problems are you getting?

Regards,

Frank

4689. Re: Anyone here have personal experience with the Micro908 antenna analyst?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 15:44:55 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <XNGPe.211994$HI.94256@edtnps84>
Source record: 71506

> Comments good and bad appreciated prior to purchase.
> Regards,
> John ZL2TTM

I have no experience with this particular device, but have studied the specifications available on the web. From the point of view of a low cost, single port, network analyzer it does seem to be much better than any of the others available, such as the MFJ units. As with all the units there does not seem to be any accuracy specified. I would have liked to see the ability to measure < 5 ohms, and go below 1 MHz. A Smith Chart display would also have been very useful.

I think it is a good deal and would recommend it. Problem is, for the moment, they do not seem to be available.

Regard,

Frank

4690. Re: Best Antenna for Receiving - NEWBIE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 16:03:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c3bug1hjai66nat6q34k171nbi84tjmt2g@4ax.com>
Source record: 71507

On Fri, 26 Aug 2005 09:56:55 +0100, "Birderman"
<birderman@removespamhotmail.com> wrote:

>So I hope answesrs to the following questions will help me in reolving the
>problems:
> 1/ I understand that Longwires can be directional

Hi OM,

Your 8 meter "long wire" is long only for frequencies above roughly
20MHz. You neglect to offer how high it is, but in all probability,
it is lower than a quarter wavelength for mid-HF. In this regard (and
being unbalanced) it is probably quite omni-directional.

>so considering my available space would one of the vertical
>wide range give better alround performance with restrictions on direction.

No.

> 2/ Are Dipoles directional as ?

As what? the long wire? Same kind of problem of being low to the
ground. You might get some directionality gain from having a balanced
antenna - being able to HEAR the difference is another matter (and
more to the point, you would want to null noise sources which might be
a possibility).

> 3/ Do Dipoles need to be mounted horizontally ?

All depends on your goals. Otherwise, no, as long as you can make a
right angle connection at the midpoint (or snake the drive line up
through the interior of the lower section - research a "sleeve
dipole").

> 4/ Is it possible to have dipole with both elements parallel to
>each other or do they need the traditional arrangement of being opposite
>each other.

This anticipates your question about a V antenna:

> 5/ Can the Dipole be made using wire with the Elements arranged
>in an inverted V formation ?

Yes, such an antenna is so named.

> 6/ Can Longwire be folded/bent round corners ?

Yes, but as you are putting this to wideband use, such elaborations do
not really contribute to the whole.

> 7/ Is it possible to use several long wires in different
>directions connected to the rig simulatenously ?

Yes. This is called a "fan dipole" and the wires are usually cut for
different bands.

73's
Richard Clark, KB7QHC

4691. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 16:45:41 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <VGHPe.2442$z2.1377@newsread3.news.pas.earthlink.net>
Source record: 71508

Hi Slim,

First, your question is not at all "stupid" for someone with a non-electronic background.

Second, I apologize for some of the members of this NG who take the time to post replies, but then offer only snide remarks and insults to the person with the question.

Now to your question... Your dish--big as it is--is not big enough to make an effective reflector for the broadcast FM band. Your best bet for fringe FM reception would be a high-gain FM-band Yagi, which you could probably locate with a net search.

You might be able to have some fun with your big dish by putting a UHF-TV bowtie or loop at the feet point, and pointing it at your local sources of UHF-TV broadcasts (if any).

BTW, if you subscribe to satellite TV out there, the satellite services have lots of nice music channels available.

Good luck, Ed

"Slim" <slim.pickens@big.bucks.com> wrote in message news:k2asg1dslqln4h4phgof62eqmj7cupvqau@4ax.com...
> Hi,
> I know nothing about electronics etc. My question is:
>
> I have an old 12' dish that is no longer in use. Is it possible to use
> that as a high gain FM antenna? I'm about 35 miles out of town, and
> located in a low point so my FM reception is poor. This 12' dish is
> stitting there rusting. What are the chances of removing the LNB and
> getting some FM reception from it?
> Any other uses for a 12' mesh dish? Astronomy? Radio Telescope?
> At present I've got it pointed right at one of the neighbours houses
> and it must be annoying..... :-)
> Cheers
>

4692. Re: Best Antenna for Receiving - NEWBIE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 16:57:32 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <s8u3u2-6or.ln1@p400bob.personal.cox.net>
Source record: 71510

Just a few comments..

- When receiving only the important part is to have a good signal to noise ratio. HF is always pretty noisy and pretty well never below the receiver noise floor. Antenna design for HF RX needs to consider reducing noise as well as increasing signal.

- A dipole has a maximum response at right angles to the wire. This ONLY applies if the dipole is a half wavelength long and is centre fed. (Some pattern skewing will normally be evident with an end fed dipole in the direction away from the feedpoint) A piece of wire one wavelength long will tend to exhibit maximum responses at about 45 degrees to the wire. ie there will be 4 lobes in the horizontal plane. You see then that it isnt simple to give a straight answer on this. Whatever frequency you choose for the particular wire length you will get varying patterns. You can of course cut the antenna for the band of interest.

- Vertical antennas tend to be noisier than horizontal antennas. (ie they pick up more local man made noise)

- There is no reason why you cant mount a dipole vertically or even diagonally. It is important though to have the feed line at right angles to the wire for some length. The pattern is of course affected by this orientation. When it is vertical it will tend to radiate equally in all (horiz) directions. You should also consider the ground as a kind of lossy reflector.

- You might like to look at a folded dipole antenna. I have heard the claim that they are less noisy than a single wire dipole. Suggest you have a look at Mr Cebik's TFDP on http://www.cebik.com/wire/wbfd.html

- Two parallel elements will generally speaking look like a continuation of the transmission line and not radiate/receive as effectively. It depends on the spacing though. You can tune the distance apart so that some gain in a particular direction/directions will occur. I would suggest you keep away from this for general HF use.

- A right angled dipole (lookup "Inverted V") with the feedpoint at the highest point is a valid design. I'll admit I havent researched it but anecdotal comments to me in the past say it works much better than a dipole with a lower feedpoint but same average height.

- Yes a long wire can be bent. It is surprising (to me) how much it doesnt affect directivity. (Assuming the bends arent too great!) You may wish to model this kind of thing (and other antenna designs) using Eznec/4NEC2 etc. Its all very fascinating.

- A wire in a horizontal V shape will tend to radiate/receive more in the direction of the open end of the V. Once again though for varying frequencies/lengths this behaviour will be variable.

- Yes you can connect more than one wire to the RX at one time. There will of course be interaction depending on their length and usage frequency. You may get a useful directive pattern or something that is useless.

- If you want to monitor a specific spot frequency on HF I would suggest a single quad loop.

- If you really want to fiddle with a sharply tuned low noise antenna have a look at magnetic loops. They can usually be made to cover a 2:1 (or more) freq range and maybe what you are after for RX only purposes. The signal strength will be lower than (say) a dipole but the signal to noise will be much greater. (anecdotal knowledge)

- Make sure your station grounding is good. For noise reduction as well as safety. You may also want to check your house appliances for noise creation and suppress them. Keep in mind that at the distance you currently have to ground that looks like a 1/4 wave on about 7Mhz, 3/4 on 21Mhz etc and thus a high impedence path. ie the noise volts in the system (at those freqs) wont flow well to ground through this path. In fact any other noise that exists on the water pipe ground from other sources may interfere. Whether running a separate piece of braid/wire will help is an unknown. It depends on a number of variables, but it cant however hurt to try. Also ensure that power and other boxes connected (eg a computer for digi modes) are single point earthed and isolated accordingly. (eg if you are using a soundcard to demodulate digi signals make sure there is (say) transformer coupling between the radio and computer)

Hope this is helpful. My suggestion would be a WBFB as big as will fit in your yard, maybe bending some of it to fit. Also keep the feedpoint high (ie inverted V construction) Also run a thick braid earth from your station to a seperate ground stake. Read up on this espcially in the area of grounding RF rather than just safety issues. Then bond that stake to your electrical ground as well (ie outside the house)

Cheers Bob W5/VK2YQA East Texas

Birderman wrote:
> Hi,
>
> Being a Newbie, in West London, to this hobby of SWL, I am seeking advice on
> best antenna to use.

4693. Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 17:03:06 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <fXHPe.5152$ct5.5069@fed1read04>
Source record: 71509

I was looking for an antenna for my LF/VLF converter.
The converter is from Jakson Harbor Press and uses a
SA602 chip to convert 10-400 khz up to 14.010-14.400.
It has 2 five pole L.P. filters (cutoff @ 500khz).

For $12, it can't be beat. Anyways, I've got it running
and everything that should be grounded is grounded. I've
got a antenna lead with an alligator clip on it and I'm
probing around, listening to WWVB. I try my 40m inverted
V (fed with ladder line & coax). I get a pretty good signal
on the "hot" side (the side that connects to the center of my
coax) but also I get the same signal from the ground side so
I left it there.

The path for the 40m antenna is radio/coax/coax coil/ladderline/
antenna. The converter is hooked to the junction where
the coil transitions to the ladder line. It's just a pl-259 with one
side of the ladder line going into the center pin and the other side
soldered to the shell. I figure I'll just go out and unhook the
converter's antenna clip when I use the 40m antenna.

Getting gutsy, I decided to see what would happen if I didn't
unhook the converter and transmitted into the 40m antenna
I tried 1/2 watt - no damage. I then tried different power levels
finally ending up with a 15.2w CW carrier. No damage!

I thought I'd blow my little converter. Anyone care to educate
me as to why it didn't blow? Would it have blown up if I had
hooked to the other side of the ladder line? Did the 2 five pole
low pass filters save it?
--
73 de Ken KG&#65533;WX - Flying Pigs #-1055
Elecraft K2 #4913

4694. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 18:16:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gun4gbs4dik60@corp.supernews.com>
Source record: 71511

Rec.radio.amateur.homebrew would a good place for that question. And if there are other groups which are better yet, the folks there could direct you to them.

Roy Lewallen, W7EL

Al wrote:
> I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
> with it. Is there a newsgroup that would be proper to post such a question
> to? Thanks.
>
> Al KA5JGV
> San Antonio, TX
>
>

4695. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 18:18:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gun6qpp4tr193@corp.supernews.com>
Source record: 71512

John Ferrell wrote:
> . . .
> I am a perpetual antenna student!

And so are we all.

Roy Lewallen, W7EL

4696. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 18:21:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11guncm11mepcff@corp.supernews.com>
Source record: 71513

I'll bet if you put a little microphone at the focal point, you could hear things a long way away!

You could also line it with aluminum foil and use it as a solar oven. Be careful, though! The focal point will get very, VERY hot. And bright.

Roy Lewallen, W7EL

4697. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 18:23:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11gungtfmn46a42@corp.supernews.com>
Source record: 71514

My money's on the filter.

Roy Lewallen, W7EL

Ken Bessler wrote:
> I was looking for an antenna for my LF/VLF converter.
> The converter is from Jakson Harbor Press and uses a
> SA602 chip to convert 10-400 khz up to 14.010-14.400.
> It has 2 five pole L.P. filters (cutoff @ 500khz).
>
> For $12, it can't be beat. Anyways, I've got it running
> and everything that should be grounded is grounded. I've
> got a antenna lead with an alligator clip on it and I'm
> probing around, listening to WWVB. I try my 40m inverted
> V (fed with ladder line & coax). I get a pretty good signal
> on the "hot" side (the side that connects to the center of my
> coax) but also I get the same signal from the ground side so
> I left it there.
>
> The path for the 40m antenna is radio/coax/coax coil/ladderline/
> antenna. The converter is hooked to the junction where
> the coil transitions to the ladder line. It's just a pl-259 with one
> side of the ladder line going into the center pin and the other side
> soldered to the shell. I figure I'll just go out and unhook the
> converter's antenna clip when I use the 40m antenna.
>
> Getting gutsy, I decided to see what would happen if I didn't
> unhook the converter and transmitted into the 40m antenna
> I tried 1/2 watt - no damage. I then tried different power levels
> finally ending up with a 15.2w CW carrier. No damage!
>
> I thought I'd blow my little converter. Anyone care to educate
> me as to why it didn't blow? Would it have blown up if I had
> hooked to the other side of the ladder line? Did the 2 five pole
> low pass filters save it?
> --
> 73 de Ken KGï¿½WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>

4698. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 18:42:27 UTC
From: dplatt@radagast.org
Message-ID: <11guokj4fm3bc3e@corp.supernews.com>
Source record: 71515

In article <11gungtfmn46a42@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>> I thought I'd blow my little converter. Anyone care to educate
>> me as to why it didn't blow? Would it have blown up if I had
>> hooked to the other side of the ladder line? Did the 2 five pole
>> low pass filters save it?

>My money's on the filter.

Yeah, there would be quite a lot of attenuation... five poles, and the
40-meter signal is about four octaves above the filter's nominal cutoff.

I thought that the converter might possibly include a set of
anti-parallel diodes between the filter and the SA604 to provide some
additional strong-signal protection, but I don't see any. So, it must
be that the filter attenuation was sufficient to keep the SA602 input
levels below the danger threshold. I seem to recall that these little
Gilbert-cell active mixers are reasonably rugged.

In looking at the schematic, I do see one thing which concerns me.
The filter is a pi configuration, with a .01 uF cap to ground at
either end. The cap at the antenna end of the filter (C4) would tend
to shunt a lot of the 40-meter signal to ground, with L1 blocking much
of the rest.

Seems to me that there could be two bad effects from having this
circuit shunted across the antenna when the 40-meter transmitter is
keyed up. For one thing, it could present a low impedance at its
attachment point (depending on the length of the feedline from the
upconverter to the attachment) and might adversely affect the
transmitter. For another thing, if there's a significant amount of RF
power getting to the front of the filter, it'll be shunted to ground
through C4 (a little monolithic ceramic by the look of it) and losses
in C4 might be sufficiently high to cook it and let all of its magic
smoke out.

If C4 does pop, the converter would still work, but there'd be one
less pole of low-pass filtration.

It might not be a bad idea for the OP to check C4 to see if it shows
signs of overheating, and perhaps consider adding another inductor
between the antenna terminal and the C4/L1 junction. This would
convert the filter from a two-Pi to a three-L configuration, and
increase its antenna-side impedance at HF.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4699. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 19:59:07 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <5c9d3$430f748c$97d55b95$13557@ALLTEL.NET>
Source record: 71516

As the filter represents a very high impedance above 500 Khz it should have protected the converter.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:fXHPe.5152$ct5.5069@fed1read04...
> I was looking for an antenna for my LF/VLF converter.
> The converter is from Jakson Harbor Press and uses a
> SA602 chip to convert 10-400 khz up to 14.010-14.400.
> It has 2 five pole L.P. filters (cutoff @ 500khz).
>
> For $12, it can't be beat. Anyways, I've got it running
> and everything that should be grounded is grounded. I've
> got a antenna lead with an alligator clip on it and I'm
> probing around, listening to WWVB. I try my 40m inverted
> V (fed with ladder line & coax). I get a pretty good signal
> on the "hot" side (the side that connects to the center of my
> coax) but also I get the same signal from the ground side so
> I left it there.
>
> The path for the 40m antenna is radio/coax/coax coil/ladderline/
> antenna. The converter is hooked to the junction where
> the coil transitions to the ladder line. It's just a pl-259 with one
> side of the ladder line going into the center pin and the other side
> soldered to the shell. I figure I'll just go out and unhook the
> converter's antenna clip when I use the 40m antenna.
>
> Getting gutsy, I decided to see what would happen if I didn't
> unhook the converter and transmitted into the 40m antenna
> I tried 1/2 watt - no damage. I then tried different power levels
> finally ending up with a 15.2w CW carrier. No damage!
>
> I thought I'd blow my little converter. Anyone care to educate
> me as to why it didn't blow? Would it have blown up if I had
> hooked to the other side of the ladder line? Did the 2 five pole
> low pass filters save it?
> --
> 73 de Ken KG WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>

4700. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 19:59:53 UTC
From: fmmck@aol.com
Message-ID: <fmmck-2608051559540001@ac9bfd13.ipt.aol.com>
Source record: 71384

In article <Z%CPe.196317$0f.178522@tornado.texas.rr.com>, "Al"
<aburzynski@nojunk.satx.rr.com> wrote:

> I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
> with it. Is there a newsgroup that would be proper to post such a question
> to?

Al-

There are some sharp guys here that may be able to help, but as you noted
it is a bit off topic.

Try sci.electronics.equipment and/or sci.electronics.repair.

73, Fred, K4DII

4701. posting 20050826

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 20:09:54 UTC
From: lyonors_v@40networks.com
Message-ID: <430f7712.rec.radio.amateur.antenna@mail2>
Source record: 71517

Under the Service's late-season frameworks proposal, hunting season lengths will be 60 days in both the Atlantic and Mississippi Flyways, 74 days in the Central Flyway, and 107 days in the Pacific Flyway.
"Really," Roland said. "Well, that's certainly a point in your favor, my dea r. Let's have a seat, shall we?"
"Why weren't you watching her?" Martin demanded. "This isn't my fault."
"But now we're paying two actresses for the same part. We have to have some economies of scale going on here."

4702. Yagi Stacking question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 20:27:28 UTC
From: DaveC <wntu4@yahoo.com>
Message-ID: <1125088048.029538.224550@o13g2000cwo.googlegroups.com>
Source record: 71518

Hi Group,
I have a Force 12 Tango 224 (4 el 2m, 2 el 6m, 2el 10m) triband yagi. I would like to increase my gain on 2m but dont want to shell out another almost $400 for another 224, and was considering constructing a two meter yagi to go on top. The question is, is this doable or must stacked yagi always be identical?
thank you!

4703. Re: Yagi Stacking question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 21:23:23 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <et1vg1t5is5m7i7d3huldge54sdtsdhgen@4ax.com>
Source record: 71519

On 26 Aug 2005 13:27:28 -0700, "DaveC" <wntu4@yahoo.com> wrote:

>Hi Group,
>I have a Force 12 Tango 224 (4 el 2m, 2 el 6m, 2el 10m) triband yagi. I
>would like to increase my gain on 2m but dont want to shell out another
>almost $400 for another 224, and was considering constructing a two
>meter yagi to go on top. The question is, is this doable or must
>stacked yagi always be identical?
>thank you!

Do you mean you're considering shelling out $400 to gain 3dB?

Walt, W2DU

4704. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 22:13:48 UTC
From: richardharrison@webtv.net
Message-ID: <667-430F941C-133@storefull-3255.bay.webtv.net>
Source record: 71521

Ken Bressler, KG0WX wrote:
"I was looking for an antenna for my LF/VLF converter."

Over the 10-400 KHz frequency range, there are propagation variations between night and day. A tuned loop antenna of the type often used in MW broadcast radios also works in other frequency ranges including your converter input.

The tuned loop is small in terms of wavelength, yet it can improve signal to noise ratio from its frequency selectivity and from its directional characteristics. It can be an air-core type or be wound on a ferrite rod.

I won`t speculate why ken hasn`t destroyed his converter with his HF transmitter.

Best regards, Richard Harrison, KB5WZI

4705. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 22:16:41 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1125094600.974714.220260@g47g2000cwa.googlegroups.com>
Source record: 71520

Roger wrote:
>It's too small to be of any use for FM broadcast band - diameter is only
>about 1/10 of the wavelength.
>Rather invest in a yagi or corner reflector for FM broadcast.

More like one wavelength: it's a bit over 3 meters. Still, as you
say, it's too small.

Elevation of the antenna will do more good than anything else, if
you're in a bit of a low spot. Pick an FM antenna with some gain
(Yagi, for example) and get it up as high as you reasonably can. It's
a lot easier to get an FM Yagi up a few tens of feet than it is to get
a 12 foot dish up that high!

Cheers,
Tom

4706. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 23:12:40 UTC
From: Dino Papas <kl0s@cox.net>
Message-ID: <kl0s-D174E1.19124026082005@news.east.cox.net>
Source record: 71522

Try "sci.electronics.equipment" -- lots of scope discussions there.

GL -- Dino KL0S/4

In article <11gun4gbs4dik60@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

> Rec.radio.amateur.homebrew would a good place for that question. And if
> there are other groups which are better yet, the folks there could
> direct you to them.
>
> Roy Lewallen, W7EL
>
> Al wrote:
> > I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
> > with it. Is there a newsgroup that would be proper to post such a question
> > to? Thanks.
> >
> > Al KA5JGV
> > San Antonio, TX
> >
> >

4707. Re: Yagi Stacking question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 23:44:59 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ou9vg1987p0sdjmg0aj30jp29o9t8n5p1e@4ax.com>
Source record: 71523

On 26 Aug 2005 13:27:28 -0700, "DaveC" <wntu4@yahoo.com> wrote:

>Hi Group,
>I have a Force 12 Tango 224 (4 el 2m, 2 el 6m, 2el 10m) triband yagi. I
>would like to increase my gain on 2m but dont want to shell out another
>almost $400 for another 224, and was considering constructing a two
>meter yagi to go on top. The question is, is this doable or must
>stacked yagi always be identical?
>thank you!

I can't find anything other than a price and the boom length for this
antenna on Force 12's web site. I can't imagine why they would sell
this in the first place. Well, actually I can imagine, but it's not
because it makes any sense performance wise.

Build any decent modern design Yagi for two meters and forget even
using the other thing.

4708. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 23:56:55 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <c%NPe.6170$ct5.3876@fed1read04>
Source record: 71524

"Fred W4JLE" <fred@w4jle.com> wrote in message
news:5c9d3$430f748c$97d55b95$13557@ALLTEL.NET...
> As the filter represents a very high impedance above 500 Khz it should
> have
> protected the converter.
>

Thanks everyone for the advice - I did check for overheating
and I did check to see if the addition of the converter changed
either SWR or performance of my dipole. Seems OK so far.

Thanks for the education!

73 de Ken KG WX - Flying Pigs #-1055
Elecraft K2 #4913

4709. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-26 23:57:44 UTC
From: Al <aburzynski@nojunk.satx.rr.com>
Message-ID: <Y%NPe.185172$gL1.156327@tornado.texas.rr.com>
Source record: 71525

Thanks for the replies, appreciated.
Al

"Dino Papas" <kl0s@cox.net> wrote in message
news:kl0s-D174E1.19124026082005@news.east.cox.net...
> Try "sci.electronics.equipment" -- lots of scope discussions there.
>
> GL -- Dino KL0S/4
>
> In article <11gun4gbs4dik60@corp.supernews.com>,
> Roy Lewallen <w7el@eznec.com> wrote:
>
>> Rec.radio.amateur.homebrew would a good place for that question. And if
>> there are other groups which are better yet, the folks there could
>> direct you to them.
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>> Roy Lewallen, W7EL
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>> Al wrote:
>> > I acquired a Tektronix 2430A digital oscilloscope and I'm having
>> > problems
>> > with it. Is there a newsgroup that would be proper to post such a
>> > question
>> > to? Thanks.
>> >
>> > Al KA5JGV
>> > San Antonio, TX
>> >
>> >

4710. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 00:35:03 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <430fb537$0$22210$39cecf19@news.twtelecom.net>
Source record: 71376

Pirate Radio wrote:

> well almost part 15.
>

Meaning not. Which is the important part.

tom
K0TAR

4711. Re: Yagi Stacking question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 00:45:01 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <430fb78e$0$32193$39cecf19@news.twtelecom.net>
Source record: 71377

DaveC wrote:

> Hi Group,
> I have a Force 12 Tango 224 (4 el 2m, 2 el 6m, 2el 10m) triband yagi. I
> would like to increase my gain on 2m but dont want to shell out another
> almost $400 for another 224, and was considering constructing a two
> meter yagi to go on top. The question is, is this doable or must
> stacked yagi always be identical?
> thank you!
>

I've been on 6,2 etc for a long time, and would never have spent that kind of money for that low gain. I would say you need to put up whatever you need for 10, a decent 12' long 4 element for 6 and whatever you can support on 2. And use 3 feedlines. You will be much better off.

If you need specifics, please feel free to email me, I have decent plans for 10, 6, 222, and 432. On 2 it's best just to buy, there is so much competition that it's not worth building.

tom
K0TAR

4712. R7000 question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 01:55:00 UTC
From: "jabrams4@optonline.net" <jabrams4@optonline.net>
Message-ID: <1125107700.691479.243330@o13g2000cwo.googlegroups.com>
Source record: 71378

I disassembled my CT-3 trap (20/30 meters) and found absolutely nothing wrong with it, no carbon, no wetness, no burns and electrically connected wires. However, is there supposed to be a capacitor in there, (this is the older one), just the plastic coil forms with the two rods and properly riveted wire ends. Is the capacitor formed by the spacing of the two inner tubes. I replaced the trap with the newer version (I think - no center dimples, but black screws in the center). Cushcraft tech support states the traps were redesigned and are not interchangable unless you change CT-2 also, and change the spacing between the traps. (so why didn't they rename them (CT-3R), so now that I put the new trap in place, I still cannot transmit on 20, 30, or 40 meters (infinite SWR on built in tuner. Of coursec the spacing between the traps changed, due to the redesign, so I guess I'll have to lower the antenna down again and reinstall the original trap. If not the trap, then is there anything band specific in the matching network?

4713. Re: R7000 question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 03:11:51 UTC
From: "M.M." <nobody@nowhere.com>
Message-ID: <XRQPe.6191$ct5.1164@fed1read04>
Source record: 71379

jabrams4@optonline.net wrote:
> I disassembled my CT-3 trap (20/30 meters) and found absolutely nothing
> wrong with it ... is there supposed to be a capacitor in
> there, ...

I believe the capacitor is the capacitance between the inner tube(s) and the outer tube. I found on mine that the connections at the ends of the coils in the traps corrode and then make a poor connection to the tubes. IIRC, they're riveted so I drilled out the rivets and replaced them with sheet metal screws. I also applied some anti oxidation paste meant for aluminum wiring...I got it at Lowe's. That seemed to help. You might check all aluminum-to-aluminum joints and and connections and clean them and apply the paste. It seems to help mine to do that periodically. You might also check inside the box. A close lightning strike a few years back wrought havoc on the matching box on mine.

The R7000 is definitely not Cushcraft's best piece of work. It has been a PITA ever since I bought it several years ago from the estate of a SK who belonged to our club. The 14AVQ I bought 35 years ago was a lot better antenna, as was the Butternut I had before the 7000.

You wouldn't happen to be the guy who bought the trap from K0FL, are you? I bought the box & other two traps...

73... Mark AA7TA

4714. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 03:29:57 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11gvnfe2otf9uda@corp.supernews.com>
Source record: 71380

Dear Dave Platt - AE6EO
You must be looking at the schematic of the converter. Where is the
schematic to be found?
Thanks, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Dave Platt" <dplatt@radagast.org> wrote in message
news:11guokj4fm3bc3e@corp.supernews.com...
> In article <11gungtfmn46a42@corp.supernews.com>,
> Roy Lewallen <w7el@eznec.com> wrote:
>
> >> I thought I'd blow my little converter. Anyone care to educate
> >> me as to why it didn't blow? Would it have blown up if I had
> >> hooked to the other side of the ladder line? Did the 2 five pole
> >> low pass filters save it?
>
> >My money's on the filter.
>
> Yeah, there would be quite a lot of attenuation... five poles, and the
> 40-meter signal is about four octaves above the filter's nominal cutoff.
>
> I thought that the converter might possibly include a set of
> anti-parallel diodes between the filter and the SA604 to provide some
> additional strong-signal protection, but I don't see any. So, it must
> be that the filter attenuation was sufficient to keep the SA602 input
> levels below the danger threshold. I seem to recall that these little
> Gilbert-cell active mixers are reasonably rugged.
>
> In looking at the schematic, I do see one thing which concerns me.
> The filter is a pi configuration, with a .01 uF cap to ground at
> either end. The cap at the antenna end of the filter (C4) would tend
> to shunt a lot of the 40-meter signal to ground, with L1 blocking much
> of the rest.
>
> Seems to me that there could be two bad effects from having this
> circuit shunted across the antenna when the 40-meter transmitter is
> keyed up. For one thing, it could present a low impedance at its
> attachment point (depending on the length of the feedline from the
> upconverter to the attachment) and might adversely affect the
> transmitter. For another thing, if there's a significant amount of RF
> power getting to the front of the filter, it'll be shunted to ground
> through C4 (a little monolithic ceramic by the look of it) and losses

> in C4 might be sufficiently high to cook it and let all of its magic
> smoke out.
>
> If C4 does pop, the converter would still work, but there'd be one
> less pole of low-pass filtration.
>
> It might not be a bad idea for the OP to check C4 to see if it shows
> signs of overheating, and perhaps consider adding another inductor
> between the antenna terminal and the C4/L1 junction. This would
> convert the filter from a two-Pi to a three-L configuration, and
> increase its antenna-side impedance at HF.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

4715. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 04:55:15 UTC
From: 998 cc <mycallsign@0sbcglobal0.net>
Message-ID: <TmSPe.1138$dw4.819@newssvr29.news.prodigy.net>
Source record: 71381

Al,

There is a Tektronix scope discussion group on Yahoo. Quite a bit of action
there.

Good luck.
Russ
W6OHM

"Al" <aburzynski@satx.rr.com> wrote in message
news:Z%CPe.196317$0f.178522@tornado.texas.rr.com...
> I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
> with it. Is there a newsgroup that would be proper to post such a question
> to? Thanks.
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> Al KA5JGV
> San Antonio, TX
>
>

4716. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 06:02:13 UTC
From: dplatt@radagast.org
Message-ID: <11h00f5kvhumtd5@corp.supernews.com>
Source record: 71382

>Dear Dave Platt - AE6EO
> You must be looking at the schematic of the converter. Where is the
>schematic to be found?

The manufacturer's page for this kit can be found at

http://jacksonharbor.home.att.net/lfconv.htm

You can download the manual and/or the schematic.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4717. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 06:45:00 UTC
From: dvd567@webtv.net
Message-ID: <23822-43100BEC-562@storefull-3277.bay.webtv.net>
Source record: 71383

ok guys the station is on the air i set the freq on 1700. and a very long wire ant . about 20 ft high over 100ft of wire damm took most of the day to set the post in i could only put in a big loop had my other pirate pal to help me take care out there in radio land from alabama radio

4718. Re: Stupid Qestion #362

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 13:15:05 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <depp02$gu2$1@ctb-nnrp2.saix.net>
Source record: 71385

"K7ITM" <k7itm@aol.com> wrote in message
news:1125094600.974714.220260@g47g2000cwa.googlegroups.com...
> Roger wrote:
>>It's too small to be of any use for FM broadcast band - diameter is only
>>about 1/10 of the wavelength.
>>Rather invest in a yagi or corner reflector for FM broadcast.
>
> More like one wavelength: it's a bit over 3 meters. Still, as you
> say, it's too small.
>
> Elevation of the antenna will do more good than anything else, if
> you're in a bit of a low spot. Pick an FM antenna with some gain
> (Yagi, for example) and get it up as high as you reasonably can. It's
> a lot easier to get an FM Yagi up a few tens of feet than it is to get
> a 12 foot dish up that high!
>
> Cheers,
> Tom

Oops! my mistake - I read inches instead of feet!
Not really used to ye olde english measuring system. Much happier in metric.

73
Roger ZR3RC

4719. modeling question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 13:30:52 UTC
From: FredSmith <nospam@nospam.net>
Message-ID: <4eq0h110kevu0a8efucjoobqvtg6s45tjd@4ax.com>
Source record: 71386

I have an old 2m log-yagi that I would like to model. The 5 driven elements have a gap in the center. When modeling, do I use the tip-to-tip distance or just the length of the tubing used? Is the zigzag feed 100 ohms?
Fred

4720. Re: R7000 question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 15:25:38 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43108630.8C3E1859@shaw.ca>
Source record: 71387

"M.M." wrote:
>
> jabrams4@optonline.net wrote:
> > I disassembled my CT-3 trap (20/30 meters) and found absolutely nothing
> > wrong with it ... is there supposed to be a capacitor in
> > there, ...
>
> I believe the capacitor is the capacitance between the inner tube(s) and
> the outer tube. I found on mine that the connections at the ends of the
> coils in the traps corrode and then make a poor connection to the tubes.
> IIRC, they're riveted so I drilled out the rivets and replaced them with
> sheet metal screws. I also applied some anti oxidation paste meant for
> aluminum wiring...I got it at Lowe's. That seemed to help. You might
> check all aluminum-to-aluminum joints and and connections and clean them
> and apply the paste. It seems to help mine to do that periodically. You
> might also check inside the box. A close lightning strike a few years
> back wrought havoc on the matching box on mine.
>
> The R7000 is definitely not Cushcraft's best piece of work. It has been
> a PITA ever since I bought it several years ago from the estate of a SK
> who belonged to our club. The 14AVQ I bought 35 years ago was a lot
> better antenna, as was the Butternut I had before the 7000.
>
> You wouldn't happen to be the guy who bought the trap from K0FL, are
> you? I bought the box & other two traps...
>
> 73... Mark AA7TA

Yes -- the capacitance between the inner rod and the outer form a variable
(or at least adjustable) cap, just like a 'piston trimmer'. This is used
to bring the trap to resonance. Before you spend
a lot make sure the connections at the end of the coils, as Mark suggested,
are good. This is a simple fix and will save a lot of money and grief.
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4721. Re: modeling question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 15:50:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fs21h1lltb2gseg906ipg1la25eub0ntcr@4ax.com>
Source record: 71388

On Sat, 27 Aug 2005 09:30:52 -0400, FredSmith <nospam@nospam.net>
wrote:

>I have an old 2m log-yagi that I would like to model. The 5 driven
>elements have a gap in the center. When modeling, do I use the
>tip-to-tip distance or just the length of the tubing used? Is the
>zigzag feed 100 ohms?

Hi Fred,

Model it exactly as it exists. Model the zig-zag too and it will sort
itself out.

73's
Richard Clark, KB7QHC

4722. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 16:18:48 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <363b2$4310926d$97d55b95$19061@ALLTEL.NET>
Source record: 71389

100 foot of wire on 1700Khz is not a correct length antenna. It is unlikely
that your "part 15" device is matched to the new antenna, and may be worse
than the legal antenna that came with it.

You did not mention what you were using as RF ground.

"Pirate Radio" <dvd567@webtv.net> wrote in message
news:23822-43100BEC-562@storefull-3277.bay.webtv.net...
> ok guys the station is on the air i set the freq on 1700. and a very
> long wire ant . about 20 ft high over 100ft of wire damm took most of
> the day to set the post in i could only put in a big loop had my other
> pirate pal to help me take care out there in radio land from alabama
> radio
>

4723. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 16:34:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5b51h15tdr2pibth3pcesrpnagikmnb4qf@4ax.com>
Source record: 71390

On Sat, 27 Aug 2005 12:18:48 -0400, "Fred W4JLE" <fred@w4jle.com>
wrote:
>100 foot of wire on 1700Khz is not a correct length antenna. It is unlikely
>that your "part 15" device is matched to the new antenna, and may be worse
>than the legal antenna that came with it.
Genetic self-thinning mechanism.
>You did not mention what you were using as RF ground.
Wait till he finds out about 120 wires each 250 feet long. ;-)

4724. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 16:45:24 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.27.16.45.22.534688@gmail.com>
Source record: 71391

PR:

Explore 1/2 wave antennas, you can load then with an inductance(s) to achieve the 1/2 wave electrical length, and they will work against a minimal counterpoise (chain fence, spare travel trailer you have parked around, metal shed, etc, etc....)

Long, long ago I ran a pirate am broadcast station using an old 50 ft. tv mast with loading coils and a heavily modified gamma match which used loading coils in its construction, was able to be heard for over 100 miles in the most favorable direction running 100+ watts though an old military transmitter... back then there were many pirate stations around...

John

On Sat, 27 Aug 2005 01:45:00 -0500, Pirate Radio wrote:

> ok guys the station is on the air i set the freq on 1700. and a very
> long wire ant . about 20 ft high over 100ft of wire damm took most of
> the day to set the post in i could only put in a big loop had my other
> pirate pal to help me take care out there in radio land from alabama
> radio

4725. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 18:37:36 UTC
From: dvd567@webtv.net
Message-ID: <428-4310B2F0-564@storefull-3271.bay.webtv.net>
Source record: 71392

i said over 100ft damm man chill out also i can use the ant for my
shortwave also so by

4726. FS: Diamond X510MA Dual band base antenna. (used)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 18:56:39 UTC
From: Penske PC27B <pottsladd13@nospam.yahoo.com>
Message-ID: <HH2Qe.140952$5N3.97480@bgtnsc05-news.ops.worldnet.att.net>
Source record: 71393
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

1-DiamondX510MA (UHF connector)

The Diamond X510NA was designed for strength and performance and is
pre-tuned to achieve maximum gain in both the 2m and 70cm amateur bands.
(2m: 3 x 5/8 and 70cm: 8 x 5/8). It has a 3 section fiberglass radome with
overlapping outer shells for added strength. It comes with stainless steel
mounting hardware and radials and strong-waterproof joint couplings.

X510NA Specifications
Frequency: 2M/70CM (144-148 and 440-450 MHz)
Gain: 8.3/11.7 dB
Power: 200 watts
Connector: N
Height: 17.2 feet
Weight: 5 Lbs.
Wind Rating: 90 MPH
We also carry the Diamond X510M which is the same antenna, but with an UHF
(SO239) connector instead of an N connector.

Universal Radio price $188.95.00 new.

$115.00 for pickup or meeting in Se, Pa. only.

pottsladd13@yahoo.com

4727. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 19:11:18 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <3b000$4310bb02$97d55b95$28944@ALLTEL.NET>
Source record: 71394

Hmmm! You come in asking for advise, and when given same you get defensive
and profane... Next time ask your question in
rec.idontwantanyonetodisagreewithwhatihavealreadydone.mymindisclosed

"Pirate Radio" <dvd567@webtv.net> wrote in message
news:428-4310B2F0-564@storefull-3271.bay.webtv.net...
> i said over 100ft damm man chill out also i can use the ant for my
> shortwave also so by
>

4728. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 20:00:40 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <deqgpaliq1@news.netins.net>
Source record: 71395

I played with it a bit and found that converting it to a T from an L
actually reduced the overall gain at 30 deg elevation and did not improve it
below that. I ended up with 73' on each side of the center for the T,
slightly inverted. In fact, I took the inverted L in one of my files
(already constructed) and just added the 2nd wire. I, did, of course shorten
the vertical section to the 42' that I have available.

It did eliminate the overhead radiation, but did not significantly improve
the low angle (which seems impossible), but I'll play some more. So far, it
looks like the Inverted L is the better choice, even for more power at lower
launch angles than the "T". (It is also easier to construct...for a quick
throw it up antenna, you only need a long piece of wire and an insulator at
the top, pullling as much wire as you can get to go vertical and stretching
out the rest.) Then, the real work comes, putting down a good radial field
before the frost.

Thanks for the tip. 73

...hasan, N0AN
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11gqhk3nkjda48e@corp.supernews.com...
> hasan schiers wrote:
>> Now that is interesting, Roy. I was going to put up a 160 m inverted L
>> this summer. I am limited to only being able to go up about 45 feet, so I
>> would need about another 90 feet horizontal.
>>
>> Are you suggesting that it might be a better arrangement to go up the 45'
>> and then put up the top "T"?
>
> It might be. You might benefit from the radiation from the horizontal
> portion of an L, and you might not. But if it's quite low, the radiation
> will be mostly straight up, and a fair amount will be expended warming up
> the ground. Neither will occur with a T.
>
>> If so, roughly how long should the top part of the T be (each side of
>> center) to get me to 160?
>
> That's just what antenna modeling programs are for! Dust off your EZNEC
> and you'll have the answer in minutes.
>
> >. . .
>
> Roy Lewallen, W7EL

4729. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 20:26:25 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <deqi9jlvg1@news.netins.net>
Source record: 71396

I found the error, I had to fix two conditions that I had changed in the model:

Copper wire (for loss)
Ground characteristics

Now that both antennas have the same conditions, the T has ever so slightly better gain at 20 degrees than the Inverted L. Not enough to bother with the increased complexity, and the input Z is now down around 5 ohms for the T and 8 ohms for the L.

Now, is it worth matching the 8 ohms up to 50 at the feedpoint, or just using the tuner in the shack to take care of it? (coax feed, LMR-400, about 50')

...hasan, N0AN

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11gun6qpp4tr193@corp.supernews.com...
> John Ferrell wrote:
> > . . .
>> I am a perpetual antenna student!
>
> And so are we all.
>
> Roy Lewallen, W7EL

4730. Re: what is the best filter to buy for my part 15 am.station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 20:57:39 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <d_2dnZ2dnZ3gaB3qnZ2dnU9Ojd6dnZ2dRVn-zZ2dnZ0@comcast.com>
Source record: 71397

A 187 foot vertical will suit your needs much better.

Add 120 300 foot long radials around the base of the antenna in a fanned
out configuration and we will know you are really serious!

Pirate Radio wrote:
> i said over 100ft damm man chill out also i can use the ant for my
> shortwave also so by
>

4731. Re: Blowing up a VLF converter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 21:22:46 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11h1mash41klh92@corp.supernews.com>
Source record: 71398

Dear Dave Platt - AE6EO:
Thanks. I should have thought of that.
Back when Navy VLF stations were still using CW, one could receive great practice by listening. I used a crystal oscillator and a simple filter to modulate the oscillator with VLF.
73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Dave Platt" <dplatt@radagast.org> wrote in message news:11h00f5kvhumtd5@corp.supernews.com...
> >Dear Dave Platt - AE6EO
> > You must be looking at the schematic of the converter. Where is the
> >schematic to be found?
>
> The manufacturer's page for this kit can be found at
>
> http://jacksonharbor.home.att.net/lfconv.htm
>
> You can download the manual and/or the schematic.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

4732. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 21:31:06 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4310DB9A.4060008@comcast.net>
Source record: 71399

Since you are talking about 50 Ohms I assume you are talking about a transmission line. If that is the case you should definitely match the feedline to antenna at the antenna feed point. Any attempt to match the feedline with a tuner in the shack only turns the whole feedline into part of the antenna system. By doing that you have lost any good work in building the antenna.

Dan

hasan schiers wrote:
> I found the error, I had to fix two conditions that I had changed in the
> model:
>
> Copper wire (for loss)
> Ground characteristics
>
> Now that both antennas have the same conditions, the T has ever so slightly
> better gain at 20 degrees than the Inverted L. Not enough to bother with the
> increased complexity, and the input Z is now down around 5 ohms for the T
> and 8 ohms for the L.
>
> Now, is it worth matching the 8 ohms up to 50 at the feedpoint, or just
> using the tuner in the shack to take care of it? (coax feed, LMR-400, about
> 50')
>
> ...hasan, N0AN
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11gun6qpp4tr193@corp.supernews.com...
>
>>John Ferrell wrote:
>>
>>>. . .
>>>I am a perpetual antenna student!
>>
>>And so are we all.
>>
>>Roy Lewallen, W7EL
>
>
>

4733. Re: Yagi Stacking question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 21:43:40 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <--qdnSYiEcnrQ43eRVn-og@comcast.com>
Source record: 71400

"DaveC" <wntu4@yahoo.com> wrote in message
news:1125088048.029538.224550@o13g2000cwo.googlegroups.com...
> Hi Group,
> I have a Force 12 Tango 224 (4 el 2m, 2 el 6m, 2el 10m) triband yagi. I
> would like to increase my gain on 2m but dont want to shell out another
> almost $400 for another 224, and was considering constructing a two
> meter yagi to go on top. The question is, is this doable or must
> stacked yagi always be identical?
> thank you!
>
Don't do it. For $100 - 150 you can buy a 2 meter antenna that will
outperform two stacked 224s. I have a CushCraft 10 element. People sneer at
CC, but it works well. If you operate 6 meter SSB at all, I would upgrade
that next. Unless you get something big, the 4 element HyGain is good,
supposedly better than the CushCraft 5 el. If you ever get a real tribander,
avoid anything that has "Junior"as part of the name.
.
Tam/WB2TT

4734. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 22:25:41 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <FL5Qe.6271$L77.3159@newssvr19.news.prodigy.com>
Source record: 71401

Al, might also contact Deane Kidd (W7TYR) - he has most manuals for
Tek scopes, ect, and his prices are quite reasonable. He may also
help in obtaining parts for them-- try: dektyr@teleport.com
Was purchaseing manager at Tek for years! as info-- Jim NN7K
> "Al" <aburzynski@satx.rr.com> wrote in message
> news:Z%CPe.196317$0f.178522@tornado.texas.rr.com...
>
>>I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
>>with it. Is there a newsgroup that would be proper to post such a question
>>to? Thanks.
>>
>>Al KA5JGV
>>San Antonio, TX
>>
>>
>
>
>

4735. Re: Yagi Stacking question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 22:37:54 UTC
From: Charlie <chas@aol.com>
Message-ID: <11h1qqpichh2d85@news.supernews.com>
Source record: 71402

Good advice on the 2M beam. I am so pleased with my M2 2M9SSB yagi at 90ft.
Photos on

www.ad5th.com and also on www.deepsouthnet.net

--

Charlie

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:--qdnSYiEcnrQ43eRVn-og@comcast.com...
>
> "DaveC" <wntu4@yahoo.com> wrote in message
> news:1125088048.029538.224550@o13g2000cwo.googlegroups.com...
>> Hi Group,
>> I have a Force 12 Tango 224 (4 el 2m, 2 el 6m, 2el 10m) triband yagi. I
>> would like to increase my gain on 2m but dont want to shell out another
>> almost $400 for another 224, and was considering constructing a two
>> meter yagi to go on top. The question is, is this doable or must
>> stacked yagi always be identical?
>> thank you!
>>
> Don't do it. For $100 - 150 you can buy a 2 meter antenna that will
> outperform two stacked 224s. I have a CushCraft 10 element. People sneer
> at CC, but it works well. If you operate 6 meter SSB at all, I would
> upgrade that next. Unless you get something big, the 4 element HyGain is
> good, supposedly better than the CushCraft 5 el. If you ever get a real
> tribander, avoid anything that has "Junior"as part of the name.
> .
> Tam/WB2TT
>

4736. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 23:16:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125184774_2081@spool6-east.superfeed.net>
Source record: 71403

dansawyeror wrote:
> Since you are talking about 50 Ohms I assume you are talking about a
> transmission line. If that is the case you should definitely match the
> feedline to antenna at the antenna feed point.

Why is it definite? What is the loss in 50 ft. of LMR-400 at the
frequency of interest when the SWR is 50/8 = 6.25:1?

> Any attempt to match the
> feedline with a tuner in the shack only turns the whole feedline into
> part of the antenna system.

Simply not true if the currents remain differentially balanced.
SWR doesn't cause feedline radiation.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4737. Re: Earn 12% daily of your investment!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 23:25:07 UTC
From: case_dude <case_dude@case_dude.com>
Message-ID: <4310F652.8CD6B472@case_dude.com>
Source record: 71404

I sent Mr. make12 an email,

I'll give him DOUBLE his money if he sends it to me.

Waiting for his wire transfer !!

4738. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 23:37:51 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <vst1h1pf4oor20uro46lugemf111nore8d@4ax.com>
Source record: 71405

On Sat, 27 Aug 2005 15:26:25 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>I found the error, I had to fix two conditions that I had changed in the
>model:
>
>Copper wire (for loss)
>Ground characteristics
>
>Now that both antennas have the same conditions, the T has ever so slightly
>better gain at 20 degrees than the Inverted L. Not enough to bother with the
>increased complexity, and the input Z is now down around 5 ohms for the T
>and 8 ohms for the L.
>
>Now, is it worth matching the 8 ohms up to 50 at the feedpoint, or just
>using the tuner in the shack to take care of it? (coax feed, LMR-400, about
>50')

If you would go here:

http://www.qsl.net/ac6la/tldetails.html

download the program and enter your load Z and 50' of LMR400 @ 3.5
MHz, you would immediately see the answer to your question.

If the 8 ohm is real (j=0) then the total loss is all of 0.4 dB and if
the line is 50' long, the resulting input Z is easily matched with low
loss.

4739. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 23:44:23 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <tau1h1t9bh8kaab3fjc7leurk5dp0ngg78@4ax.com>
Source record: 71406

On Sat, 27 Aug 2005 14:31:06 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Since you are talking about 50 Ohms I assume you are talking about a
>transmission line. If that is the case you should definitely match the feedline
>to antenna at the antenna feed point. Any attempt to match the feedline with a
>tuner in the shack only turns the whole feedline into part of the antenna
>system. By doing that you have lost any good work in building the antenna.

The feedline is -always- part of the antenna system. If it troubles
you to think about matching in the shack, just think of the
transmission line as part of a matching network located at the
feedpoint. In other words, the feedpoint network is comprised of 50'
of coax and coupla LCs in a box. This network then connects to the
transmitter through a non-resonant (flat) coax line.

4740. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-27 23:53:39 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4310FD03.50808@comcast.net>
Source record: 71407

Let's take the case of a 50 Ohm line and some mismatched antenna. The result is a combination other then 50 Ohm with most likely a zero complex component. All a tuner does is match 50 Ohm at the radio to the complex impedance presented to it at the source of the line.

That the only place with 50 Ohms and zero inductance in the line - antenna system. The combination of cable and antenna presents something other then R = 50 ohms 0 reactance and the the transmission line see discontinuities. The result is it radiates.

Dan

Cecil Moore wrote:
> dansawyeror wrote:
>
>> Since you are talking about 50 Ohms I assume you are talking about a
>> transmission line. If that is the case you should definitely match the
>> feedline to antenna at the antenna feed point.
>
>
> Why is it definite? What is the loss in 50 ft. of LMR-400 at the
> frequency of interest when the SWR is 50/8 = 6.25:1?
>
>> Any attempt to match the feedline with a tuner in the shack only turns
>> the whole feedline into part of the antenna system.
>
>
> Simply not true if the currents remain differentially balanced.
> SWR doesn't cause feedline radiation.

4741. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 00:49:42 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <XLqdnQ2Nr4K0l4zeRVn-jQ@comcast.com>
Source record: 71408

I am not sure what you mean by -always-. If you mean there is no such thing as a perfect coax line then your statement is true but does not add any real value. If you mean by -always- the feedline is a significant component in the antenna system then I would have to disagree. When operated at their design point coax transmission lines do not radiate and are not part of the radiating "antenna system".

Coax is designed to work in a specific environment as a transmission line. These transmission lines are designed not to radiate. When transmission lines are operated significantly outside their design range the radiate. Adding a tuner to one end only controls the characteristics at that point. It does not 'clean up' the mismatchs.

Dan

Wes Stewart wrote:
> On Sat, 27 Aug 2005 14:31:06 -0700, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>Since you are talking about 50 Ohms I assume you are talking about a
>>transmission line. If that is the case you should definitely match the feedline
>>to antenna at the antenna feed point. Any attempt to match the feedline with a
>>tuner in the shack only turns the whole feedline into part of the antenna
>>system. By doing that you have lost any good work in building the antenna.
>
>
> The feedline is -always- part of the antenna system. If it troubles
> you to think about matching in the shack, just think of the
> transmission line as part of a matching network located at the
> feedpoint. In other words, the feedpoint network is comprised of 50'
> of coax and coupla LCs in a box. This network then connects to the
> transmitter through a non-resonant (flat) coax line.
>
>

4742. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 02:53:16 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4311271d$0$32207$39cecf19@news.twtelecom.net>
Source record: 71409

Cecil Moore wrote:

>
> Why is it definite? What is the loss in 50 ft. of LMR-400 at the
> frequency of interest when the SWR is 50/8 = 6.25:1?
>

Ok, I need teaching here. Why would the loss change? The loss on the line is forced to what happens at the nominal 50 ohms doesn't it? The SWR shouldn't be able to change it unless the voltage limits are hit I would think. I need an explanation of why it wouldn't be so.

Thanks.

tom
K0TAR

4743. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 03:05:12 UTC
From: Dan Richardson <>
Message-ID: <87a2h1d90a6kp8j8t50cijuio5b8ba6h5a@4ax.com>
Source record: 71147

On Sat, 27 Aug 2005 17:49:42 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>I am not sure what you mean by -always-. If you mean there is no such thing as a
>perfect coax line then your statement is true but does not add any real value.
>If you mean by -always- the feedline is a significant component in the antenna
>system then I would have to disagree. When operated at their design point coax
>transmission lines do not radiate and are not part of the radiating "antenna
>system".

An antenna tuner or transmatch, if you prefer, doesn't radiate and is
part of an antenna system. the fact that a transmission line radiates
or not doesn't mean it isn't part of the system.

Danny, K6MHE

4744. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 03:29:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125199933_2275@spool6-east.superfeed.net>
Source record: 71410

dansawyeror wrote:
> The combination of cable and antenna presents something
> other then R = 50 ohms 0 reactance and the the transmission line see
> discontinuities. The result is it radiates.

If the currents are balanced, a 50 ohm transmission line seeing
something other than a 50 ohm load does NOT cause it to radiate.
If a 50 ohm unbalanced transmission line sees a 50 ohm balanced
load and common-mode currents flow on the outside of the coax,
it will usually result in radiation from the feedline. Simply
knowing the magnitude of the feedpoint impedance doesn't tell us
anything about feedline radiation.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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4745. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 03:40:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125200582_2279@spool6-east.superfeed.net>
Source record: 71411

Tom Ring wrote:

> Cecil Moore wrote:
>> Why is it definite? What is the loss in 50 ft. of LMR-400 at the
>> frequency of interest when the SWR is 50/8 = 6.25:1?
>>
> Ok, I need teaching here. Why would the loss change? The loss on the
> line is forced to what happens at the nominal 50 ohms doesn't it? The
> SWR shouldn't be able to change it unless the voltage limits are hit I
> would think. I need an explanation of why it wouldn't be so.

The loss specified on transmission line charts are usually matched-line
losses (SWR=1:1). When the SWR is higher than 1:1, additional losses
appear due to the higher SWR. There's a chart in my ARRL Handbook that
gives those additional losses. The matched-line loss for 50 ft. of LMR-400
at 3.5 MHz is about 0.1 dB. Wes calculated the total loss at 0.4 dB but I
think that must have been for 100 ft. of LMR-400 at 3.5 MHz with an
SWR of 6.25:1.

The higher SWR causes additional losses because the maximum current and
maximum voltage is higher for the same power delivered to the load than
for the matched-line case.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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4746. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 04:50:26 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <mobQe.158122$wr.16462@clgrps12>
Source record: 71412

> The coil measures about 60 uH. The antenna is elevated about 3 feet on a
> short tripod. The radials angle down the tripod legs and then out.
>
> The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
> form. It is centerloaded. I am looking at it accross the yard, it is about
> 6 inches long. It is would with about a point .5 pitch. Calculations for a
> 1:1 pitch predict a Q of about 450.
>
> Thanks,
> Dan

Dan, I have just run a NEC 2 model of your antenna. I have used the Sommerfeld/Norton ground, with average parameters of: Er = 13, and Sigma = 5 S/m. The top of the antenna is at 18 ft, and the base at 3 ft. I have twelve 40 ft radials, spaced at 30 deg, and within the limitations of NEC 2, placed them at 3" above ground. The first 5 ft of the radials drops from 3 ft to 3" at an angle of 45 deg. The monopole is center loaded with an inductor of Q = 450. The model has 640 (6") segments and takes 3 minutes to run (3.5 - 4.0 MHz in 50 kHz increments). What I notice is that I need 92 uH to resonate at 3.9 MHz. The input impedance is 12 ohms. I used a lumped element model for the inductor. I may try a physical helix later. These data do not seem to agree with your measured results. NEC 2, with the Sommerfeld/Norton ground solution, is supposed to give a reasonable result with wires at > 10^(-3) wavelengths above ground (Basic Antenna Modeling, Cebik p. 15-16 Nittany Scientific).

Gain and take-off angle are excellent, with max gain of -3 dBi at 28 deg. elevation. The lower 3 dB point (8 deg elevation) gain is -6.6 dBi. The NEC output file indicates an antenna efficiency of 54%. A free space model shows an input impedance of 8 ohms, so your ground losses are not significant (At least with my model).

Apart from adding horizontal wires, in "T" or inverted "L" fashion, I doubt any antenna you could put up would match its performance at distances over 500 miles.

With 100 ft of LMR 400 the additional loss is about 0.45 dB. I would be very interested to know if anybody has any ideas why my calculations appear to be different from the measurements.

Regards,

Frank

4747. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 05:07:02 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <qeg2h1ho1kcu3eg38uq474bg1l9b4jch71@4ax.com>
Source record: 71413

On Sat, 27 Aug 2005 17:49:42 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>I am not sure what you mean by -always-. If you mean there is no such thing as a
>perfect coax line then your statement is true but does not add any real value.
>If you mean by -always- the feedline is a significant component in the antenna
>system then I would have to disagree. When operated at their design point coax
>transmission lines do not radiate and are not part of the radiating "antenna
>system".

Well, now, we've just morphed "antenna system" to "radiating antenna
system."

But never mind, nothing's changed, you're still all wet. Of course
the feedline is a component in the antenna system regardless of
whether it radiates or not. BTW the line can be perfectly matched and
radiate or it can be highly mismatched and not radiate.

>
>Coax is designed to work in a specific environment as a transmission line. These
>transmission lines are designed not to radiate. When transmission lines are
>operated significantly outside their design range the(y) radiate.

Squeak squeak---squeak squeak---squeak squeak, there I just screwed a
tee connector on the end of a run of 50 ohm coax and on the tee I
screwed on two 50 ohm loads. The line is now terminated in 25 ohm
making the SWR 2:1. 'Splain to me how well this line, "operating
outside its design range", radiates.

If that's not "significantly" far enough outside the "design range"
then allow me to remove the loads, add two more tees and terminate
them with four 50 ohm loads, making the SWR 4:1. How well does the
line radiate now? Should I continue to 8:1 or are you convinced?

>Adding a tuner to
>one end only controls the characteristics at that point. It does not 'clean up'
>the mismatchs.

It can certainly "clean up" the mismatch at the input to the tuner,
which unless I've been deluding myself for 45 years or so, is the
point.

4748. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 05:12:01 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <6lh2h1p58928j0q4ski439ltnp67o3b3et@4ax.com>
Source record: 71414

On Sat, 27 Aug 2005 16:53:39 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Let's take the case of a 50 Ohm line and some mismatched antenna. The result is
>a combination other then 50 Ohm with most likely a zero complex component.

Surely you don't believe this do you? It is -much- more likely that
the impedance is reactive than not. At one (fundamental) frequency
the reactance is zero. At every other frequency it is reactive.

>All a
>tuner does is match 50 Ohm at the radio to the complex impedance presented to it
>at the source of the line.

Isn't that enough?

>
>That the only place with 50 Ohms and zero inductance in the line - antenna
>system. The combination of cable and antenna presents something other then R =
>50 ohms 0 reactance and the the transmission line see discontinuities. The
>result is it radiates.

Oh dear me.

4749. Re: Off topic request for info

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 06:05:09 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <jvcQe.10047$Us5.3549@fed1read02>
Source record: 71415

"Larry Benko" <lbenko@comcast.net> wrote in message
news:CqCdnVso65gby5TeRVn-qQ@comcast.com...
> As I am getting closer to retirement I have been thinking about buying a
> used spectrum analyzer since I will not have access to one at work.
> Unfortunately I am not familiar with all the models from say 5 to 15 years
> ago. Is there a good reference describing the different HP/Agilent,
> Tektronix, etc. models and which are good and which to avoid. A quick
> look on Ebay shows HP 4195A, 8561E, 8562A, 8562B, 8563E,8565A,
> 8568B,8569B, 8591E, 8593E, and 8594E. Similarly for Tektronix 492P, 494P,
> 495P, 495A, and 2755P. Is there some kind of a used buyers guide
> available. I understand spectrum analyzers at a moderate level and
> realize the differences between frequency range, external mixers, dynamic
> range, bandwidth etc. but finding the specs in a manner that makes them
> comparable is hard. Thanks for any advice.
>
> 73, Larry W0QE

I have an HP-141T, with a full set of the plug-ins. Buying one of these on eBay may be risky, since so many analyzers get abused by incompetent users. I would demand a right-of-return guaranty, and better yet, a personal interface with the seller.

Technically, the 141 system is great, top-of-the-line gear for 1975. <g> But it has no automation to guide and help you, no FFT, no digital output, no way to archive data other than a Polaroid camera hood. (Actually, you can take a fairly decent digital camera picture of the display. And yes, there is an interface for an X/Y analog plotter, but who has one of those plotters anyway?) You might want to get a 141 for it's analog quality, and then do a digital interface project on your own.

Don't select an HP-4195A for a spectrum analyzer. It doesn't have the full SA capabilities, although it triples as a SA, network analyzer and an impedance analyzer. You might find it much more suited to be a NA (up to 500 MHz) than anything else. It does have a 3.5" floppy, but the format is HP LIF, not DOS, so the data is not very transportable. It has an IEEE-488 I/O, so you can interface it to a PC. It's also god-awful heavy!

An 8562A is sweet, because it is also a fine SA, and it will go up to 18 GHz, and then will interface with the HP-11970(?) microwave harmonic mixer series, to let you go up to 96 GHz or so. It's also a lot more portable; you can carry one for over 100 meters before your fingers get numb.

I had a Tek 49x at one time; I never liked it. Subjective, true. I'd take one for free.

I always considered the HP-859x series to be the cheaper descendants of the 856x series. Still, nice instruments, but maybe not yet cheap enough for retirees.

The HP-8566B was HP's grand killer SA, with the 8568 being the lesser capable sister. If you could find an 8566B at a price you could pay, that would be great. The pinnacle for 1987. You can carry an 856x about two feet.

Be aware that all of the instruments we have been talking about are full of proprietary modules that are no longer in the parts pipeline. The CRT's are a real problem; the only place to get another one is from a parts unit. (OK, maybe somebody has some new ones, in the box, right next to their pile of unbuilt Heathkits!) Although the HP units were all top commercial quality, something will eventually fail, and Radio Shack won't be much help. OTOH, a non-abused HP could easily outlive the average retiree. <g>

--
Ed
WB6WSN
El Cajon, CA USA

4750. Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 11:08:07 UTC
From: jonel@glenavon1.demon.co.uk
Message-ID: <c963h15004nq6salpmckavrmmmulvpmfnq@4ax.com>
Source record: 71416

II have recently purchased a satellite receiver (ASR WS201) and I am having little success in getting it connected. I don't know if this is the correct place to seek such help, but I'm giving it a try anyway.

I am located in East Anglia in the United Kingdom. According to the satellite location map I should be pointing south and low. I'm having no success in getting any signal at all and I would like to at least decide whether it is my equipment (in which case is it the antenna or the set) or is it a problem with the area I am in.

I have no experience with satellite stuff and I would be grateful for any pointers about simple tests that could be carried out, or at least where I could go for help. I have tried the home page for the AMI website but there are problems with that also (www.amisb.co)

Thanks

John L

4751. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 12:02:03 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <des93s$i6u$1@news.netins.net>
Source record: 71417

Thanks Wes...done...btw the antenna is for 160 meters, not 80m, so the loss is even less. It doesn't look to me like it's worth doing anything more than tuning out the mismatch in the shack. 73

...hasan, N0AN

4752. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 12:07:50 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <des9en$ij4$1@news.netins.net>
Source record: 71418

Dan,
I appreciate your reply, but it is filled with misinformation. Consider reading some reference materials. The errors have been discussed in other responses to your post.

I don't mean to insult you for trying to help, but the information you provided is so incorrect, that I couldn't let it pass. I hope no one attempts to make use of what you said...it will only compound the error.

I asked simply is it worth it? (in terms of loss). Wes had the calculator software that showed the loss is insignificant, so it saves the work/complexity at the base of the antenna. Radiation from the feedline is not a function of mismatch. I'm surprised Reg didn't go apoplectic over that one.

The tuner in the shack will do the job nicely.

...hasan, N0AN
"dansawyeror" <dansawyeror@comcast.net> wrote in message news:4310DB9A.4060008@comcast.net...
> Since you are talking about 50 Ohms I assume you are talking about a
> transmission line. If that is the case you should definitely match the
> feedline to antenna at the antenna feed point. Any attempt to match the
> feedline with a tuner in the shack only turns the whole feedline into part
> of the antenna system. By doing that you have lost any good work in
> building the antenna.
>
> Dan
>
> hasan schiers wrote:
>> I found the error, I had to fix two conditions that I had changed in the
>> model:
>>
>> Copper wire (for loss)
>> Ground characteristics
>>
>> Now that both antennas have the same conditions, the T has ever so
>> slightly better gain at 20 degrees than the Inverted L. Not enough to
>> bother with the increased complexity, and the input Z is now down around
>> 5 ohms for the T and 8 ohms for the L.
>>
>> Now, is it worth matching the 8 ohms up to 50 at the feedpoint, or just
>> using the tuner in the shack to take care of it? (coax feed, LMR-400,
>> about 50')
>>

>> ...hasan, N0AN
>>
>> "Roy Lewallen" <w7el@eznec.com> wrote in message
>> news:11gun6qpp4tr193@corp.supernews.com...
>>
>>>John Ferrell wrote:
>>>
>>>>. . .
>>>>I am a perpetual antenna student!
>>>
>>>And so are we all.
>>>
>>>Roy Lewallen, W7EL
>>
>>

4753. Kenwood 870s and a Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 12:57:06 UTC
From: Bill Smith <newsgroup@swronline.com>
Message-ID: <CwiQe.3764$fP.2551@trndny08>
Source record: 71419

Hello all,
My station consisted of an Icom 706MKIIG, the AH-4 tuner and a 360ft loop at 60 feet. The tuner is mounted at the loop on the roof with about 100ft of coax to the rig.

I just purchased a Kenwood TS-870s with built in tuner. I'm running it on the same feedline and thru the unpowered AH-4. The built in tuner works fine and all seems good.

Question: I want to remove the AH-4 to go with my 706 for mobile/remote use. Would a 1:1 balun work in place of the AH-4 to connect the loop to the feedline? I work 15 thru 80 most of the time.

73
Smitty -kb3gun

4754. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 13:27:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125235778_967@spool6-east.superfeed.net>
Source record: 71420

Tom Ring wrote:

> Cecil Moore wrote:
>> Why is it definite? What is the loss in 50 ft. of LMR-400 at the
>> frequency of interest when the SWR is 50/8 = 6.25:1?
>>
> Ok, I need teaching here. Why would the loss change? The loss on the
> line is forced to what happens at the nominal 50 ohms doesn't it? The
> SWR shouldn't be able to change it unless the voltage limits are hit I
> would think. I need an explanation of why it wouldn't be so.

For the same amount of power delivered to the load, transmission
line losses increase with increasing SWR. For a Z0-matched system:
(PLoad = Pfor - Pref) As the load mismatch is increased, energy
reflected from the mismatched load increases and is re-reflected
back toward the load at the tuner Z0-match point. As the load
mismatch is increased, more energy is stored in the transmission
line during steady-state. This is indirect proof that reflected
energy waves actually exist.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4755. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 13:27:32 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <8ZiQe.199485$9A2.146092@edtnps89>
Source record: 71421

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1125199933_2275@spool6-east.superfeed.net...
> dansawyeror wrote:
>> The combination of cable and antenna presents something other then R = 50
>> ohms 0 reactance and the the transmission line see discontinuities. The
>> result is it radiates.
>
> If the currents are balanced, a 50 ohm transmission line seeing
> something other than a 50 ohm load does NOT cause it to radiate.
> If a 50 ohm unbalanced transmission line sees a 50 ohm balanced
> load and common-mode currents flow on the outside of the coax,
> it will usually result in radiation from the feedline. Simply
> knowing the magnitude of the feedpoint impedance doesn't tell us
> anything about feedline radiation.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Even grossly mismatched open wire transmission line does not radiate
significantly. For example a 66 ft length of 3" spaced, open wire line,
shorted at one end, radiates only 4 - 5% of the input power. 95% is
dissipated in the conductor losses.

73,

Frank

4756. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 13:43:29 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <5cjQe.199489$9A2.79007@edtnps89>
Source record: 71422

<jonel@glenavon1.demon.co.uk> wrote in message
news:c963h15004nq6salpmckavrmmmulvpmfnq@4ax.com...
> II have recently purchased a satellite receiver (ASR WS201) and I am
> having little success in getting it connected. I don't know if this is
> the correct place to seek such help, but I'm giving it a try anyway.
>
> I am located in East Anglia in the United Kingdom. According to the
> satellite location map I should be pointing south and low. I'm having
> no success in getting any signal at all and I would like to at least
> decide whether it is my equipment (in which case is it the antenna or
> the set) or is it a problem with the area I am in.
>
> I have no experience with satellite stuff and I would be grateful for
> any pointers about simple tests that could be carried out, or at least
> where I could go for help. I have tried the home page for the AMI
> website but there are problems with that also (www.amisb.co)
>
> Thanks
>
> John L

Satellite dish aiming is very critical. You must know the precise position of the desired satellite, and then calculate the required azimuth and elevation for the dish. More than a degree or two off, and you will get nothing. Try http://www.satsig.net/ssazelm.htm There are many other sites, just Google "satellite dish aiming".

Regards,

Frank

4757. Re: Jetstream 2015F coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 13:45:39 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <rqf3h1duaul0t3g60ba0mqllbtsk7a2fv6@4ax.com>
Source record: 71423

On Tue, 23 Aug 2005 09:13:36 GMT, Mike M. <notme@invalid.email.net>
wrote:

>Has anyone here tried the Jetstream 2015F coax cable from R&L? Is it
>any good for a 50 ft run at 440 MHz?

I have using this coax for several years. It is a flexible 9913 still
with the spiral air gap. Great stuff. Beats the price of the 9913F
which is foam type with the low velocity factor.
K4WYS

4758. Re: OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 14:21:13 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <tLjQe.41$la.2@newssvr22.news.prodigy.net>
Source record: 71424

Yahoo Groups have TekScopes@yahoogroups.com..
All you need to do is subribe and you'll get answers..

--

73
Hank WD5JFR
"Al" <aburzynski@nojunk.satx.rr.com> wrote in message
news:Z%CPe.196317$0f.178522@tornado.texas.rr.com...
>I acquired a Tektronix 2430A digital oscilloscope and I'm having problems
>with it. Is there a newsgroup that would be proper to post such a question
>to? Thanks.
>
> Al KA5JGV
> San Antonio, TX
>
>
>

4759. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 14:34:56 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <V8udnXPoDqwOVozeRVn-uQ@comcast.com>
Source record: 71425

Frank,

Thank you. Is there any way you can forward the saved parameters. This is a screwdriver antenna, I will remeasure the coil and double check.

My modeling of the free space antenna showed about 4 Ohms but it was with a much simpler program. It was that program I used to measure Q.

Thanks,
Dan

Frank wrote:
>>The coil measures about 60 uH. The antenna is elevated about 3 feet on a
>>short tripod. The radials angle down the tripod legs and then out.
>>
>>The coil is about 4 inchs in diameter, number 12, wound on a fiberglass
>>form. It is centerloaded. I am looking at it accross the yard, it is about
>>6 inches long. It is would with about a point .5 pitch. Calculations for a
>>1:1 pitch predict a Q of about 450.
>>
>>Thanks,
>>Dan
>
>
> Dan, I have just run a NEC 2 model of your antenna. I have used the
> Sommerfeld/Norton ground, with average parameters of: Er = 13, and Sigma =
> 5 S/m. The top of the antenna is at 18 ft, and the base at 3 ft. I have
> twelve 40 ft radials, spaced at 30 deg, and within the limitations of NEC 2,
> placed them at 3" above ground. The first 5 ft of the radials drops from 3
> ft to 3" at an angle of 45 deg. The monopole is center loaded with an
> inductor of Q = 450. The model has 640 (6") segments and takes 3 minutes to
> run (3.5 - 4.0 MHz in 50 kHz increments). What I notice is that I need 92
> uH to resonate at 3.9 MHz. The input impedance is 12 ohms. I used a lumped
> element model for the inductor. I may try a physical helix later. These
> data do not seem to agree with your measured results. NEC 2, with the
> Sommerfeld/Norton ground solution, is supposed to give a reasonable result
> with wires at > 10^(-3) wavelengths above ground (Basic Antenna Modeling,
> Cebik p. 15-16 Nittany Scientific).
>
> Gain and take-off angle are excellent, with max gain of -3 dBi at 28 deg.
> elevation. The lower 3 dB point (8 deg elevation) gain is -6.6 dBi. The
> NEC output file indicates an antenna efficiency of 54%. A free space model
> shows an input impedance of 8 ohms, so your ground losses are not
> significant (At least with my model).
>

> Apart from adding horizontal wires, in "T" or inverted "L" fashion, I doubt
> any antenna you could put up would match its performance at distances over
> 500 miles.
>
> With 100 ft of LMR 400 the additional loss is about 0.45 dB. I would be very
> interested to know if anybody has any ideas why my calculations appear to be
> different from the measurements.
>
> Regards,
>
> Frank
>
>

4760. FS : high voltage ceramic insulators for wire antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 15:06:22 UTC
From: Rightrik <gaggiorNOSPAM@tin.it>
Message-ID: <3ne27fF12j5nU1@individual.net>
Source record: 71326

Hello, i have 40 nice ceramic insulators for wire antennas to sell.

They are about 16 cm long, have two holes to let wire pass through (about 5 mm max wire diameter allowed).

They have been made to work at HIGH voltages.

Photo here :

http://www.arifidenza.it/Public/data/ik5wqo/200582813302_P8280001-640x480.jpg

They're on Ebay here : http://search.ebay.it/_W0QQsassZrightrik

(they're in Italy, buyer pay spedition expenses)

Thank you,
73 de Riccardo IK5WQO

4761. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 15:13:22 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <7gk3h1prlsll0ldqc7vtonl7mhobi6r6ni@4ax.com>
Source record: 71327

On Sun, 28 Aug 2005 07:02:03 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>Thanks Wes...done...btw the antenna is for 160 meters, not 80m,

Sorry, I was just thinking about the subject of the thread, not
reading what you wrote.

>so the loss is even less. It doesn't look to me like it's worth doing anything more than
>tuning out the mismatch in the shack.

Exactly. As I said earlier, if it makes it easier on the someone's
(not you, you get it) conscience or ego they can think of the
transmission line as a bunch of distributed L and Cs (with a little R
thrown in) that are part of a tuner.

When they get this "tuner" to show 50 +j0, then they can call the
length of line between the "tuner" and the transmitter, the
"transmission line."

In your case, you have a low-loss line, so the "R" part is low and the
system is efficient.

4762. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 15:22:43 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <7FkQe.218016$HI.111534@edtnps84>
Source record: 71328

> Frank,
>
> Thank you. Is there any way you can forward the saved parameters. This is
> a screwdriver antenna, I will remeasure the coil and double check.
>
> My modeling of the free space antenna showed about 4 Ohms but it was with
> a much simpler program. It was that program I used to measure Q.
>
> Thanks,
> Dan

Hi Dan,

I have run the program to determine the precise resonance. The parameters are as follows: Inductor 89.3 uH, and resonant at 3.92 MHz. I can send you a zipped NEC output text file. It is about 190 kB. Also the NEC code I used. You can plug in the appropriate data into an Excel spread sheet. If you need any specific graphical output I can it as a JPEG file. I used the default input source of 1 V peak, which accounts for the low power values in the output file. The E-field data is far field, normalized to 1 meter.

The inductor is described as a lumped element, complex impedance, of 4.9 + j2200 ohms. I arrived at this value based on your Q of 450, and just played around with the imaginary value to achieve resonance within the 75 meter band.

Let me know if I can send the above information to the address shown in your posting.

Regards,

Frank

4763. Re: R7000 question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 16:02:23 UTC
From: "jabrams4@optonline.net" <jabrams4@optonline.net>
Message-ID: <1125244943.593937.202650@g44g2000cwa.googlegroups.com>
Source record: 71329

Yes, I did buy the CT-3 trap from him. I would assume its the newer model (I have no way of knowing, except that it had black screws in the center of the trap instead of the dimples). Mine didn't come with the protective boot, but I had one from by 80 meter add-on I'll never install. Replaced the CT-3 and still have infinite SWR on 20/30 and 40 meters. Maybe its a problem with the auto-antenna tuner in the rig (Kenwood 570D) and not the antenna. There is different spacing when using the new traps 6" and 18" between CT-1 and 2 and CT-2 and 3, from the original 16" and 16" spacing. As mentioned, old trap was completely dry with no burn marks, loose connections or carbon buildup. Everybody mentionms drilling out the dimples, I just tapped the trap on the stoop pushing the forms inward, and just pulled them out. reinstalling them would probably require an awl is hard nail to exactly line up the endpoints.
According to the criptic Email from Cushcraft tech support, the traps are proabably not interchangable, unless a tuner is used? They were willing to sell me their R7000TFK for $112+ which proably contains a new CT-2 and new CT-3 and some tubing.

4764. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 16:38:52 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4311E89C.5070208@comcast.net>
Source record: 71330

Wes,

As a starter, look at this site:

http://www.cbtricks.com/~ab7if/coax/coax.htm

When a transmission line is terminated in it's characteristic impedance there is no voltage or current reflection from the line. The electromagnetic fields continue to flow into the termination as if the line were infinitely long. When a mismatch of impedance occurs, reflected waves will be produced and they will interact with the incident waves. The total voltage and current on the line are no longer the result of a single traveling wave from the source to the load. Instead, it is the algebraic sum of two waves traveling in opposite directions. This interaction results in what is known as standing waves. The waves remain in fixed positions along the line while they vary in amplitude and polarity. A wave of any shape can be transmitted along the line without any change of waveshape or magnitude. Looking at the gif below, we see a line driven with a sine wave generator, terminated with a short circuit to maximize the reflection.

My first claim is a tuner at the source does not materially improve what is happening in the coax. That is a tuner does not recreate the condition above where the coax is functioning as a properly matched and terminated transmission line. All the tuner does is match the impedance at the coax source back to some known, usually 50 Ohm, value.

My second claim is when the mismatch condition at the coax destination, i.e. antenna that may result in significant radiation from the coax itself.

Dan

Wes Stewart wrote:
> On Sat, 27 Aug 2005 16:53:39 -0700, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>Let's take the case of a 50 Ohm line and some mismatched antenna. The result is
>>a combination other then 50 Ohm with most likely a zero complex component.
>
>
> Surely you don't believe this do you? It is -much- more likely that
> the impedance is reactive than not. At one (fundamental) frequency
> the reactance is zero. At every other frequency it is reactive.
>
>
>>All a
>>tuner does is match 50 Ohm at the radio to the complex impedance presented to it

>>at the source of the line.
>
>
> Isn't that enough?
>
>
>>That the only place with 50 Ohms and zero inductance in the line - antenna
>>system. The combination of cable and antenna presents something other then R =
>>50 ohms 0 reactance and the the transmission line see discontinuities. The
>>result is it radiates.
>
>
> Oh dear me.
>

4765. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 16:39:24 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4311E8BC.1090802@comcast.net>
Source record: 71331

Wes,

As a starter, look at this site:

http://www.cbtricks.com/~ab7if/coax/coax.htm

When a transmission line is terminated in it's characteristic impedance there is no voltage or current reflection from the line. The electromagnetic fields continue to flow into the termination as if the line were infinitely long. When a mismatch of impedance occurs, reflected waves will be produced and they will interact with the incident waves. The total voltage and current on the line are no longer the result of a single traveling wave from the source to the load. Instead, it is the algebraic sum of two waves traveling in opposite directions. This interaction results in what is known as standing waves. The waves remain in fixed positions along the line while they vary in amplitude and polarity. A wave of any shape can be transmitted along the line without any change of waveshape or magnitude. Looking at the gif below, we see a line driven with a sine wave generator, terminated with a short circuit to maximize the reflection.

My first claim is a tuner at the source does not materially improve what is happening in the coax. That is a tuner does not recreate the condition above where the coax is functioning as a properly matched and terminated transmission line. All the tuner does is match the impedance at the coax source back to some known, usually 50 Ohm, value.

My second claim is when the mismatch condition at the coax destination, i.e. antenna that may result in significant radiation from the coax itself.

Dan

Wes Stewart wrote:
> On Sat, 27 Aug 2005 16:53:39 -0700, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>Let's take the case of a 50 Ohm line and some mismatched antenna. The result is
>>a combination other then 50 Ohm with most likely a zero complex component.
>
>
> Surely you don't believe this do you? It is -much- more likely that
> the impedance is reactive than not. At one (fundamental) frequency
> the reactance is zero. At every other frequency it is reactive.
>
>
>>All a
>>tuner does is match 50 Ohm at the radio to the complex impedance presented to it

>>at the source of the line.
>
>
> Isn't that enough?
>
>
>>That the only place with 50 Ohms and zero inductance in the line - antenna
>>system. The combination of cable and antenna presents something other then R =
>>50 ohms 0 reactance and the the transmission line see discontinuities. The
>>result is it radiates.
>
>
> Oh dear me.
>

4766. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 17:17:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ddr3h1djvnu73uaei89j9739mefaipgbg4@4ax.com>
Source record: 71332

On Sun, 28 Aug 2005 12:08:07 +0100, jonel@glenavon1.demon.co.uk wrote:

>I am located in East Anglia in the United Kingdom. According to the
>satellite location map I should be pointing south and low. I'm having
>no success in getting any signal at all and I would like to at least
>decide whether it is my equipment (in which case is it the antenna or
>the set) or is it a problem with the area I am in.

Hi John,

These things take a lot of patience and knowing where the satellite is
in the sky. "South and low" is not very distinctive, and there in the
UK you are not expected to aim at the horizon, but rather some 35-45
degrees above (which would be low, compared to directly overhead).
>
>I have no experience with satellite stuff and I would be grateful for
>any pointers about simple tests that could be carried out, or at least
>where I could go for help. I have tried the home page for the AMI
>website but there are problems with that also (www.amisb.co)
Perhaps because you are missing the full URL:
http://www.amisb.com/
rather, you need to go to:
http://www.worldspace.com/coveragemaps/antennaguide.html
an notice what they mean by low and South East instead (towards the
Sudan-Uganda-Congo).

If there is anything in the way, you won't get your signal.

73's
Richard Clark, KB7QHC

4767. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 17:40:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <iks3h15kv6ahis9qgbdbr5mmafqh5o1r27@4ax.com>
Source record: 71333

On Sun, 28 Aug 2005 09:38:52 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>My first claim is a tuner at the source does not materially improve what is
>happening in the coax. That is a tuner does not recreate the condition above
>where the coax is functioning as a properly matched and terminated transmission
>line. All the tuner does is match the impedance at the coax source back to some
>known, usually 50 Ohm, value.

Hi Dan,

As true as that may be, the results run the gamut from trivial to
considerable as has been already discussed in this thread.

>My second claim is when the mismatch condition at the coax destination, i.e.
>antenna that may result in significant radiation from the coax itself.

This mismatch could arise for any number of reasons, and not all
contribute to radiation from the coax. Wes has already demonstrated a
deliberate mismatch at the end of a cable that exhibits absolutely no
radiation from the coax. This is because he has contrived to contain
the fields from emerging and coupling to the outside of the coax
shield. You should be aware that the shield does support currents on
the inside and outside that are wholly unaffected by each other -
except at the drive point where the two conduction paths are joined.

When you drive a dipole with a coax, the exterior conductive path of
the shield (a separate circuit from the interior conductive path of
that same shield) is in parallel with one arm of the dipole. This
means you have a third radiator that has a length and termination that
is undefined. It is THAT radiator that both causes a higher SWR AND
radiation that is not a normal condition for an otherwise tuned
antenna. Given that the length of the line's external conductive
path, and its termination is largely undefined (unless you take great
care to both measure and characterize such issues), the occurrence of
mismatch and radiation is highly variable. Thus, anecdotal accounts
of antennas being poor or good when they are driven by a simple coax
are suspect (barring the reporter also supplying the conditions of the
external path).

To eliminate the effects of this third path, a choke is added to the
drive point. The purpose of the choke is to add impedance to this
path to reduce Common Mode current. Common Mode current is the
current that flows due to an unbalanced system (the unanticipated
third radiator does that in spades). It flows in two wire
transmission lines too when the unbalance occurs for other reasons

(and those are plentiful as well).

73's
Richard Clark, KB7QHC

4768. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 18:07:41 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <N3nQe.8490$qg2.8174@trnddc05>
Source record: 71334

<jonel@glenavon1.demon.co.uk> wrote in message
news:c963h15004nq6salpmckavrmmmulvpmfnq@4ax.com...
> II have recently purchased a satellite receiver (ASR WS201) and I am
> having little success in getting it connected. I don't know if this is
> the correct place to seek such help, but I'm giving it a try anyway.
>
> I am located in East Anglia in the United Kingdom. According to the
> satellite location map I should be pointing south and low. I'm having
> no success in getting any signal at all and I would like to at least
> decide whether it is my equipment (in which case is it the antenna or
> the set) or is it a problem with the area I am in.
>
> I have no experience with satellite stuff and I would be grateful for
> any pointers about simple tests that could be carried out, or at least
> where I could go for help. I have tried the home page for the AMI
> website but there are problems with that also (www.amisb.co)
>
> Thanks
>
> John L

Hi John L

I suppose you know that the satellite is above central Africa. That means that the antenna needs to be able to have a clear view of that point about 22,300 miles above the equator in Central Africa. The antenna with that receiver is not extreemely directional. Set the antenna in the South East angle in the Low position.

Did you Google on Worldspace?

Jerry

4769. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 18:40:24 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <j804h1lab7gb64gvmpfslsfmkmjttdcnsl@4ax.com>
Source record: 71335

On Sun, 28 Aug 2005 09:39:24 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Wes,
>
>As a starter, look at this site:
>
>http://www.cbtricks.com/~ab7if/coax/coax.htm

snip
>
>My second claim is when the mismatch condition at the coax destination, i.e.
>antenna that may result in significant radiation from the coax itself.
>
>Dan

Well, Dan, responding to your second claim first, consider either of
two situations,
1) center-fed dipole, fed with open wire line, or
2) a center fed dipole, fed with coax with an efficient choke balun.
In either of these situations an impedance mismatch between the
feedline and the dipole will NOT cause radiation from the feedline.

And taking a look at the web site you referenced above, the writer is
professing to clear some misconceptions concerning transmission line
technique. However, although he does present some straight dope, he
is also further spreading some misconceptions concerning SWR.

As he stated, there is a lot of misunderstanding concerning the effect
of line length on the amplitude of the standing wave, but he continued
the incorrect information on the subject, rather than presenting a
correction.

The fact is, Dan, that with lossless line the SWR is NOT affected by
the line length--it remains constant along the entire length of the
line. And further, the ONLY affect of line length on SWR is line
attenuation, which causes the SWR at the input to be less than that at
the load.

If you believe everything you read in that reference, you've been
duped.

Walt, W2DU

4770. Super Antennas MP-1 EZNEC model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 18:45:43 UTC
From: Jochen Schaeuble <psionic.nospam@psionic.de>
Message-ID: <op.sv8eeh2gzxmi5j@localhost>
Source record: 71336

Hi,
I think of buying a MP-1 from Super Antennas for balcony operation (I live in a small appartment with no possibility for a full blown dipole). I'm quite new to antenna modelling so I need some help for this one. Anyone can help me with this model? How do I model the coil used? Are there any already existing EZNEC files available for this antenna?

Thanks in advance.

vy 73 de Jochen, DG1PSI

4771. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 19:06:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125256130_1193@spool6-east.superfeed.net>
Source record: 71337

dansawyeror wrote:
> My first claim is a tuner at the source does not materially improve what
> is happening in the coax. That is a tuner does not recreate the
> condition above where the coax is functioning as a properly matched and
> terminated transmission line. All the tuner does is match the impedance
> at the coax source back to some known, usually 50 Ohm, value.

No matter what the voltages and currents are, if they are balanced,
the transmission line won't radiate (much). If the SWR is 100:1 and
the currents are balanced, the transmission won't radiate (much). If
the SWR is 1:1 and the currents are unbalanced, the feedline is likely
to radiate.

> My second claim is when the mismatch condition at the coax destination,
> i.e. antenna that may result in significant radiation from the coax itself.

Please understand it is not impedance mismatches that cause radiation
from the feedline. It is unbalance in the feedline currents that causes
feedline radiation. Current imbalance and impedance mismatches are not
necessarily related.

Current imbalance in a matched system can cause feedline radiation.

Impedance mismatches can exist with negligible feedline radiation.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4772. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 19:09:50 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <fh14h1pg3nh2ugkq37hbh7kkgkfu78ds5c@4ax.com>
Source record: 71338

On Sun, 28 Aug 2005 09:38:52 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Wes,
>
>As a starter, look at this site:
>
>http://www.cbtricks.com/~ab7if/coax/coax.htm
>
>When a transmission line is terminated in it's characteristic impedance there is
>no voltage or current reflection from the line. The electromagnetic fields
>continue to flow into the termination as if the line were infinitely long. When
>a mismatch of impedance occurs, reflected waves will be produced and they will
>interact with the incident waves. The total voltage and current on the line are
>no longer the result of a single traveling wave from the source to the load.
>Instead, it is the algebraic sum of two waves traveling in opposite directions.
>This interaction results in what is known as standing waves. The waves remain in
>fixed positions along the line while they vary in amplitude and polarity. A wave
>of any shape can be transmitted along the line without any change of waveshape
>or magnitude. Looking at the gif below, we see a line driven with a sine wave
>generator, terminated with a short circuit to maximize the reflection.

I am certainly not the sharpest guy in this forum, however, I have
been a ham for almost 47 years and I've been working with antennas
from the beginning. I retired after 33+ years in the aerospace
business where a good deal of my work involved rf design,
measurements, failure analysis and the writing of specifications for
rf/microwave devices and assemblies. I regret having to even bring
this up, but it seems that you're willing accept something written on
a CB radio site as fact while ignoring anything you hear in this forum
from professionals in the field. Why is that?

>
>My first claim is a tuner at the source does not materially improve what is
>happening in the coax.

Please show me the place where I claimed anything different.

>That is a tuner does not recreate the condition above
>where the coax is functioning as a properly
>matched and terminated transmission
>line. All the tuner does is match the impedance at the coax source back to some
>known, usually 50 Ohm, value.

Please show me the place where I claimed anything different.

>
>My second claim is when the mismatch condition at the coax destination, i.e.
>antenna that may result in significant radiation from the coax itself.

This I've already proved to be wrong by example. Let me try one last time. Since antennas are reciprocal, you don't even need a transmitter. Connect any length of coax to your receiver input. Terminate the far end with a dummy load (50 ohm resistor). Tune around the bands. What do you hear? Nothing, if the coax is any good and the receiver and dummy load are well shielded. So I suppose this proves one of your claims, a matched line doesn't radiate.

Remove the dummy load and replace it with a short circuit. What do you hear now on this totally mismatched line that by your reckoning should radiate like crazy?

4773. Re:(SOLD) Diamond X510MA Dual band base antenna. (used)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 20:44:10 UTC
From: Penske PC27B <pottsladd13@nospam.yahoo.com>
Message-ID: <umpQe.144462$5N3.111777@bgtnsc05-news.ops.worldnet.att.net>
Source record: 71339
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

Antenna is sold, thanks!!

4774. Re: Super Antennas MP-1 EZNEC model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-28 21:07:25 UTC
From: jgboyles@aol.com
Message-ID: <1125263245.442787.236350@f14g2000cwb.googlegroups.com>
Source record: 71340

Jochen Schaeuble wrote:
> Hi,
> I think of buying a MP-1 from Super Antennas for balcony operation (I live
> in a small appartment with no possibility for a full blown dipole). I'm
> quite new to antenna modelling so I need some help for this one. Anyone
> can help me with this model? How do I model the coil used? Are there any
> already existing EZNEC files available for this antenna?
>
> Thanks in advance.
>
> vy 73 de Jochen, DG1PSI

Jochen, The MP-1 is a short loaded vertical. The EZNEC file
"Vertical over real ground" will come close if you modify it to model
the MP-1.
The coil is modeled as a "load" placed at the proper spot on the
vertical. The inductive load should be large enough to cancel the Xc
the short vertical represents.
Eznec will tell you many parameters about the antenna. It will not
directly tell you that it will be poor on 80 and 40 meters due to
ground losses, and losses in the antenna. It should do OK on 20 meters
up.
Gary N4AST

4775. Diamond W8010 any ideas?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 01:29:01 UTC
From: News Xtra <jdekker@xtra.co.nz>
Message-ID: <yxtQe.6709$iM2.667969@news.xtra.co.nz>
Source record: 71341

I'm thinking of the Diamond W8010 multiband with traps.
Has anybody tried one or can anyone give an idea for the performance of a multiband dipole with traps.
It is about 20 meters across the top and has 2 traps each side. It does 80-10 meters.
Regards,
John ZL2TTM

4776. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 02:29:49 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <KtydndKpMdqA7o_eRVn-qQ@comcast.com>
Source record: 71342

Frank,

My e-mail address is above. Thank you for all your help. I will try this.

Dan

Frank wrote:
>>Frank,
>>
>>Thank you. Is there any way you can forward the saved parameters. This is
>>a screwdriver antenna, I will remeasure the coil and double check.
>>
>>My modeling of the free space antenna showed about 4 Ohms but it was with
>>a much simpler program. It was that program I used to measure Q.
>>
>>Thanks,
>>Dan
>
>
> Hi Dan,
>
> I have run the program to determine the precise resonance. The parameters
> are as follows: Inductor 89.3 uH, and resonant at 3.92 MHz. I can send you
> a zipped NEC output text file. It is about 190 kB. Also the NEC code I
> used. You can plug in the appropriate data into an Excel spread sheet. If
> you need any specific graphical output I can it as a JPEG file. I used the
> default input source of 1 V peak, which accounts for the low power values in
> the output file. The E-field data is far field, normalized to 1 meter.
>
> The inductor is described as a lumped element, complex impedance, of 4.9 +
> j2200 ohms. I arrived at this value based on your Q of 450, and just played
> around with the imaginary value to achieve resonance within the 75 meter
> band.
>
> Let me know if I can send the above information to the address shown in your
> posting.
>
> Regards,
>
> Frank
>
>

4777. Re: Kenwood 870s and a Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 03:04:59 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <vgu4h1tgp8l8fchvq98anvpsncdq21lr2f@4ax.com>
Source record: 71343

On Sun, 28 Aug 2005 12:57:06 GMT, "Bill Smith"
<newsgroup@swronline.com> wrote:

>Hello all,
>My station consisted of an Icom 706MKIIG, the AH-4 tuner and a 360ft loop at
>60 feet. The tuner is mounted at the loop on the roof with about 100ft of
>coax to the rig.
>
>I just purchased a Kenwood TS-870s with built in tuner. I'm running it on
>the same feedline and thru the unpowered AH-4. The built in tuner works fine
>and all seems good.
>
>Question: I want to remove the AH-4 to go with my 706 for mobile/remote use.
>Would a 1:1 balun work in place of the AH-4 to connect the loop to the
>feedline? I work 15 thru 80 most of the time.

Smitty,

I have more questions than answers. The AH4 is designed to match a
single wire (whip) antenna working against ground as best I can
figure.

http://home.comcast.net/~hamlakemn//ah4/ah4.htm

You say your loop is at 60' but the tuner is on the roof at the loop.
Is the roof 60' high?

Is this a real closed loop? If so how is the tuner connected?

With more loop parameters known, maybe it could be modeled to
determine whether a balun will function okay and whether the mismatch
on the coax will be acceptable.

What kind of coax are you using?

The '870 is a fine radio...got one myself.

4778. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 03:51:41 UTC
From: richardharrison@webtv.net
Message-ID: <1064-4312864D-955@storefull-3257.bay.webtv.net>
Source record: 71344

Somone wrote:
"My second claim is when the mismatch condition at the coax destination,
i.e. antenna that may result in significant radiation from the coax
itself."

Responses already show this is untrue.

Radiation from the external coax surface comes from launching a signal
on that surface. Good coax does not let signals penetrate its shield.

A mismatch between a transmission line and its attached antenna affects
both transmitting and receiving from the antenna, but does not launch
signals on the outside of the coax.

A mismatched transmitting antenna does not accept all available power
incident upon it and reflects a portion back toward the sender depending
on how bad the mismatch is.

A mismatched receiving antenna has a source resistance (radiation
resistance) and may also have reactance. A conjugate match is needed for
maximum power transfer to the feedline. The mismatched antenna will
either not extract all the power available to it in the passing wave or
else reradiate more than 50%, (with full extraction, the minimum
possible reradiation is with a perfectly matched antenna). Consider a
short circuit across the antenna feedpoint. 100% of the energy extracted
by the antenna is reradiated. Consider an open circuit at the antenna
feedpoint. Little if any power is extracted from the wave sweeping the
receiving antenna.

The most power is received by a receiving antenna when its radiation
resistance is matched to the Zo of the feedline. In this case, 50% is
the best possible received carrier power in the receiver input. Nobody
tells the antenna it is a receiving antenna. It is a conductor carrying
a current, never mind where it came from, so it is going to radiate.
When matched resistances are involved in source (radiation resistance)
and load (Zo matched), the power is split 50-50 between source and load.
The radiation resistance, is the source resistance for the receiver
load, and it represents the reradiation from the reeiving atenna.

50% of the received power accepted by the load is the best possible
performance. Mismatch means less. Either less power accepted by the
antenna or more power reradiated by by the antenna.

A transmatch can make the feedline appear as a matching load at the
antenna junction for receiving. If matched for both transmitting and
receiving, all available power will be transmitted and received.

Best regards, Richard Harrison, KB5WZI

4779. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 06:07:41 UTC
From: richardharrison@webtv.net
Message-ID: <666-4312A62D-947@storefull-3255.bay.webtv.net>
Source record: 71345

John L. wrote:
"I am in East Anglia in the United Kingdom."

I was in Scotland a few weeks ago. I noticed many satellite dishes and was surprised at how low the elevation angles were. Most were nearly set horizontally. Some had dish feeds which were actually depressed below the horizontal. I concluded that their vertical beamwidts were deep enough to work anyway. I assumed that the users actually were getting a picture. I suspect that in Edinburg, you can start by setting the vertical angle with a carpenter`s level. It works that way with most terrestrial microwaves. In East Anglia, I suppose you are farther south and need some vertical elevation angle on your dish, but not much.

You can get your bearings with a fix on the north star, some accurate maps, and information on where the bird is parked in orbit.

Best regards, Richard Harrison, KB5WZI

4780. Re: Jetstream 2015F coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 07:36:12 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <37e5h1pfua85vcr8ce9ltp944gs47684na@4ax.com>
Source record: 71346

On Sun, 28 Aug 2005 09:45:39 -0400, Sonny Hood <wrhood@cox.net> wrotF:

>On Tue, 23 Aug 2005 09:13:36 GMT, Mike M. <notme@invalid.email.net>
>wrote:
>
>>Has anyone here tried the Jetstream 2015F coax cable from R&L? Is it
>>any good for a 50 ft run at 440 MHz?
>
>I have using this coax for several years. It is a flexible 9913 still
>with the spiral air gap. Great stuff. Beats the price of the 9913F
>which is foam type with the low velocity factor.
>K4WYS

Thanks for the info. I think what you have is the 2015. What I ordered
was the 2015F which has the foam insulation and the stranded center
conductor. I've heard that the spiral air gap can have condensation
problems.

Mike

4781. Re: Kenwood 870s and a Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 11:49:35 UTC
From: Bill Smith <newsgroup@swronline.com>
Message-ID: <jDCQe.1584$wE1.27@trndny01>
Source record: 71347

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:vgu4h1tgp8l8fchvq98anvpsncdq21lr2f@4ax.com...
> On Sun, 28 Aug 2005 12:57:06 GMT, "Bill Smith"
> <newsgroup@swronline.com> wrote:
>
>>Hello all,
>>My station consisted of an Icom 706MKIIG, the AH-4 tuner and a 360ft loop
>>at
>>60 feet. The tuner is mounted at the loop on the roof with about 100ft of
>>coax to the rig.
>>
>>I just purchased a Kenwood TS-870s with built in tuner. I'm running it on
>>the same feedline and thru the unpowered AH-4. The built in tuner works
>>fine
>>and all seems good.
>>
>>Question: I want to remove the AH-4 to go with my 706 for mobile/remote
>>use.
>>Would a 1:1 balun work in place of the AH-4 to connect the loop to the
>>feedline? I work 15 thru 80 most of the time.
>
>
> Smitty,
>
> I have more questions than answers. The AH4 is designed to match a
> single wire (whip) antenna working against ground as best I can
> figure.
>
> http://home.comcast.net/~hamlakemn//ah4/ah4.htm
>
> You say your loop is at 60' but the tuner is on the roof at the loop.
> Is the roof 60' high?
>
> Is this a real closed loop? If so how is the tuner connected?
>
> With more loop parameters known, maybe it could be modeled to
> determine whether a balun will function okay and whether the mismatch
> on the coax will be acceptable.
>
> What kind of coax are you using?
>
> The '870 is a fine radio...got one myself.

Hello Wes,
The loop is setup on a large, flat roof of a local business, atop 15 ft masts. Building is a 4 story brick & wood building (built in1907). No steel. One end of the loop is attached to the output (+) of the AH4, other end of the loop is attached to the ground lug of the AH4. Coax is an RG-8U (I think Belden.) from the AH4 to the radio. You are correct about the AH4 being designed to tune a wire against ground, but this loop works fine. In the past, I also rigged up a dipole to the ah4 (450ohm ladder line (+ & -) to the dipole feedpoint) and it worked well too. It's a very nice tuner (coupler).

73
Smitty -kb3gun

4782. channel master 9512 control /rotor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 13:06:49 UTC
From: amc <amcREMOVETHIS@look.ca>
Message-ID: <36ydnemZ4IYylY7eRVn-ug@look.ca>
Source record: 71348

just got this from someone and i want to test it. 3 screws on each unit.
want to hook it up without frying it.
both are numbered 123, so that easy enough. but want to know whats going on
electrically, is this just a reversing switch, I'm very very novice.

is there any free schematics out there, or can someone give me some basic
level input. I'm very green.

Ihave a 9513 unit and I guessed at it for another antenna.

4783. Re: channel master 9512 control /rotor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 13:34:18 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ch36h1hn07gpo2871airpnhsq40r4msov8@4ax.com>
Source record: 71349

In my experience, three terminal rotators are wired wth common, ac one
direction, ac the other direction. The position is timed from one end.
I think the ac volts are around 14 volts.

de W8CCW

On Mon, 29 Aug 2005 09:06:49 -0400, "amc" <amcREMOVETHIS@look.ca>
wrote:

>just got this from someone and i want to test it. 3 screws on each unit.
>want to hook it up without frying it.
>both are numbered 123, so that easy enough. but want to know whats going on
>electrically, is this just a reversing switch, I'm very very novice.
>
>is there any free schematics out there, or can someone give me some basic
>level input. I'm very green.
>
>Ihave a 9513 unit and I guessed at it for another antenna.
>

4784. Re: channel master 9512 control /rotor question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 15:09:43 UTC
From: W8LNA <W8LNA@arrl.net>
Message-ID: <XyFQe.5682$cg.2735@news02.roc.ny>
Source record: 71350

amc wrote:
> just got this from someone and i want to test it. 3 screws on each unit.
> want to hook it up without frying it.
> both are numbered 123, so that easy enough. but want to know whats going on
> electrically, is this just a reversing switch, I'm very very novice.

No, what happens is one of the terminals, say #1, is common to two (or more) windings in the motor, the other two terminals, 2 and 3, are individual connections to the other end of the individual windings. To turn the rotor AC is applied to, say, terminal 2 and through a capacitor to 3 using 1 as the return. To change direction AC is applied to 3 directly and through the capacitor to 2. The value of the capacitor and the AC voltage depends on the motor, I used a C-M motor with a Kenpro KR-400 control box and other than not having any position indication it worked just fine. I've since upgraded the motor, the box puts out about 18 VAC to drive the motor, the capacitor is about 30 uF, 60 VDC. I don't remember the terminal numbers versus coils.

>
> is there any free schematics out there, or can someone give me some basic
> level input. I'm very green.

Try
http://bama.sbc.edu/
it's real slow right now, possibly because of the hurricane.

There's also
http://www.mods.dk/
look for 'Manuals' links in the brands' pages. My Kenpro control box manual is available under 'Other' manuals.

4785. sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 15:17:01 UTC
From: Paul Hinman <paul.hinman@shaw.ca>
Message-ID: <NFFQe.330061$5V4.212744@pd7tw3no>
Source record: 71351

I came across an interesting antenna the other day on the web. It called for four radials for each band that one would want to use it on. In order to protect the lawn mower I would like to bury the radials. If I use insulated wires for the radials can I bury multiple radials for different frequencies in the same trench. I would rent a small trencher like they use for underground power and utility feeds, make four trenches and drop in the radials, then cover them.

Thanx for any responses.

Paul VE6LDS

4786. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 15:50:23 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <t3b6h11vebbcr3v49e19fq6rg8gkn773p7@4ax.com>
Source record: 71352

On Mon, 29 Aug 2005 15:17:01 GMT, Paul Hinman <paul.hinman@shaw.ca>
wrote:

>I came across an interesting antenna the other day on the web. It
>called for four radials for each band that one would want to use it on.
>In order to protect the lawn mower I would like to bury the radials. If
>I use insulated wires for the radials can I bury multiple radials for
>different frequencies in the same trench. I would rent a small trencher
>like they use for underground power and utility feeds, make four
>trenches and drop in the radials, then cover them.

Your subject line raises thoughts of many people separated by a common
language.

The usual reason for using four radials of certain length is that they
are elevated and resonant. Multiple radials of different length are
often operated in parallel because it is thought that there is then a
set that is optimum for each band.

Anyone who has tried to operate multiple dipoles in parallel will know
that without heroic effort this is a false premise, nevertheless, the
practice continues.

When you bury them, the radials are no longer resonant (at least where
you think they are) and trying to use multiple sets is an even less
good idea. You should use lay as many radials as possible. A rule of
thumb would be to make them at least as long as the radiator is high.

4787. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 16:09:26 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <11h6cn5fhs3b8e9@corp.supernews.com>
Source record: 71353

Well Paul

Paul Hinman wrote:

> I came across an interesting antenna the other day on the web. It
> called for four radials for each band that one would want to use it
> on. In order to protect the lawn mower I would like to bury the
> radials. If I use insulated wires for the radials can I bury multiple
> radials for different frequencies in the same trench. I would rent a
> small trencher like they use for underground power and utility feeds,
> make four trenches and drop in the radials, then cover them.
>
> Thanx for any responses.
>
> Paul VE6LDS
>

Based on practical experience with elevated 4 square vertical arrays on 40 meters, I suspect that might be a 'grave' misteak! Chortle..

I've noticed that with the elevated 4 square arrays, actual connections between elements very much change the elements in the way they present to the feed lines. I'm talking about completely grounded vertical elements and feeding each element with gamma match techniques. Note that in the common 4 square vertical low band array configuration, the spacing between the towers is roughly a quarter wave apart. That defined, it's obvious that you can proceed away from any given vertical toward another in the aray and .. you either reach or can reach it with the tip of a radial from another element. Thus you have the possibility of actually connecting the elevated radial to an opposite element's actual tower. Remember, the towers are all grounded. Your feed operation as to the gamma match section is already bonded to the vertical tower at that elevation point for the elevated radials.

Not surprisingly, I've found that connection of these between tower spaces with a common wire between the towers on the elevated 4 square model DOES change the parameters required for gamma match dimensions and tuning a lot more than you might expect. Further, if you position the radials so that they extend so they don't 'aim' toward the opposite poles and toward the center, that also changes the practical match operations of the gamma match sections markedly as well.

Further, even if you cross connect the between towers chort-line distance. obiously extending the radials directly opposite away from the poles, and then move toward the center where the relay switch box is located, you'll find another interesting fact about this there.

Simply connecting those cross-array wires together at the relay box site also has major implications on the tuning of the gamma match sections for the towers. Recall that the 'connection' to the towers, in this case, also is the shield of the coax cable matching section which connects each element of the 4 square to the relay box at the middle of the array. If I just open up the ends of each radial from each element there where it reaches that center pole holding the relay box, I get very noticable changes on the whole array and matching differences.

I can see and verify it with my MFJ antenna analyzer. I don't have the drive and desire to spend the time doing the exact match distortion paper work to define this for publication or whatever. Part of the reason to use the gamma match technique was to minimize setup time for these arrays, at the same time I solidly ground each tower for lightning protection. That last is particularly important for elevated radial vertical arrays in my very person experience at my W5WQN low band site.

Based on the above, and the understanding that any given wire laying next to another wire, in any location free space or whatever, is mutually affected by the other wire, I'd think what you propose is likely to lead to a ..

grave error! ;)

Mike Luther - W5WQN

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

4788. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 16:29:49 UTC
From: Dave <dave@telnet.com>
Message-ID: <1KGQe.74365$084.63249@attbi_s22>
Source record: 71354

"Paul Hinman" <paul.hinman@shaw.ca> wrote in message
news:NFFQe.330061$5V4.212744@pd7tw3no...
I came across an interesting antenna the other day on the web. It called for four radials for each band that one would want to use it on. In order to protect the lawn mower I would like to bury the radials. If I use insulated wires for the radials can I bury multiple radials for different frequencies in the same trench. I would rent a small trencher like they use for underground power and utility feeds, make four trenches and drop in the radials, then cover them.

Why would you want to spend the money and rent a trencher? Use it for a toy. If you have a lawn edger (if not borrow one) use that and cut a 2 to 4 inch gruve/s in your yard and lay your radial/s in them. In about a week they will fill in by themselves and you will never notice them. You don't need to bury them as deep as a trencher would dig.

Thanx for any responses.

Paul VE6LDS

4789. What's in a dual band 2m/70cm antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 17:40:55 UTC
From: Doug McLaren <dougmc@frenzy.com>
Message-ID: <HMHQe.213209$gL1.115362@tornado.texas.rr.com>
Source record: 71355

I've got an HT and it's got a basic dual band 144 MHz/440 MHz antenna. It's about a meter long, which would be correct for the 144 MHz band.

What makes this antenna different from a 144 MHz (only) antenna?

Are there typically two conductors inside, with one 1 meter and one 35 cm? Or are the antennas typically just identical to a 144 MHz (only) antenna, and it just works at 3/4 wavelength at 70 cm?

As I understand it, a 3/4 wavelength whip should work reasonably well, being resonant and having a similar impedance to a 1/4 wavelength whip. Is this correct?

To be more to the point -- I've got a Kenwood D700A in my car. It has a built in duplexer, and one antenna jack. I've hooked it up to a 2 meter antenna on my roof, and it seems to work fine, both on 2m and 70cm. But I'm wondering if I'm risking ruining it ...

(I haven't put a SWR meter on it yet. I probably should.)

And what's so magic about 5/8 wave antennas? It's not even resonant, so obviously a matching network of some sort will be needed, but why 5/8? Why not 11/16? Or 3/4? Or something else?

--
Doug McLaren, dougmc@frenzy.com, AD5RH
`What's the use of happiness? It can't buy you money.' -Henny Youngman

4790. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 17:41:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <devhbd$hg3$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71356

"Paul Hinman" <paul.hinman@shaw.ca> wrote in message
news:NFFQe.330061$5V4.212744@pd7tw3no...
> I came across an interesting antenna the other day on the web. It
> called for four radials for each band that one would want to use it
on.
> In order to protect the lawn mower I would like to bury the radials.
If
> I use insulated wires for the radials can I bury multiple radials
for
> different frequencies in the same trench. I would rent a small
trencher
> like they use for underground power and utility feeds, make four
> trenches and drop in the radials, then cover them.
>
==========
Paul,

When buried, even only shallow buried, radials become almost
non-resonant and their exact lengths, depth and thickness don't matter
very much.

What matters is the number of radials. The more radials there are the
better. However there is a law of diminishing returns and after 10 or
20 have been laid, depending on soil resistivity, not much happens.

But to bury a number of radials close to each other in a common trench
constitutes only ONE thick radial. With 4 trenches you have only 4
radials. They behave better when wires are uniformly, radially
distributed.

No need to buy a digging machine. Just lay some uniformly distributed,
shallow-buried wires, not necessarily all of the same length.

First try about 8 wires. If after trying out the system you feel
dissatisfied you can easily lay some more.

Reg, G4FGQ

4791. Re: Super Antennas MP-1 EZNEC model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 18:59:22 UTC
From: Jochen Schaeuble <psionic.nospam@psionic.de>
Message-ID: <op.sv99o8i1zxmi5j@localhost>
Source record: 71357

Hello Gary,
thanks for your comments. I guess this will get me started.

vy 73 de Jochen, DG1PSI

On Sun, 28 Aug 2005 23:07:25 +0200, <jgboyles@aol.com> wrote:

>
> Jochen Schaeuble wrote:
>> Hi,
>> I think of buying a MP-1 from Super Antennas for balcony operation (I
>> live
>> in a small appartment with no possibility for a full blown dipole). I'm
>> quite new to antenna modelling so I need some help for this one. Anyone
>> can help me with this model? How do I model the coil used? Are there any
>> already existing EZNEC files available for this antenna?
>>
>> Thanks in advance.
>>
>> vy 73 de Jochen, DG1PSI
> Jochen, The MP-1 is a short loaded vertical. The EZNEC file
> "Vertical over real ground" will come close if you modify it to model
> the MP-1.
> The coil is modeled as a "load" placed at the proper spot on the
> vertical. The inductive load should be large enough to cancel the Xc
> the short vertical represents.
> Eznec will tell you many parameters about the antenna. It will not
> directly tell you that it will be poor on 80 and 40 meters due to
> ground losses, and losses in the antenna. It should do OK on 20 meters
> up.
> Gary N4AST

4792. Re: What's in a dual band 2m/70cm antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 19:31:41 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <xoJQe.1816$mH.33@fed1read07>
Source record: 71358

To answer one question "And what's so magic about 5/8 wave antennas? It's not even resonant,
> so obviously a matching network of some sort will be needed, but why
> 5/8? Why not 11/16? Or 3/4? Or something else?"

So why would anyone use a 5/8 wave antenna if they have to go through all that extra work? After all, a ground plane antenna provides a nicer match. There are a couple of answers. The first is GAIN. The computer shows that the antenna (mounted 1 foot above ground) has a gain of about 1.5 dBd higher than a dipole's gain (also mounted 1 foot above ground.)

The second reason you may want to use the 5/8 wave vertical is to obtain a lower angle of radiation. A half wave antenna's radiation peak angle is 20 degrees. You'll find that the 5/8 wave antenna's angle of radiation is just 16 degrees making it an even better dx antenna.

See URL: http://ac3l.com/five8th.htm

SOME MORE INFO
About Mobile Dual-Band 2m/440 -- Roger K6XQ advises - Can I build a 2m/440mhz 5/8 mobile antenna? A 1/4 wave on 144 MHz is 3/4 wave on 440. The SWR is usually acceptable on the 3rd harmonic, although that is partly due to the increased feeder losses on 440. But SWR is not the whole story. A 3/4 wave radiator on 440 has radiation lobes that send some of your signal at high angles, not toward the horizon where you probably want it. This is usually not so severe to make the antenna unusable, and may be considered a reasonable compromise for the dual band coverage. A 5/8 wave antenna on 144 MHz is 15/8 waves on 440. If you do the simple math you will see that on 440 you will have almost a 2 wavelength antenna, which is becoming what we call a "long wire" on the HF bands. As you probably know, a long wire radiates with multiple lobes, the largest of which are toward the ends of the wire. In other words, most of your signal will be radiated up toward the sky. The reason for the coil in commercial dual band antennas is to phase the antenna currents so you actually end up with two colinear elements which both radiate at low angles, reinforcing each other and providing gain. Without the phasing coil you get multiple undesirable lobes. Also keep in mind that 5/8 wave is NOT a resonant length. There are several ways to compensate for the reactance at the base of a 5/8 wave radiator, the easiest being to add a small inductance in series which makes the antenna electrically equivalent to a 3/4 wave. (3/4 wave is resonant, as you have already discovered). Given that the gain advantage of a 5/8 wave antenna over a 1/4 wave antenna is probably not noticeable except under the most difficult conditions, and even then may or may not make a difference, my suggestion is to stick with the 1/4 wave antenna. It is simple and works OK.

Above 5/8 wave the antenna exibits split lobes - so 5/8 is considered the
optimum

Yes it requires a matching network - but easy to implement

II use a quarter wave around my area as the repeaters are usually up on
mountain tops - thus a higher radiation works well.

On the open highways I use a 5/8 wave -- ranges way down the road.

Yep use a SWR meter and check resonance on the two bands -- now you will
have piece of mind

Wouldn't worry about how a dual band antenna is constructed - different
schemes can be used. Just so it is resonant as speced and adjusted if it can
be.

--
CL -- I doubt, therefore I might be !

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:HMHQe.213209$gL1.115362@tornado.texas.rr.com...
> I've got an HT and it's got a basic dual band 144 MHz/440 MHz antenna.
> It's about a meter long, which would be correct for the 144 MHz band.
>
> What makes this antenna different from a 144 MHz (only) antenna?
>
> Are there typically two conductors inside, with one 1 meter and one 35
> cm? Or are the antennas typically just identical to a 144 MHz (only)
> antenna, and it just works at 3/4 wavelength at 70 cm?
>
> As I understand it, a 3/4 wavelength whip should work reasonably well,
> being resonant and having a similar impedance to a 1/4 wavelength
> whip. Is this correct?
>
> To be more to the point -- I've got a Kenwood D700A in my car. It has
> a built in duplexer, and one antenna jack. I've hooked it up to a 2
> meter antenna on my roof, and it seems to work fine, both on 2m and
> 70cm. But I'm wondering if I'm risking ruining it ...
>
> (I haven't put a SWR meter on it yet. I probably should.)
>
> And what's so magic about 5/8 wave antennas? It's not even resonant,
> so obviously a matching network of some sort will be needed, but why
> 5/8? Why not 11/16? Or 3/4? Or something else?
>
> --
> Doug McLaren, dougmc@frenzy.com, AD5RH
> `What's the use of happiness? It can't buy you money.' -Henny Youngman

4793. Re: What's in a dual band 2m/70cm antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 20:18:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125346866_1901@spool6-east.superfeed.net>
Source record: 71359

Doug McLaren wrote:
> And what's so magic about 5/8 wave antennas? It's not even resonant,
> so obviously a matching network of some sort will be needed, but why
> 5/8? Why not 11/16? Or 3/4? Or something else?

The free demo version of EZNEC available at www.eznec.com
will answer those questions for you.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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4794. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-29 21:11:57 UTC
From: nm5k@wt.net
Message-ID: <1125349917.597853.320690@g14g2000cwa.googlegroups.com>
Source record: 71360

Anyone who has tried to operate multiple dipoles in parallel will know
that without heroic effort this is a false premise, nevertheless, the
practice continues.

Huh? Never had a problem here. But I don't "stack" mine like
some people do. That's what causes the coupling problems.
If you parallel feed two dipoles at right angles, there is very little
interaction at all. I spread mine apart as far as possible.
Problems are rare, and easily cured by just moving a wire
a few feet if it happens. It's the ones who tightly stack them with
short spreaders, that have the nightmare tuning problems.

Multiple radials of different length are
often operated in parallel because it is thought that there is then a
set that is optimum for each band.

Well, there is a set that is tuned for a certain band. They won't work
worth a hoot if they aren't resonant. But this applies only to
elevated
radials. On the ground, I agree...measuring is a waste of time.
Doesn't matter if the wire is insulated or not. Will act much the same
either way.
MK

4795. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 02:53:17 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <99412$4313ca1e$97d55b95$17367@ALLTEL.NET>
Source record: 71361

Your making it tough on yourself. Lay the wires out on the grass. Get a bunch of coathangers that have multiplied in your closet and cut 6" pieces and bend into a "U" shape and use them to nail the wire to the ground.

Your lawnmower will never touch them and you save the rental cost of a trencher and clear out the coathangers. A real win win situation.
"Paul Hinman" <paul.hinman@shaw.ca> wrote in message
news:NFFQe.330061$5V4.212744@pd7tw3no...
I came across an interesting antenna the other day on the web. It called for four radials for each band that one would want to use it on. In order to protect the lawn mower I would like to bury the radials. If I use insulated wires for the radials can I bury multiple radials for different frequencies in the same trench. I would rent a small trencher like they use for underground power and utility feeds, make four trenches and drop in the radials, then cover them.

Thanx for any responses.

Paul VE6LDS

4796. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 03:55:08 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4313D89C.9070704@comcast.net>
Source record: 71362

Richard,

Simply create a model of a coax feed to a poorly tuned dipole. It is quite easy to create a situation where a significant portion or the power is radiated from the coax feedline.

It is really quite simple: Coax is designed as an unbalanced transmission line from a source of a known impedance (nominally 50 Ohms for most common coax) to a similar known destination impedance. Under those circumstances there in trivial leakage.

However in the case where the 'antenna' at the other end is poorly matched it is possible to have significant radiation from the coax. Again look at a poorly tuned dipole.

The whole idea of coax is to use it the way it was intended. Then it works well.

Dan

Richard Harrison wrote:
> Somone wrote:
> "My second claim is when the mismatch condition at the coax destination,
> i.e. antenna that may result in significant radiation from the coax
> itself."
>
> Responses already show this is untrue.
>
> Radiation from the external coax surface comes from launching a signal
> on that surface. Good coax does not let signals penetrate its shield.
>
> A mismatch between a transmission line and its attached antenna affects
> both transmitting and receiving from the antenna, but does not launch
> signals on the outside of the coax.
>
> A mismatched transmitting antenna does not accept all available power
> incident upon it and reflects a portion back toward the sender depending
> on how bad the mismatch is.
>
> A mismatched receiving antenna has a source resistance (radiation
> resistance) and may also have reactance. A conjugate match is needed for
> maximum power transfer to the feedline. The mismatched antenna will
> either not extract all the power available to it in the passing wave or
> else reradiate more than 50%, (with full extraction, the minimum
> possible reradiation is with a perfectly matched antenna). Consider a
> short circuit across the antenna feedpoint. 100% of the energy extracted
> by the antenna is reradiated. Consider an open circuit at the antenna

> feedpoint. Little if any power is extracted from the wave sweeping the
> receiving antenna.
>
> The most power is received by a receiving antenna when its radiation
> resistance is matched to the Zo of the feedline. In this case, 50% is
> the best possible received carrier power in the receiver input. Nobody
> tells the antenna it is a receiving antenna. It is a conductor carrying
> a current, never mind where it came from, so it is going to radiate.
> When matched resistances are involved in source (radiation resistance)
> and load (Zo matched), the power is split 50-50 between source and load.
> The radiation resistance, is the source resistance for the receiver
> load, and it represents the reradiation from the reeiving atenna.
>
> 50% of the received power accepted by the load is the best possible
> performance. Mismatch means less. Either less power accepted by the
> antenna or more power reradiated by by the antenna.
>
> A transmatch can make the feedline appear as a matching load at the
> antenna junction for receiving. If matched for both transmitting and
> receiving, all available power will be transmitted and received.
>
> Best regards, Richard Harrison, KB5WZI
>

4797. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 04:03:12 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4313DA80.2040408@comcast.net>
Source record: 71363

Cecil,

To this point I do not know where the radiation comes from. I suspect it is from the antenna. The easiest case is to model a poorly balanced dipole directly feed by coax. It radiates significant power back down the shield.

After the response of the majority of posters to this concept I plan to find out more.

Dan

Cecil Moore wrote:
> dansawyeror wrote:
>
>> My first claim is a tuner at the source does not materially improve
>> what is happening in the coax. That is a tuner does not recreate the
>> condition above where the coax is functioning as a properly matched
>> and terminated transmission line. All the tuner does is match the
>> impedance at the coax source back to some known, usually 50 Ohm, value.
>
>
> No matter what the voltages and currents are, if they are balanced,
> the transmission line won't radiate (much). If the SWR is 100:1 and
> the currents are balanced, the transmission won't radiate (much). If
> the SWR is 1:1 and the currents are unbalanced, the feedline is likely
> to radiate.
>
>> My second claim is when the mismatch condition at the coax
>> destination, i.e. antenna that may result in significant radiation
>> from the coax itself.
>
>
> Please understand it is not impedance mismatches that cause radiation
> from the feedline. It is unbalance in the feedline currents that causes
> feedline radiation. Current imbalance and impedance mismatches are not
> necessarily related.
>
> Current imbalance in a matched system can cause feedline radiation.
>
> Impedance mismatches can exist with negligible feedline radiation.

4798. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 04:12:58 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4313DCCA.7050408@comcast.net>
Source record: 71364

Richard,

Thank you for this well constructed reply.

> This mismatch could arise for any number of reasons, and not all
> contribute to radiation from the coax. Wes has already demonstrated a
> deliberate mismatch at the end of a cable that exhibits absolutely no
> radiation from the coax. This is because he has contrived to contain
> the fields from emerging and coupling to the outside of the coax
> shield. You should be aware that the shield does support currents on
> the inside and outside that are wholly unaffected by each other -
> except at the drive point where the two conduction paths are joined.
>
> When you drive a dipole with a coax, the exterior conductive path of
> the shield (a separate circuit from the interior conductive path of
> that same shield) is in parallel with one arm of the dipole. This
> means you have a third radiator that has a length and termination that
> is undefined.

In the case where a mistuned dipole is being driven directly from coax there is radiation from the coax feed. This can only happen from current in the shield. Is this what you are referring to in the second paragraph?

Thanks,
Dan

4799. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 06:32:07 UTC
From: richardharrison@webtv.net
Message-ID: <444-4313FD67-297@storefull-3251.bay.webtv.net>
Source record: 71365

Dan wrote:
"The whole idea of coax is to use it the way it was intended."

I agree.

Transmission lines don`t radiate because they are mismatched.

Transmission lines radiate because they are unbalanced and this causes common-mode (unbalanced) current. In coax, the common-mode current flows on the outer surface of the shield and it radiates.

Best regards, Richard Harrison, KB5WZI

4800. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 06:58:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4nv7h19j206dim36unbnv9fhajndl1kh7a@4ax.com>
Source record: 71366

On Mon, 29 Aug 2005 21:12:58 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>> When you drive a dipole with a coax, the exterior conductive path of
>> the shield (a separate circuit from the interior conductive path of
>> that same shield) is in parallel with one arm of the dipole. This
>> means you have a third radiator that has a length and termination that
>> is undefined.
>
>In the case where a mistuned dipole is being driven directly from coax there is
>radiation from the coax feed. This can only happen from current in the shield.
>Is this what you are referring to in the second paragraph?

Hi Dan,

Hmmm, The dipole is mistuned by the third conductor, the coax's
shield's exterior; otherwise, the dipole would be suitably matched
(this is the presumption, of course).

The source of the current on the coax's shield's exterior comes from
the excitation voltage seen across the dipole drive point (to which
the shield is common to one of the arms). The arm of the dipole that
is not attached to the shield, sees both its opposite arm, and the
undefined length of the shield's exterior path. This additional load
both unbalances, and mismatches. It is the unbalance that gives rise
to the Common Mode current, the mismatch simply comes for free.

Of course, you could fall into the condition where the dipole would
not normally be tuned, but through luck and happenstance, the addition
of the third radiator creates a match - this is strictly opportunistic
and sometimes the source for glowing reports of an otherwise horrible
antenna design. And this is the genesis of favorable accolades for
many of the mythic antennas that go by initials: CFA, EH, and so on
down the line. The "inventors" have simply contrived to tune the
driveline to their "inventions." Their aversion to discussing
driveline isolation is a hallmark of their "science." Their
insistence that choking the driveline is unnecessary or an impediment
to the design's utility, is further evidence of a generous thumb on
the scale of proof.

The addition of the choke gives its Z to snub this Common Mode
current. As both interior paths (that of the line's center wire, and
the interior of the shield) driving the dipole pass through the same
loops, their magnetic fields are unperturbed and see no additional
impedance. However, the "return" path of the shield exterior sees
these loops alone, and thus the Z is inserted into series with it.

If you think in terms of the W2DU style BalUn, the interior current/magnetic lines both transit THROUGH the beads, whereas the exterior shield current/magnetic lines CUT the beads - hence the choking action is more apparent in this configuration.

73's
Richard Clark, KB7QHC

4801. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 07:15:47 UTC
From: richardharrison@webtv.net
Message-ID: <13069-431407A3-853@storefull-3254.bay.webtv.net>
Source record: 71367

Dan wrote:
"Simply create a model of a coax feed to a poorly tuned dipole."

Dan has something there. The "ARRL Antenna Book" has an explanation of "Commonn-Mode Transmission Line Currents" on page 26-16 in my 19th edition. Launch of coax radiation is shown in Fig 24 on the same page. This picture may be worth 1000 words.

Best regards, Richard Harrison, KB5WZI

4802. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 11:50:46 UTC
From: Dan Richardson <>
Message-ID: <qoh8h1d8g53dlhtqolb9s32145jj0rhlku@4ax.com>
Source record: 71143

On Tue, 30 Aug 2005 02:15:47 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Dan wrote:
>"Simply create a model of a coax feed to a poorly tuned dipole."
>
>Dan has something there. The "ARRL Antenna Book" has an explanation of
>"Commonn-Mode Transmission Line Currents" on page 26-16 in my 19th
>edition. Launch of coax radiation is shown in Fig 24 on the same page.
>This picture may be worth 1000 words.
>
>Best regards, Richard Harrison, KB5WZI

Walt's excellent explaination on this subject can be found here:

http://www.w2du.com/r2ch21.pdf

73,
Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

4803. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 12:34:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125405437_329@spool6-east.superfeed.net>
Source record: 71368

dansawyeror wrote:
> To this point I do not know where the radiation comes from. I suspect it
> is from the antenna. The easiest case is to model a poorly balanced
> dipole directly feed by coax. It radiates significant power back down
> the shield.

Actually, a perfectly balanced dipole can also radiate from the coax
shield because coax is unbalanced. Take a look at www.w2du.com and
www.eznec.com for information on baluns and chokes which tend to
reduce feedline radiation.

It appears to me that you may be confusing "balance" with "matching".
Those words have very different definitions.

A balanced 50 ohm antenna fed with coax and having an SWR of 1:1 is
matched but unbalanced and is likely to radiate from the feedline.

A balanced 50 ohm antenna fed with 600 ohm balanced line and having
an SWR of 12:1 is unmatched but balanced and is not likely to radiate
much from the feedline.
--
73, Cecil http://www.qsl.net/w5dxp

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4804. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 12:38:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125405638_335@spool6-east.superfeed.net>
Source record: 71369

dansawyeror wrote:
> Simply create a model of a coax feed to a poorly tuned dipole.

Please define, "poorly tuned", "mismatched", and "unbalanced".
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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4805. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 12:38:49 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <0ij8h1p79cbaki1gbcb3aj391ht9rpjv2k@4ax.com>
Source record: 71370

This has been my favorite way for a long time. The wires remain
removable and pretty much become hidden in the turf after a year. A
lot depends on the nature of the soil you are dealing with. North
Carolina red clay in August is especially tough. Six inches is longer
than I have needed. In the past I have ignored what might be optimum
and instead installed the radials I could. I am inclined to use
electric fence wire because it is cheap. Just use more of it. I
realize that this approach is not very academic, but I feel it yields
the best results in the long run for a given set of conditions.

My current location seems especially prone to lightning so I expect it
will be prudent to tie the radial system to the house ground with #6
copper wire.

On Mon, 29 Aug 2005 22:53:17 -0400, "Fred W4JLE" <fred@w4jle.com>
wrote:

>Your making it tough on yourself. Lay the wires out on the grass. Get a bunch of
coathangers that have multiplied in your closet and cut 6" pieces and bend into a "U" shape
and use them to nail the wire to the ground.
>
>Your lawnmower will never touch them and you save the rental cost of a trencher and clear
out the coathangers. A real win win situation.
> "Paul Hinman" <paul.hinman@shaw.ca> wrote in message
news:NFFQe.330061$5V4.212744@pd7tw3no...
> I came across an interesting antenna the other day on the web. It called for four radials
for each band that one would want to use it on. In order to protect the lawn mower I would
like to bury the radials. If I use insulated wires for the radials can I bury multiple
radials for different frequencies in the same trench. I would rent a small trencher like
they use for underground power and utility feeds, make four trenches and drop in the
radials, then cover them.
>
> Thanx for any responses.
>
> Paul VE6LDS

4806. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 13:29:49 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <gcn8h1dvmskgf5upogkajq7o7d3p1bld9u@4ax.com>
Source record: 71371

On Mon, 29 Aug 2005 15:17:01 GMT, Paul Hinman <paul.hinman@shaw.ca>
wrote:

>I came across an interesting antenna the other day on the web. It
>called for four radials for each band that one would want to use it on.
>In order to protect the lawn mower I would like to bury the radials. If
>I use insulated wires for the radials can I bury multiple radials for
>different frequencies in the same trench. I would rent a small trencher
>like they use for underground power and utility feeds, make four
>trenches and drop in the radials, then cover them.
>
>Thanx for any responses.
>
>Paul VE6LDS

A trencher is far overkill. Any sufficiently hard disk can cut through
the turf and inch or so. That is all that is needed for burying a
radial. I have about 30 radials for a Butternut Ground plane. I used
an old circular saw blade which I put on an improvised axle to cut
through the turf. I used whatever wire I had on hand at the time, some
bare, some insulated. It works fine. One thing to notice though is
that more radials will somewhat increase the bandwidth of the antenna,
but not anything which can't be overcome with a transmatch. The
radials do have to be radial from the antenna. If you crave super
efficiency though you may have to go to the extremes of Jerry Sevcik
(sp) who wrote a series of articles and books on vertical antennas in
the 70's. I have nearly 200 countries though with just the Butternut
and about 100 watts so you will get out.

Jon W3JT

4807. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 14:13:14 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <jup8h15jdk3ckbu7ut1u8nm5hp4tojucm7@4ax.com>
Source record: 71372

On Mon, 29 Aug 2005 20:55:08 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

I think I've got this guy figured out; it's Fractenna come back to
haunt us.

4808. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 14:43:21 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <df2bbaihl1@ctb-nnrp2.saix.net>
Source record: 71285

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:666-4312A62D-947@storefull-3255.bay.webtv.net...
> John L. wrote:
> "I am in East Anglia in the United Kingdom."
>
> I was in Scotland a few weeks ago. I noticed many satellite dishes and
> was surprised at how low the elevation angles were. Most were nearly set
> horizontally. Some had dish feeds which were actually depressed below
> the horizontal. I concluded that their vertical beamwidts were deep
> enough to work anyway. I assumed that the users actually were getting a
> picture. I suspect that in Edinburg, you can start by setting the
> vertical angle with a carpenter`s level. It works that way with most
> terrestrial microwaves. In East Anglia, I suppose you are farther south
> and need some vertical elevation angle on your dish, but not much.
>
> You can get your bearings with a fix on the north star, some accurate
> maps, and information on where the bird is parked in orbit.
>
> Best regards, Richard Harrison, KB5WZI
>

Your reference to "getting a picture" implies that you are refering to
satellite television. Many of the dishes have off centre feeds set below the
apparent axis of the parabola. that means the incoming signal is at the
oppsite angle above.
Those dishes also have very narrow beamwidth making aiming VERY
precise.

The original poster is asking about an antenna for the Worldspace satellite
radio service. The antennas used for that application have very much wider
beamwidth.
In addition it's a different satellite in a different location.

Hope this clears the matter up a bit.

73
Roger ZR3RC

4809. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 15:20:03 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <e5u8h15nquohak7om8u7asp3o9qu9gmnba@4ax.com>
Source record: 71373

On Tue, 30 Aug 2005 07:13:14 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>On Mon, 29 Aug 2005 20:55:08 -0700, dansawyeror
><dansawyeror@comcast.net> wrote:
>
>
>
>
>I think I've got this guy figured out; it's Fractenna come back to
>haunt us.

No Wes, I think it's a new guy getting his kicks from reading that new
technical best seller, "Good Buddy for Dummies."

4810. Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 15:38:30 UTC
From: Dave <dave@telnet.com>
Message-ID: <W3%Qe.291004$x96.260755@attbi_s72>
Source record: 71374

I am thinking of buying the Ameritron 600 watt solid state amp and was wondering what opinions you all may have of it. Thanks

4811. Close spaced multiband antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 15:51:46 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <sku8h1dg01929p7rg01gu3pgk62vtj2i6e@4ax.com>
Source record: 71375

Reference: Figure 7-6 of ARRL Antenna Handbook,
Chapter Seven, 19 th edition

For your convienience:
http://www.dixienc.us/7dash6.htm

Has anyone had any luck with this antenna?

I have constructed a similar vertical in a "fan" shape that has performed well for me but when I start getting the wires this close together like this the results are unpredictable.

I think this scheme has appeared in the Handbook for many years.

de W8CCW, John Ferrell

4812. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 16:19:12 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <_pGdnYExUJaMGoneRVn-sQ@comcast.com>
Source record: 71276

Cecil Moore wrote:

> SNIPPED
>
> It appears to me that you may be confusing "balance" with "matching".
> Those words have very different definitions.
>
> A balanced 50 ohm antenna fed with coax and having an SWR of 1:1 is
> matched but unbalanced and is likely to radiate from the feedline.
>
> A balanced 50 ohm antenna fed with 600 ohm balanced line and having
> an SWR of 12:1 is unmatched but balanced and is not likely to radiate
> much from the feedline.

Yep!! Love that high VSWR! Tuned feeders for 50+ years and they still
work fine.

4813. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 16:42:29 UTC
From: Matthew Weber <mweber@library.berkeley.edu>
Message-ID: <43148C75.606@library.berkeley.edu>
Source record: 71277
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Cecil Moore wrote:
> Randy wrote:
>
>> The Christian God is not Allah, and Jesus never prayerd to Allah.
>
>
> "Allah" is Aramaic for God. If Jesus prayed to God in Aramaic,
> He prayed to Allah. Islam didn't exist when Jesus lived but
> the word "Allah" certainly existed and was most likely in
> Jesus' vocabulary.

Not "Allah," but "El." The two names are clearly linguistically
related, but they are not the same.

> Yahweh, Jehovah, and Allah are all the same
> Father God-head entity. What the three camps have going is nothing
> but sibling rivalry

Untrue. The claims of Christianity and Islam, their disciplines, and
their core beliefs are different. It's simple-minded reductivism to
claim that the Muslim Allah and the Christian God are the same. Muslim
and Christian beliefs cannot be harmonized without doing violence to one
side or the other. If one is true, then the other is false.

> and I don't know whether God is laughing or
> crying over those three gangs of idiots performing atrocities
> in His name down through the ages. If one doesn't love Moslems,
> one is not following Jesus' Christian teachings.

True enough, as far as it goes. But loving Muslims doesn't imply loving
everything that they do. Love isn't "being nice".

Matt

4814. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 16:59:27 UTC
From: Matthew Weber <mweber@library.berkeley.edu>
Message-ID: <df239neaf1@agate.berkeley.edu>
Source record: 71278
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler
Body handling: HTML body converted to readable text

Cecil Moore wrote:

> Dave Althoff, Jr. wrote:
>
>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>> God"?
>
>
> Actually, the word or words of "Elohim", i.e. Gods.
> Elohim is *PLURAL*. Yahweh was one of the Elohim.

Yes, Elohim is a plural word. It doesn't necessarily signify that
Yahweh is one of many gods. Some grammarians have referred to it as a
"plural of majesty".

--

Matthew Weber

Curatorial Assistant

Jean Gray Hargrove Music Library

University of California, Berkeley

Behold, a greater than Solomon is here.

The Holy Bible (The New Testament): The Gospel According to St Matthew, 12:42

4815. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 17:14:15 UTC
From: richardharrison@webtv.net
Message-ID: <1066-431493E7-87@storefull-3257.bay.webtv.net>
Source record: 71279

Wes, W7WS wrote:
"--it`s Fractenna come back to haunt us."

Wes is very funny. Happy Halloween!

Dr. Cohen knows the difference between balance and matching, so I don`t think it`s him.

Best regards, Richard Harrison, KB5WZI

4816. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 17:29:43 UTC
From: John Smith <assemblywizard@gmail.com>
Message-ID: <pan.2005.08.30.17.29.40.759586@gmail.com>
Source record: 71280
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

North American Indians call him ("God") "The Great Spirit", The Great
Spirit works for me, as will God, Yahweh, Jehovah, Jesus, "The Holy
Spirit", "The Father", etc...

Allah I would more liken to satan--"The Great Deceiver"--it which can
appear to some as "An Angel of Light." It is a yin-yang thing...
good-bad, light-dark, evil-good, etc...

John

On Tue, 30 Aug 2005 09:42:29 -0700, Matthew Weber wrote:

> Cecil Moore wrote:
>> Randy wrote:
>>
>>> The Christian God is not Allah, and Jesus never prayerd to Allah.
>>
>>
>> "Allah" is Aramaic for God. If Jesus prayed to God in Aramaic,
>> He prayed to Allah. Islam didn't exist when Jesus lived but
>> the word "Allah" certainly existed and was most likely in
>> Jesus' vocabulary.
>
> Not "Allah," but "El." The two names are clearly linguistically
> related, but they are not the same.
>
>> Yahweh, Jehovah, and Allah are all the same
>> Father God-head entity. What the three camps have going is nothing
>> but sibling rivalry
>
> Untrue. The claims of Christianity and Islam, their disciplines, and
> their core beliefs are different. It's simple-minded reductivism to
> claim that the Muslim Allah and the Christian God are the same. Muslim
> and Christian beliefs cannot be harmonized without doing violence to one
> side or the other. If one is true, then the other is false.
>
>> and I don't know whether God is laughing or
>> crying over those three gangs of idiots performing atrocities
>> in His name down through the ages. If one doesn't love Moslems,
>> one is not following Jesus' Christian teachings.
>
> True enough, as far as it goes. But loving Muslims doesn't imply loving
> everything that they do. Love isn't "being nice".
>

> Matt

4817. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 17:32:02 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <Bq6dnVYyAruPBYneRVn-2Q@bright.net>
Source record: 71281

Where is the antenna issue(s) in this thread? I must have missed it...

Scott

Matthew Weber wrote:

> Cecil Moore wrote:
>
>> Dave Althoff, Jr. wrote:
>>
>>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>>> God"?
>>
>>
>>
>> Actually, the word or words of "Elohim", i.e. Gods.
>> Elohim is *PLURAL*. Yahweh was one of the Elohim.
>
>
> Yes, Elohim is a plural word. It doesn't necessarily signify that
> Yahweh is one of many gods. Some grammarians have referred to it as a
> "plural of majesty".
>

4818. Re: Close spaced multiband antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 17:46:14 UTC
From: dplatt@radagast.org
Message-ID: <11h96r6bkj852d0@corp.supernews.com>
Source record: 71282

In article <sku8h1dg01929p7rg01gu3pgk62vtj2i6e@4ax.com>,
John Ferrell <johnferrell@sprintmail.com> wrote:

>Has anyone had any luck with this antenna?
>
>I have constructed a similar vertical in a "fan" shape that has
>performed well for me but when I start getting the wires this close
>together like this the results are unpredictable.

I'm currently using a three-wire dipole with wire separation of about
4-5", wires cut for 40/20/10. It works quite well, with acceptable
SWR across each of those bands.

I'd expect the one in the ARRL handbook to have stronger coupling
between the wires, due to their close proximity, and thus more
interaction. Trimming it for proper operation might be trickier, and
it would not surprise me if the SWR bandwidth was narrower than would
be the case for a multiwire dipole with broader separation between
wires.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4819. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 17:50:48 UTC
From: MD <mdonoghue4@cogeco.ca>
Message-ID: <Z_0Re.2843$884.438239@news20.bellglobal.com>
Source record: 71284

"Dave" <dave@telnet.com> wrote in message
news:W3%Qe.291004$x96.260755@attbi_s72...
> I am thinking of buying the Ameritron 600 watt solid state amp and was
> wondering what opinions you all may have of it. Thanks

You can read the reviews on eHam.

http://www.eham.net/reviews/detail/603

4820. Re: 80 meter loaded vertical versus 80 meter loaded dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 18:02:37 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <19dae$43149f49$97d55b95$19926@ALLTEL.NET>
Source record: 71283

Let opprobrious dogs lie... :>)

"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:jup8h15jdk3ckbu7ut1u8nm5hp4tojucm7@4ax.com...

> I think I've got this guy figured out; it's Fractenna come back to
> haunt us.

4821. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 19:17:50 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <fu2dnbg6R-hvLYneRVn-og@comcast.com>
Source record: 71286

FOLDED HANDS ???

Scott wrote:
> Where is the antenna issue(s) in this thread? I must have missed it...
>
> Scott
>
>
> Matthew Weber wrote:
>
>> Cecil Moore wrote:
>>
>>> Dave Althoff, Jr. wrote:
>>>
>>>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>>>> God"?
>>>
>>>
>>>
>>>
>>> Actually, the word or words of "Elohim", i.e. Gods.
>>> Elohim is *PLURAL*. Yahweh was one of the Elohim.
>>
>>
>>
>> Yes, Elohim is a plural word. It doesn't necessarily signify that
>> Yahweh is one of many gods. Some grammarians have referred to it as a
>> "plural of majesty".
>>

4822. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 19:47:52 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <aud9h1h0aelepn2ek3degh9bakkuokgonm@4ax.com>
Source record: 71287

That should have been more radials DECREASE the bandwidth.
Sorry,

Jon W3JT

On Tue, 30 Aug 2005 09:29:49 -0400, J. Teske <jdteske@comcast.net>
wrote:

>On Mon, 29 Aug 2005 15:17:01 GMT, Paul Hinman <paul.hinman@shaw.ca>
>wrote:
>
>>I came across an interesting antenna the other day on the web. It
>>called for four radials for each band that one would want to use it on.
>>In order to protect the lawn mower I would like to bury the radials. If
>>I use insulated wires for the radials can I bury multiple radials for
>>different frequencies in the same trench. I would rent a small trencher
>>like they use for underground power and utility feeds, make four
>>trenches and drop in the radials, then cover them.
>>
>>Thanx for any responses.
>>
>>Paul VE6LDS
>
>A trencher is far overkill. Any sufficiently hard disk can cut through
>the turf and inch or so. That is all that is needed for burying a
>radial. I have about 30 radials for a Butternut Ground plane. I used
>an old circular saw blade which I put on an improvised axle to cut
>through the turf. I used whatever wire I had on hand at the time, some
>bare, some insulated. It works fine. One thing to notice though is
>that more radials will somewhat increase the bandwidth of the antenna,
>but not anything which can't be overcome with a transmatch. The
>radials do have to be radial from the antenna. If you crave super
>efficiency though you may have to go to the extremes of Jerry Sevcik
>(sp) who wrote a series of articles and books on vertical antennas in
>the 70's. I have nearly 200 countries though with just the Butternut
>and about 100 watts so you will get out.
>
>Jon W3JT

4823. Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 20:05:56 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1125432356.646414.257460@o13g2000cwo.googlegroups.com>
Source record: 71288

Hey all,

I've been browsing around looking at AM / FM transmitters and I keep bumping into exciters. I'm curious. What is the difference between exciters and transmitters?

I'm new to broadcasting, so I'm still getting used to the lingo.

Thanks!

4824. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 20:34:45 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <df2ft3$g43$1@mailhub227.itcs.purdue.edu>
Source record: 71289

An exciter is a transmitter that normally drives an amplifier.

"CD" <mr.whatever@gmail.com> wrote in message
news:1125432356.646414.257460@o13g2000cwo.googlegroups.com...
> Hey all,
>
> I've been browsing around looking at AM / FM transmitters and I keep
> bumping into exciters. I'm curious. What is the difference between
> exciters and transmitters?
>
> I'm new to broadcasting, so I'm still getting used to the lingo.
>
> Thanks!
>

4825. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 20:43:07 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <nsg9h1hhnddrdg9ilivl8uh8v1s61ik3mh@4ax.com>
Source record: 71290

On 30 Aug 2005 13:05:56 -0700, "CD" <mr.whatever@gmail.com> wrote:

>Hey all,
>
>I've been browsing around looking at AM / FM transmitters and I keep
>bumping into exciters. I'm curious. What is the difference between
>exciters and transmitters?
>
>I'm new to broadcasting, so I'm still getting used to the lingo.

Well, this is a ham radio group and we don't "broadcast", we transmit
to at most a few individuals at a time.

"Exciters" are transmitters that are usually used to "excite" a
following amplifier. Because many (most) amateur power amplifiers of
the day require tens to maybe 100 Watts input to deliver rated output,
an exciter might well be a 100 W transmitter.

4826. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 21:19:51 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <k24Re.37$%j7.31@bignews3.bellsouth.net>
Source record: 71291

Like someone else said - instead of a trencher, why not try a edger.
You can buy an electric edger and a long extension cord cheap enough - probably cheaper than renting a trencher.
I heard one person say he just purchared a new chain for his chainsaw - and used the old chain to make the trenches for radials.
Another thought - don't do radials at all - hire a front-end-loader to bury a few chain-link fence sections and tie ground to them.

Be sure to grunt like the tool-man when installing the radial system - its a tradition.

4827. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 21:24:57 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <574Re.39$%j7.21@bignews3.bellsouth.net>
Source record: 71292

You don't need a linear unless you're on 80 meters - then you really need a biggie.

4828. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 21:42:58 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <e4d2c$4314d2e3$97d55b95$18080@ALLTEL.NET>
Source record: 71293

Why do you need one on 80? The reality is if you can hear the other guy, he can hear you. Now if your ego requires that you have to be the first one in the pile to break through, then I guess you need a big amplifier.

My pet peeve is hearing a DX station calling CQ DX and some high powered asshole starts out "Good evening again Carlos, your almost as strong as you were last night when we talked........" while some guy with a 100 watts gets to set on their thumbs until Got Rocks is through bloviating.

Many are trying to get a new country while Mr. Got Rocks plays "watch this you lowly peons". Yes! you asshole in New England, I am refering to you. You splatter the entire DX window and have no regard for your fellow hams... Not one time have I heard him say, "Carlos listen for KB2***, he is trying to call you".

Boy, I am glad I got that out of my system. :>)

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:574Re.39$%j7.21@bignews3.bellsouth.net...
>
> You don't need a linear unless you're on 80 meters - then you really need
a
> biggie.
>
>

4829. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 21:56:25 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <14i9h1hpl7d7g6bdol816cl9ck2nigktod@4ax.com>
Source record: 71294

On Tue, 30 Aug 2005 09:42:29 -0700, Matthew Weber
<mweber@library.berkeley.edu> wrote:

>Cecil Moore wrote:
>> Randy wrote:
>>
>>> The Christian God is not Allah, and Jesus never prayerd to Allah.

In Arabic, (and I was a professional government Arabic linguist and Middle East specialist) "Allah" means "THE God". The "AL" in Allah is the definite article in Arabic and in the Arabic script, the definite article gets physically linked to the word it defines. The word "god" (lower case) (in Arabic is Lam, Lam, Tah Marbutah or LLH. Unfortunately I can't do Arabic script on my home computer. Also Arabic script does not have capital letters.) That word is transliterated LLH. (That "H" is really a glottal stop like the second "h" in "huh." There are several Arabic letters which can be transliterated "H" in Roman script. The Tah Marbutah, it looks like an "o" with two dots above it, has no real equivalent in Roman script, but is pronounced as a glottal stop. Like Hebrew, most vowels are not written out in Arabic except in linguistic texts and the Koran...they are simply diacrital marks. "LLH", without the definite article, was used to described dieties in Arabic long before Muhammad and the Koran came around in ca. 632 AD when the pre-Islamic Arabs were mainly animists.

From an Islamic perspective, "Allah" is the same God as the God of Jews and the Christians. The Koran makes that quite clear. (The Koran also argues that the Jews didn't go far enough in their beliefs and the Christians got it wrong, but further argues that an Islamic believer is unlikely to convert them and they should be left alone and respected as "People of the Book.", the book in this case being the Pentateuch.) Whether you wish to accept that concept, of course, is a theological question. Most academic comparative theologists, even those at Christian and Jewish seminaries who are among the believing, do accept that premise (that the God is the same entity) even if they don't believe in the premise that God made the Koran his last word on the subject. The Islamic formula, as written in Arabic, states that there is no god (indefinite article) (llh) but THE God (Allah) with the definite article. The word has its roots in the proto-Semitic common to Arabic, Aramaic, and Hebrew. Again, from an Islamic perspective, Abraham, Jesus and Mohammad prayed to the same God, but certainly the vocabulary was different.

Your theologic milage may vary, but here is at least is a linguistic and historical basis generally accepted in academic circles.

Jon W3JT (Retired Gov't Linguist with Masters in Middle East Area Studies.)

4830. Diamond W-8010 or general advise on shortened dipoles with traps or coils

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 21:59:13 UTC
From: News Xtra <jdekker@xtra.co.nz>
Message-ID: <PE4Re.7269$iM2.731332@news.xtra.co.nz>
Source record: 71295

The Diamond W-8010 would fit on my location. I'm not sure if it uses traps or loading coils. Does anyone have experience with this antenna or failing that, what can be expected from a shortened dipole with traps.
Regards,
John ZL2TTM

4831. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:02:46 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1125439366.380280.282410@g47g2000cwa.googlegroups.com>
Source record: 71296

Thank you, John and Wes! I also thought that they were the same, but I wasn't too sure.

4832. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:09:34 UTC
From: kashe@sonic.net
Message-ID: <08m9h19jb695r24v05qj6uqjmunn7mbpl3@4ax.com>
Source record: 71297

On Tue, 30 Aug 2005 17:32:02 +0000, Scott <acepilot@bloomer.net>
wrote:

>Where is the antenna issue(s) in this thread? I must have missed it...
>

DXing God?

>Scott
>
>
>Matthew Weber wrote:
>
>> Cecil Moore wrote:
>>
>>> Dave Althoff, Jr. wrote:
>>>
>>>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>>>> God"?
>>>
>>>
>>>
>>> Actually, the word or words of "Elohim", i.e. Gods.
>>> Elohim is *PLURAL*. Yahweh was one of the Elohim.
>>
>>
>> Yes, Elohim is a plural word. It doesn't necessarily signify that
>> Yahweh is one of many gods. Some grammarians have referred to it as a
>> "plural of majesty".
>>

4833. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:18:29 UTC
From: jgboyles@aol.com
Message-ID: <1125440309.739470.208370@g49g2000cwa.googlegroups.com>
Source record: 71298

Dave wrote:
> I am thinking of buying the Ameritron 600 watt solid state amp and was
> wondering what opinions you all may have of it. Thanks

Make sure your antenna can handle 600 watts, and presents a near 50
ohm resistive match. The 4 MRF150 fets do not like mismatches on their
output. They are $125 each, and can fail, even tho they have VSWR
protection in the Amp. If you don't abuse the Amp it will do well.
I have never owned one, but homebrewed an Amp that was identical.
Since this is an antenna group, let us know what you intend to use.
Gary N4AST

4834. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:20:28 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <cqm9h1dbsnnht6pbivh00fque03v38cvg8@4ax.com>
Source record: 71299

On Tue, 30 Aug 2005 15:38:30 GMT, "Dave" <dave@telnet.com> wrote:

>I am thinking of buying the Ameritron 600 watt solid state amp and was
>wondering what opinions you all may have of it. Thanks

I've heard they make a nice little driver for a Henry 8K.

4835. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:24:04 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <Sp5Re.52$%j7.26@bignews3.bellsouth.net>
Source record: 71302

Yeah, is a pizzzer..
But I get a good laugh when I get through a pile up with 100 watts 10m all
the way off to Mongolia.
Went to sleep with a big grin knowing some of those KW big bucks bozo's
missed it just because
the were to busy blasting away instead of listening.
Sometimes it isn't just the money and power that gets the prize.
Enjoy your victories knowing it didn't cost thousands of bucks and dim your
lights.
Good Luck. K4TWO

"Fred W4JLE" <fred@w4jle.com> wrote in message
news:e4d2c$4314d2e3$97d55b95$18080@ALLTEL.NET...
> Why do you need one on 80? The reality is if you can hear the other guy,
> he
> can hear you. Now if your ego requires that you have to be the first one
> in
> the pile to break through, then I guess you need a big amplifier.
>
> My pet peeve is hearing a DX station calling CQ DX and some high powered
> asshole starts out "Good evening again Carlos, your almost as strong as
> you
> were last night when we talked........" while some guy with a 100 watts
> gets to set on their thumbs until Got Rocks is through bloviating.
>
> Many are trying to get a new country while Mr. Got Rocks plays "watch this
> you lowly peons". Yes! you asshole in New England, I am refering to you.
> You
> splatter the entire DX window and have no regard for your fellow hams...
> Not
> one time have I heard him say, "Carlos listen for KB2***, he is trying to
> call you".
>
> Boy, I am glad I got that out of my system. :>)
>
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
> news:574Re.39$%j7.21@bignews3.bellsouth.net...
>>
>> You don't need a linear unless you're on 80 meters - then you really need
> a
>> biggie.
>>
>>
>

>

4836. Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:35:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df2mvvrvh1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71300

I am truly disappointed with the long-running discourse on balanced and unbalanced feedlines and the power radiated therefrom. It's been going on for years.

Nobody, especially poor novices, has ever learned anything from it.

99% of it is bafflegab.

Few of us understand what on Earth is being waffled about. And those who do, prefer not to waste their time by joining in.

The reason I'm making this seemingly outrageous statement is that NOBODY HAS EVER QUANTIFIED, not even once, what they are waffling about. This demonstrates a great ignorance of the subject.

(Remember what Lord Kelvin said about the ability to measure and quantify what it is you are gabbing about and how that ability is directly related to what you really know about it.)

Perhaps somebody might be prepared to state the power actually radiated from feedlines in watts. At least it may create the impression you know what you are talking about.

It might possibly be at such a low level that, in the great majority of cases, it's not worth all the megabytes of bandwidth which are wasted on it.

As an unbiased World Citizen, I now find myself half-way down a bottle of Merlo, 2000, a produce of France. But I have in reserve some decent Californian stuff.

May I say how saddened I am to learn about the terrible disastrous storm which has befallen some of the Southern states.

Reg, G4FGQ

4837. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:39:45 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Re5Re.4761$FW1.4058@newsread3.news.atl.earthlink.net>
Source record: 71301

"CD" <mr.whatever@gmail.com> wrote in message
news:1125439366.380280.282410@g47g2000cwa.googlegroups.com...
> Thank you, John and Wes! I also thought that they were the same, but I
> wasn't too sure.
>

In a way they are the same. Exciters are usually thought of as a low power stage that drives a larger amplifier. The exciter plus the amplifier stages are what I would call a tansmitter. Many of the vhf/uhf comercial transceivers had a low power (around 100 to 300 milliwatts) exciter to drive the amplifier section that would take it to 25 to 150 watts out.

4838. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 22:53:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11h9orq9cv5bh98@corp.supernews.com>
Source record: 71303

Reg Edwards wrote:
> . . .
> The reason I'm making this seemingly outrageous statement is that
> NOBODY HAS EVER QUANTIFIED, not even once, what they are waffling
> about. This demonstrates a great ignorance of the subject.

The last time you made a similar statement (not long ago) I referred you to my article on baluns, then and now available at my web site, which includes measurements of imbalance when various balun configurations are used. Have you looked at it yet?

> Perhaps somebody might be prepared to state the power actually
> radiated from feedlines in watts. At least it may create the
> impression you know what you are talking about.
> . . .

Let's begin a little more simply. Can you tell us how many watts each portion of an inverted-L antenna radiates? How about each element of a Yagi? Or even, say, the outer 1/3 of a dipole?

If you can't, may we assume that you don't know what you're talking about when you discuss antennas?

Roy Lewallen, W7EL

4839. Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 23:06:04 UTC
From: wizard12342002@yahoo.com
Message-ID: <1125443164.355999.136830@g47g2000cwa.googlegroups.com>
Source record: 71304

Suppose I have an antenna some distance from the house. I run the transmission line down from the antenna, bury the line, run it underground to the house, place a lightning arrestor and ground just outside the house, then run the transmission line up the side of the house to the operating position on the second floor. Does anyone see a problem with this arrangement? I can't imagine that a lightning would "want" to travel back up toward the operating position when it has a good ground (at the arrestor) closer to the antenna.

-JJ

4840. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 23:34:00 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <d1r9h19k4e07d594reu82vegd8o4734t7f@4ax.com>
Source record: 71305

On 30 Aug 2005 16:06:04 -0700, wizard12342002@yahoo.com wrote:

>Suppose I have an antenna some distance from the house. I run the
>transmission line down from the antenna, bury the line, run it
>underground to the house, place a lightning arrestor and ground just
>outside the house, then run the transmission line up the side of the
>house to the operating position on the second floor. Does anyone see a
>problem with this arrangement? I can't imagine that a lightning would
>"want" to travel back up toward the operating position when it has a
>good ground (at the arrestor) closer to the antenna.
>
>-JJ

There are sooo many digits to the left of the decimal in lightning
that ALL bets are off if it strikes the antenna. The arrestor will
ground induced voltages from nearby strikes and wind ot precip static.
Ground your antenna when not in use by diconnecting the feedline and
grounding both sides. Don't operate when mother nature is
transmitting.

R

4841. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-30 23:36:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df2qij$m4s$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71306

> That should have been more radials DECREASE the bandwidth.
> Sorry,
>
==========

It may be considered by some that a decrease in bandwidth is a
disadvantage. What really matters is that more radials result in an
improvement in power radiating EFFICIENCY.

Albeit with a diminishing rate of return.

In ordinary garden soil, first lay about 3 or 4 shallow buried radials
and test the results using the receiver S-meter.

Then increase the number of radials by 50 percent and look for an
improvent. If there is no measurable improvement then, to be certain,
increase the number of radials by another 50 percent.

Keep increasing number of radials until there is no improvement and
then do a final increase of 20 or 30 percent. Even with very poor
garden soil, in all probability you will not exceed 20 or 30 radials.

Just ignore the ridiculous instructions in the handbooks and
magazines, and from old-wives, to lay the magic number of 120 radials
at the outset.

Due to reciprocity, any improvement on receive, as indicated by your
S-meter, will be exactly followed by the same improvement on transmit.

Reg, G4FGQ

4842. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 00:08:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df2sdt$bp9$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71307

Roy, do everybody a favour, by stating, numerically, how much power is radiated from feedlines. Then somebody might have some confidence in what you are bafflegabbing about.

Are you still using your S-meter as the North American Standard?

Found a corkscrew and I've just opened the Californian. I'd like to try some of your Oregon stuff - do you have any. ;o)

Reg.

4843. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 00:11:11 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <df2sj1bhl1@news.netins.net>
Source record: 71308

I've had mine for about 5 years and love it.

I highly recommend getting an LDG AT-1000 auto antenna tuner for it. Makes a really slick combination and pretty much assures a flat load for the amp to see. (Assuming you don't need 160m as the LDG doesn't do 160).

I tried some real torture tests on the LDG and it has been amazing...like feeding a 40m inverted V on 80m....terrible idea and a rotten antenna...but the LDG matched it right up. Very few auto-tuners can pass that particular test.

The ALS-600 has excellent protection circuits. I have tested them on several occasions when not paying attention. The load fault circuitry works very well.

I have no reservation about recommending the ALS-600. I use it on both SSB and CW, even RTTY at reduced power. I have used a TS-870s, FT-847 and TS-2000 to drive it and had no problems. IMD measurements on PSK31 indicate -30 dB with the ALS-600 running 200w output, driven by the TS-2000.

Have fun. 73
...hasan, N0AN
"Dave" <dave@telnet.com> wrote in message
news:W3%Qe.291004$x96.260755@attbi_s72...
>I am thinking of buying the Ameritron 600 watt solid state amp and was
> wondering what opinions you all may have of it. Thanks
>
>

4844. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 00:25:43 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <5lt9h19kogc24c04ma2g8ah4d2fpbfpndg@4ax.com>
Source record: 71309

On Tue, 30 Aug 2005 22:35:43 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

[Tired repetitive bafflegab snipped]
>
>As an unbiased World Citizen, I now find myself half-way down a bottle
>of Merlo, 2000, a produce of France. But I have in reserve some decent
>Californian stuff.

Since you're drinking a French wine the least you can do it keep the
"t" on the end of the French "Merlot."

When you break out the reserve Californian vintage, then you can drop
the "t" and just call it "delicious"

>
>May I say how saddened I am to learn about the terrible disastrous
>storm which has befallen some of the Southern states.

Thank you for your kind thoughts.

Do you suppose Britain or any of the other developed nations will be
sending any relief aid?

4845. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 00:30:32 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <jfu9h19fqee2lkchfjreq3eoc1ob1vmc01@4ax.com>
Source record: 71310

On Wed, 31 Aug 2005 00:08:30 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Roy, do everybody a favour, by stating, numerically, how much power is
>radiated from feedlines. Then somebody might have some confidence in
>what you are bafflegabbing about.

12.75 Watts +/- 6 dB.

4846. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 00:41:39 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <_O-dnfKxct1eYYneRVn-3A@comcast.com>
Source record: 71311

"Fred W4JLE" <fred@w4jle.com> wrote in message
news:e4d2c$4314d2e3$97d55b95$18080@ALLTEL.NET...
> Why do you need one on 80? The reality is if you can hear the other guy,
> he
> can hear you. Now if your ego requires that you have to be the first one
> in
> the pile to break through, then I guess you need a big amplifier.
>
Depends. I have had 30 - 45 minute QSOs with EU stations while running barefoot on 75. On the other hand, when I check into a local net, I run the amp at 1/2 power, about 600W. There is one person on the net who does not run an amp. Some weeks I only copy him 10 - 50 %. Others have the same experience. These people are all within about 50 miles from me.

QST tested the Ameritron SS amp, and liked it. They also like the switching power supply, which costs extra. I believe the linear supply is choke input, unregulated. These are 48V supplies.

Tam/WB2TT

4847. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 00:44:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11h9vakjueh4a1e@corp.supernews.com>
Source record: 71312

Reg Edwards wrote:
> Roy, do everybody a favour, by stating, numerically, how much power is
> radiated from feedlines. Then somebody might have some confidence in
> what you are bafflegabbing about.

Of the many things I've said you disagree with, which one are you now referring to as "bafflegabbing"?

And, who are "everybody" and "somebody"? You?

Roy Lewallen, W7EL
Reg's Old Wife & Nit-Picker
and, new title, Bafflegabber

4848. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 01:21:39 UTC
From: WCB <wbarwell@Mungggedd.mylinuxisp.com>
Message-ID: <11ha0ptrqj62866@corp.supernews.com>
Source record: 71313
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler

Matthew Weber wrote:

> Cecil Moore wrote:
>
>> Dave Althoff, Jr. wrote:
>>
>>> Do you believe the Bible to be the "Word of God"? Or the "Words of
>>> God"?
>>
>>
>> Actually, the word or words of "Elohim", i.e. Gods.
>> Elohim is *PLURAL*. Yahweh was one of the Elohim.
>
> Yes, Elohim is a plural word. It doesn't necessarily signify that
> Yahweh is one of many gods. Some grammarians have referred to it as a
> "plural of majesty".
>

See Genesis 6, god has a number of sons,
when the bible says gods, plural, it means that literally.

--

Xenu is around and about,
mention Hubbard, Xenu pops out!
No way for the clams to stamp Xenu out,
Xenu is around and about!

Cheerful Charlie

4849. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 01:43:55 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <df320sete1@news.netins.net>
Source record: 71314

Nice work, and a jewel of objectivity and accuracy, Jon! Don't confuse the religious particularists with facts, though, it makes them grumpy.<g>
(so-called Christian, Muslim or Jewish ...they deserve each other and appear embarassingly unworthy of their Prophets, peace be upon all of them)

Apologies to the list, I'll restrain myself now. I could only stand so much ignorance and propaganda.

...hasan, N0AN

"J. Teske" <jdteske@comcast.net> wrote in message news:14i9h1hpl7d7g6bdol816cl9ck2nigktod@4ax.com...
> On Tue, 30 Aug 2005 09:42:29 -0700, Matthew Weber
> <mweber@library.berkeley.edu> wrote:
>
>>Cecil Moore wrote:
>>> Randy wrote:
>>>
>>>> The Christian God is not Allah, and Jesus never prayerd to Allah.
>
> In Arabic, (and I was a professional government Arabic linguist and
> Middle East specialist) "Allah" means "THE God". The "AL" in Allah is
> the definite article in Arabic and in the Arabic script, the definite
> article gets physically linked to the word it defines. The word "god"
> (lower case) (in Arabic is Lam, Lam, Tah Marbutah or LLH.
> Unfortunately I can't do Arabic script on my home computer. Also
> Arabic script does not have capital letters.) That word is
> transliterated LLH. (That "H" is really a glottal stop like the second
> "h" in "huh." There are several Arabic letters which can be
> transliterated "H" in Roman script. The Tah Marbutah, it looks like an
> "o" with two dots above it, has no real equivalent in Roman script,
> but is pronounced as a glottal stop. Like Hebrew, most vowels are not
> written out in Arabic except in linguistic texts and the Koran...they
> are simply diacrital marks. "LLH", without the definite article, was
> used to described dieties in Arabic long before Muhammad and the Koran
> came around in ca. 632 AD when the pre-Islamic Arabs were mainly
> animists.
>
> From an Islamic perspective, "Allah" is the same God as the God of
> Jews and the Christians. The Koran makes that quite clear. (The Koran
> also argues that the Jews didn't go far enough in their beliefs and
> the Christians got it wrong, but further argues that an Islamic
> believer is unlikely to convert them and they should be left alone and
> respected as "People of the Book.", the book in this case being the
> Pentateuch.) Whether you wish to accept that concept, of course, is a

> theological question. Most academic comparative theologists, even
> those at Christian and Jewish seminaries who are among the believing,
> do accept that premise (that the God is the same entity) even if they
> don't believe in the premise that God made the Koran his last word on
> the subject. The Islamic formula, as written in Arabic, states that
> there is no god (indefinite article) (llh) but THE God (Allah) with
> the definite article. The word has its roots in the proto-Semitic
> common to Arabic, Aramaic, and Hebrew. Again, from an Islamic
> perspective, Abraham, Jesus and Mohammad prayed to the same God, but
> certainly the vocabulary was different.
>
> Your theologic milage may vary, but here is at least is a linguistic
> and historical basis generally accepted in academic circles.
>
>
>
> Jon W3JT (Retired Gov't Linguist with Masters in Middle East Area
> Studies.)
>
>

4850. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 01:55:37 UTC
From: Crazy George <munsch@atglobal.net>
Message-ID: <43151589_3@news1.prserv.net>
Source record: 71315

There is one additional step which seems, from many anecdotal references, to provide further help. Somewhere along the
cable route, run the coax through at least two sections of steel electrical conduit. Size immaterial, and grounding
optional. And they need not be connected together. Theories about why this works run from it forms a lossy coax for
the lightning induced wave on the outside, to impedance mismatch on the outside to eddy current losses in the steel.
Whatever the mechanism, I know of several locations where it seems to have reduced the damage from continuing lightning
strikes. And it is certainly cheap enough to include.

--
Crazy George
The attglobal.net address is a SPAM trap. Please change that part to: att<dot>biz properly formatted.

<wizard12342002@yahoo.com> wrote in message
news:1125443164.355999.136830@g47g2000cwa.googlegroups.com...
> Suppose I have an antenna some distance from the house. I run the
> transmission line down from the antenna, bury the line, run it
> underground to the house, place a lightning arrestor and ground just
> outside the house, then run the transmission line up the side of the
> house to the operating position on the second floor. Does anyone see a
> problem with this arrangement? I can't imagine that a lightning would
> "want" to travel back up toward the operating position when it has a
> good ground (at the arrestor) closer to the antenna.
>
> -JJ
>

4851. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 02:01:30 UTC
From: Crazy George <munsch@atglobal.net>
Message-ID: <4315158a_3@news1.prserv.net>
Source record: 71316

Broadcast stations are licensed at various power levels, and indeed, AM stations typically (except clear channel) change
power at sunrise and sunset. FM stations are also licensed at various powers, where the antenna height above average
terrain and antenna gain also enter into the radiated power equation. So manufacturers design an exciter which provides
a set of features desired by some large segment of their target customers, and with that a series of amplifies of
different power levels to meet the license parameters.

--
Crazy George
The attglobal.net address is a SPAM trap. Please change that part to: att<dot>biz properly formatted.
"CD" <mr.whatever@gmail.com> wrote in message
news:1125432356.646414.257460@o13g2000cwo.googlegroups.com...
> Hey all,
>
> I've been browsing around looking at AM / FM transmitters and I keep
> bumping into exciters. I'm curious. What is the difference between
> exciters and transmitters?
>
> I'm new to broadcasting, so I'm still getting used to the lingo.
>
> Thanks!
>

4852. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 03:05:05 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <y4qdndvym7b-g4jeRVn-pw@comcast.com>
Source record: 71317

All,

Below is a link to a site that claims to model coax radiation from a dipole.

http://www.smeter.net/feeding/feedpowr.php

I have compared several of the models from this site with other models and they are close.

I have tried several parameters and have gotten results from a very low level with a close match to over 90% of power radiated in the feedline when the dipole resonance is far from the transmit frequency.

We may use this model for a couple of things. It is available and it predicts radiation. That gives the opportunity to create a test. I for one are willing to experiment.

Dan

Reg Edwards wrote:
> I am truly disappointed with the long-running discourse on balanced
> and unbalanced feedlines and the power radiated therefrom. It's been
> going on for years.
>
> Nobody, especially poor novices, has ever learned anything from it.
>
> 99% of it is bafflegab.
>
> Few of us understand what on Earth is being waffled about. And those
> who do, prefer not to waste their time by joining in.
>
> The reason I'm making this seemingly outrageous statement is that
> NOBODY HAS EVER QUANTIFIED, not even once, what they are waffling
> about. This demonstrates a great ignorance of the subject.
>
> (Remember what Lord Kelvin said about the ability to measure and
> quantify what it is you are gabbing about and how that ability is
> directly related to what you really know about it.)
>
> Perhaps somebody might be prepared to state the power actually
> radiated from feedlines in watts. At least it may create the
> impression you know what you are talking about.
>
> It might possibly be at such a low level that, in the great majority
> of cases, it's not worth all the megabytes of bandwidth which are
> wasted on it.

>
> As an unbiased World Citizen, I now find myself half-way down a bottle
> of Merlo, 2000, a produce of France. But I have in reserve some decent
> Californian stuff.
>
> May I say how saddened I am to learn about the terrible disastrous
> storm which has befallen some of the Southern states.
> ----
> Reg, G4FGQ
>
>

4853. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 03:27:16 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <LJKdnfQGStoOvojeRVn-2Q@adelphia.com>
Source record: 71318

J. Teske wrote:
> On Tue, 30 Aug 2005 09:42:29 -0700, Matthew Weber
> <mweber@library.berkeley.edu> wrote:
>
>
>>Cecil Moore wrote:
>>
>>>Randy wrote:
>>>
>>>
>>>>The Christian God is not Allah, and Jesus never prayerd to Allah.
>
>
> In Arabic, (and I was a professional government Arabic linguist and
> Middle East specialist) "Allah" means "THE God". The "AL" in Allah is
> the definite article in Arabic and in the Arabic script, the definite
> article gets physically linked to the word it defines. The word "god"
> (lower case) (in Arabic is Lam, Lam, Tah Marbutah or LLH.
> Unfortunately I can't do Arabic script on my home computer. Also
> Arabic script does not have capital letters.) That word is
> transliterated LLH. (That "H" is really a glottal stop like the second
> "h" in "huh." There are several Arabic letters which can be
> transliterated "H" in Roman script. The Tah Marbutah, it looks like an
> "o" with two dots above it, has no real equivalent in Roman script,
> but is pronounced as a glottal stop. Like Hebrew, most vowels are not
> written out in Arabic except in linguistic texts and the Koran...they
> are simply diacrital marks. "LLH", without the definite article, was
> used to described dieties in Arabic long before Muhammad and the Koran
> came around in ca. 632 AD when the pre-Islamic Arabs were mainly
> animists.
>
> From an Islamic perspective, "Allah" is the same God as the God of
> Jews and the Christians. The Koran makes that quite clear. (The Koran
> also argues that the Jews didn't go far enough in their beliefs and
> the Christians got it wrong, but further argues that an Islamic
> believer is unlikely to convert them and they should be left alone and
> respected as "People of the Book.", the book in this case being the
> Pentateuch.) Whether you wish to accept that concept, of course, is a
> theological question. Most academic comparative theologists, even
> those at Christian and Jewish seminaries who are among the believing,
> do accept that premise (that the God is the same entity) even if they
> don't believe in the premise that God made the Koran his last word on
> the subject. The Islamic formula, as written in Arabic, states that
> there is no god (indefinite article) (llh) but THE God (Allah) with

> the definite article. The word has its roots in the proto-Semitic
> common to Arabic, Aramaic, and Hebrew. Again, from an Islamic
> perspective, Abraham, Jesus and Mohammad prayed to the same God, but
> certainly the vocabulary was different.
>
> Your theologic milage may vary, but here is at least is a linguistic
> and historical basis generally accepted in academic circles.

All very good, But can God make a buritto so hot that s/he can't eat
it? ;^)

- Mike -

4854. Need help to optmise a older Hy-Gain antenna for 2M SSB

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 03:44:26 UTC
From: W2RAC <w2racNOSPAM@cfl.rr.com>
Message-ID: <hn8ah1pk5sn6o98umeajgd08srbgrjqarq@4ax.com>
Source record: 71319

PLEASE, I need help.
If anyone can run the numbers,
I have tried Quick Yagi with little success.
I have a pair of the OLDER Hy-Gain 2m antenna's. There design was a
200ohm (I think) Hairpin match (to 50ohm) with the reflector and
directors INSULATED from the boom.
Current model for the last 10+ years is the elements are not insulated
from the boom.
I want to respace the elements, possilbing cutting down as it is
easier than lenghting them, to get the best
1. Beamwith/pattern
2. FB
3. Gain.

I am only going to use them on 2M SSB with a center freq of 144.250

Here are the measurments.
14' boom
El Lgth Space
D6 34.62500 32.25
D5 35.00000 26.75
D4 35.12500 25.75
D3 35.12500 28.25
D2 35.25000 22.25
D1 35.50000 12.75
Driven 32.75000 16.75
Ref 44.37500 1.75

Notes. Measured in Inches. Reflector is mounted 1.75 inch from end of
boom, D6 is 1.5 inch from end of boom. All Elements are INSULATED on
top of the boom. If needbe I can remove 1 director as the insulator
need replacing.

4855. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 03:59:55 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <oV9Re.342$ZL4.140@bignews4.bellsouth.net>
Source record: 71320

```
If its output is to an antenna, then its a transmitter
If the output is to an amplifier, then its an exciter.
Usually.
```

4856. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 04:18:02 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <naaRe.347$ZL4.176@bignews4.bellsouth.net>
Source record: 71321

Most folks use 100 watts or less so you can talk to most people with the same power level or less.
Antennas have the ability of amplifying the receiving station's signal to you as well as your signal to them. (gain)
building and designing Antennas is a way to learn and and enjoy the hobby.
contrary to what some may say, you don't have to be an engineer to enjoy the hobby.
If you need the amplifier (like on 80 meters at 9 pm when everyone is trying to claim a freq for an impromptu net) - then its usually less stressful to just switch it off until the band is less busy.

4857. Dual Band "on glass" antennas, good or bad?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 04:22:53 UTC
From: Michael Herron <hurricane145@worldnet.att.net>
Message-ID: <xgaRe.3851$kn4.1241@bgtnsc04-news.ops.worldnet.att.net>
Source record: 71322

What do youse guise think of on glass dualband 2/440 antennas? I have never used one but are now considering it as an option rather than drilling a hole in the roof of my new Chev Silverado. An on glass antenna would also be much easier to route the coax with rather than needing to remove the headliner. Anyone out there that was impressed or particularly dissappointed by on glass antenna performance? Any issues with mounting on a window that has the defog element in it? Thanks, Mike K7MH.

4858. Re: Dual Band "on glass" antennas, good or bad?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 05:04:58 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <rheah1pk9bjgaomhtu6b17jsdktnubn042@4ax.com>
Source record: 71323

On Wed, 31 Aug 2005 04:22:53 GMT, "Michael Herron"
<hurricane145@worldnet.att.net> wrote:

>What do youse guise think of on glass dualband 2/440 antennas? I have never
>used one but are now considering it as an option rather than drilling a hole
>in the roof of my new Chev Silverado. An on glass antenna would also be much
>easier to route the coax with rather than needing to remove the headliner.
>Anyone out there that was impressed or particularly dissappointed by on
>glass antenna performance? Any issues with mounting on a window that has the
>defog element in it? Thanks, Mike K7MH.
>

Used a Larsen 2 meter glass mount and was happy with the performance,
no experience with a dual band though. As to mounting it on the defog
element - bad idea.

Howard

4859. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 05:11:23 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96C2E2152FEF9spectrumhogstarbandn@207.106.93.175>
Source record: 71324

> Suppose I have an antenna some distance from the house. I run the
> transmission line down from the antenna, bury the line, run it
> underground to the house, place a lightning arrestor and ground just
> outside the house, then run the transmission line up the side of the
> house to the operating position on the second floor. Does anyone see a
> problem with this arrangement? I can't imagine that a lightning would
> "want" to travel back up toward the operating position when it has a
> good ground (at the arrestor) closer to the antenna.

Assuming your "ground" system outside the house is fairly substantial,
(not just a single rod), then I'd say your system is about as good as it
would get.....

However, with a direct strike, there is NO guaranty! Even a tiny
fraction of a gazillion volts can cause you grief. Best bet, disconnect
the coax in a storm, too!.

Ed K7AAT

4860. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 06:15:10 UTC
From: Steve Carras <gcarras@aol.com>
Message-ID: <1125468910.764550.90420@g49g2000cwa.googlegroups.com>
Source record: 71325
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

HWat the fuck?

An d btw regarding the age old query WHAT NEWSGROUP and
r.r.aa.a.,whatever th' fuck THAT is..

this is NOT rec.autos.chryslt

this is rec.music.rock-pop-r+b.1950s.You or someone must';ve
crossopsted tho.:)

4861. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 06:28:19 UTC
From: richardharrison@webtv.net
Message-ID: <666-43154E03-1184@storefull-3255.bay.webtv.net>
Source record: 71226

Roger, ZR3RC wrote:
"These dishes also have very narrow beamwidth making their aiming very precise."

You are right. Even an 18-invh dish needs a pretty good elevation angle in the UK to get best reception in the KU band from a satellite parked over the equator. I checked the Direct TV website. A geostationary synchronous bird flys at more than 22 000 miles above the earth`s surface. The horizontal distance is always a fraction of the altitude of the satellite, so the elevation angle for line of sight is substantial no matter what the azimuth. I am still puzzled as to why so many dishes I saw in Scotland were aimed so low.

Direct TV gives instructions on how to align a dish in their service. They send an initial elevation angle "tick-mark" setting to the customer. It is then up to him to acquire the bird and optimize setting the dish for best signal.

Direct TV has 3 satellites available to the customer, and though they are several degrees apart along the equator, one azimuth setting of the dish is expected to give satisfactory signals from all three.

Best regards, Richard Harrison, KB5WZI

4862. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 07:03:13 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <RCcRe.27827$Bc2.19422@trnddc06>
Source record: 71227

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:666-43154E03-1184@storefull-3255.bay.webtv.net...
> Roger, ZR3RC wrote:
> "These dishes also have very narrow beamwidth making their aiming very
> precise."
>
> You are right. Even an 18-invh dish needs a pretty good elevation angle
> in the UK to get best reception in the KU band from a satellite parked
> over the equator. I checked the Direct TV website. A geostationary
> synchronous bird flys at more than 22 000 miles above the earth`s
> surface. The horizontal distance is always a fraction of the altitude of
> the satellite, so the elevation angle for line of sight is substantial
> no matter what the azimuth. I am still puzzled as to why so many dishes
> I saw in Scotland were aimed so low.
>
> Direct TV gives instructions on how to align a dish in their service.
> They send an initial elevation angle "tick-mark" setting to the
> customer. It is then up to him to acquire the bird and optimize setting
> the dish for best signal.
>
> Direct TV has 3 satellites available to the customer, and though they
> are several degrees apart along the equator, one azimuth setting of the
> dish is expected to give satisfactory signals from all three.
>
> Best regards, Richard Harrison, KB5WZI

Richard

This a L band receiver. Their satelites for the ASR WS 201 pump out alot
of power with traveling wave tube amplifiers at about 1,400 MHz..
The OP may be on the far edge of the coverage "footprint" from the
satellite over Africa so his antenna positioning could be more critical that
locations closer to Central Africa.

Jerry

4863. The penis is way too delicate for masturbation

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 10:27:49 UTC
From: dgr1400@hotmail.com
Message-ID: <1125484069.701367.171620@g49g2000cwa.googlegroups.com>
Source record: 71228
Cross-posted to: rec.radio.amateur.antenna,alt.religion.wicca,alt.os.linux.slackware,alt.anti-ebay,rec.arts.sf.composition

.

4864. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 10:30:27 UTC
From: Dori A Schmetterling <ng@nospam.co.uk>
Message-ID: <431586c5$0$13695$cc9e4d1f@news-text.dial.pipex.com>
Source record: 71229
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

That's exactly what they did.

DAS

For direct contact replace nospam with schmetterling

"Steve Carras" <gcarras@aol.com> wrote in message
news:1125468910.764550.90420@g49g2000cwa.googlegroups.com...
[...]
>
> crossopsted
>

4865. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 11:35:26 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <FoadnZHij9SOC4jeRVn-pg@comcast.com>
Source record: 71230

Dave wrote:
> I am thinking of buying the Ameritron 600 watt solid state amp and was
> wondering what opinions you all may have of it. Thanks
>
>
How many $per watt for the Ameritron 600? Ameritron lists the ALS-600 at
$1299. For base station usage you need the power supply. Total package
list price of $1428. Or, $2.38 per watt [SSB]. [600 watt]

The AL-811H lists for $799 or $1.00 per watt [SSB]. [800 watt]

The AL-80B lists for $1349 or $1.39 per watt [SSB]. [1000 watt]

The AL-1500 lists for $3045 or $2.03 per watt [SSB]. [1500 watt]

If you are considering base usage the AL-811H is less than 1/2 S unit
below the AL-1500 at about 1/2 the price.

The ALS-600 is only 1 1/4 S units above a 100 watt base or mobile station.

I own the AL-80B. It has about 1/4 S unit below the AL-1500. [SSB]

Save some money and put it to good use on your antenna system.

4866. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 11:43:59 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <gq-dnTNeaJGJBYjeRVn-gQ@comcast.com>
Source record: 71231
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler

WCB wrote:

SNIPPED
>
> See Genesis 6, god has a number of sons,
> when the bible says gods, plural, it means that literally.
>
We have many, many gods: TV, Ham Radio, booze, drugs, women [or men],
jobs, pleasures, sex, money, power, fame, sleep, boats, second homes,
retirement accounts, etc.

We pursue these with most of our energy. None of these satisfy the deep
inner needs of humanity. When one recognizes this unsatisfied need then
one seeks the GOD!

4867. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 11:53:08 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <WNidnZ2dnZ2GkvuFnZ2dnaQHiN6dnZ2dRVn-0J2dnZ0@comcast.com>
Source record: 71232

Wes Stewart wrote:

SNIPPED

>
> Do you suppose Britain or any of the other developed nations will be
> sending any relief aid?

Only AFTER the middle east countries set the example by their donations!!

4868. Re: Need help to optmise a older Hy-Gain antenna for 2M SSB

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 11:55:46 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <6VgRe.4949$FW1.3713@newsread3.news.atl.earthlink.net>
Source record: 71233

> I want to respace the elements, possilbing cutting down as it is
> easier than lenghting them, to get the best
> 1. Beamwith/pattern
> 2. FB
> 3. Gain.
>
> I am only going to use them on 2M SSB with a center freq of 144.250
>
You have to design for one of teh above 3 items. It is not usaully possiable to have the best of all 3. In most areas there is not enough activity to worry about the RB or pattern. Just go for the gain.

4869. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 12:14:54 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <wvmdnci4RNLIAojeRVn-oA@comcast.com>
Source record: 71234

wizard12342002@yahoo.com wrote:

> Suppose I have an antenna some distance from the house. I run the
> transmission line down from the antenna, bury the line, run it
> underground to the house, place a lightning arrestor and ground just
> outside the house, then run the transmission line up the side of the
> house to the operating position on the second floor. Does anyone see a
> problem with this arrangement? I can't imagine that a lightning would
> "want" to travel back up toward the operating position when it has a
> good ground (at the arrestor) closer to the antenna.
>
> -JJ

90% of all lightning strikes can be described as less than 100,000 amperes peak, multi strike, 600 amperes continuing current at a critical E field
strength of more than 12,000 volts per meter pre strike. [USAF standard lightning
model].

A lightning arrestor uses a spark gap, AKA plasma, to protect the downstream equipment. The spark gap can be modeled as a non-linear zener diode with a higher ignition voltage than sustaining voltage. In other words the voltage needed to fire an arrested is great than the voltage after it fires.

The large currents set up magnetic fields in the local area that induce voltages INSIDE shielded enclosures [eg cables]. The current flowing on the outside of your coax induces voltages on the inner conductor [via transfer impedance, Vance et al, IEEE Transactions].

Conclusion: there are at least three possible sources of trouble from a lightning strike on or near your antenna: 1) transient from the lightning arrestor 2) induced, -L*di/dt, voltages inside intentional and unintentional loops, and, 3) transfer impedance induced voltages on center conductors of coax cables.

Solution: Ground everything you can using single ground point principles [just as you described], disconnect AND THROW antenna cables OUTSIDE of your house, unplug all equipment from power mains, buy good insurance, buy more insurance. [I just replaced my IC-756 Pro II with good insurance coverage][My IC-746 co-located 6 inches from the IC-756 Pro II did not fail from the same lightning strike][50+ years in ham radio and this is my first loss to lightning]

I live near Boston. We have a professional baseball team and the team has a 'unique personality' named Manny. There is a statement that 'Manny does what Manny does!'. Paraphrasing this saying for lightning: 'Lightnign does what lightning does!'

4870. Re: Dual Band "on glass" antennas, good or bad?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 12:16:26 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <wvmdncu4RNIzAojeRVn-oA@comcast.com>
Source record: 71235

Larsen 2/440 works great! For fringe area I find the Larsen a little
weak but 100% serviceable.

Michael Herron wrote:

> What do youse guise think of on glass dualband 2/440 antennas? I have never
> used one but are now considering it as an option rather than drilling a hole
> in the roof of my new Chev Silverado. An on glass antenna would also be much
> easier to route the coax with rather than needing to remove the headliner.
> Anyone out there that was impressed or particularly dissappointed by on
> glass antenna performance? Any issues with mounting on a window that has the
> defog element in it? Thanks, Mike K7MH.
>
>

4871. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 12:29:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125491556_1513@spool6-east.superfeed.net>
Source record: 71236

dansawyeror wrote:
> Below is a link to a site that claims to model coax radiation from a
> dipole.
>
> http://www.smeter.net/feeding/feedpowr.php

Please note that the third wire to ground creates the unbalance
that causes feedline radiation. You seem to be confusing cause
and effect. The cause of the feedline radiation is the existence
of that third wire, not SWR. All it proves is that feedline
radiation is caused by that third wire path which unbalances
the source currents.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4872. Antron 99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 12:30:07 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835431 5B0DF22@zetnet.co.uk>
Source record: 71237

Hi All.
I've still not found the way to seperate the outer caseing from the inner radiating wire, even looking at the web sites photo's and destructions. Originally I thought I'd found the answer, because there was a small blob of solder on the chromed metal collar that I thought terminated the wire, unfortunatly not so. I have removed all the fixing glue from around the collars and expected to be able to remove/seperate it but with no luck. Any of you guys got any pointers before I end up destroying what might be a potential good 10 Mtr antenna. Any body done this project and been successful? The web shots are reasonable to deduce what to do, but attaining it is very different. TIA Dave.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

4873. Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 13:01:38 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <QShRe.7184$ct5.91@fed1read04>
Source record: 71238

--
X-No-Archive: Yes

I've noticed that you've not posted here bragging
about that P.O.S. tower of yours still standing.

I wonder if your silence means Katrina got you?

Enquiring minds want to know

--
73 de Ken KGWX - Flying Pigs #-1055
Elecraft K2 #4913

4874. Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 13:48:06 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <JyiRe.2664$xw1.1794@bignews6.bellsouth.net>
Source record: 71239
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

I have been watching wwltv.com and wdsutv.com on the Internet.
I keep hearing about the lack of emergency services to communicate.
Does anyone know if any Amateur Operators are being engaged to assist?

--

4875. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 14:00:43 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4315B80B.4080106@comcast.net>
Source record: 71240

If it is true it proves that a driving a "bad" load can cause the coax feedline to radiate a significant portion of the feed energy. At this point I am not sure what word to use other then 'bad', but I due intend to perform experiments to measure and verify what is happening and the model.

Dan

Cecil Moore wrote:
> dansawyeror wrote:
>
>> Below is a link to a site that claims to model coax radiation from a
>> dipole.
>>
>> http://www.smeter.net/feeding/feedpowr.php
>
>
> Please note that the third wire to ground creates the unbalance
> that causes feedline radiation. You seem to be confusing cause
> and effect. The cause of the feedline radiation is the existence
> of that third wire, not SWR. All it proves is that feedline
> radiation is caused by that third wire path which unbalances
> the source currents.

4876. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 14:34:04 UTC
From: Dave <dave@telnet.com>
Message-ID: <wdjRe.293339$x96.259511@attbi_s72>
Source record: 71241

How does the ALS600 do when using with the Butternut HF9V vertical?

"Ham op" <hamop@comcast.net> wrote in message
news:FoadnZHij9SOC4jeRVn-pg@comcast.com...
> Dave wrote:
> > I am thinking of buying the Ameritron 600 watt solid state amp and was
> > wondering what opinions you all may have of it. Thanks
> >
> >
> How many $per watt for the Ameritron 600? Ameritron lists the ALS-600 at
> $1299. For base station usage you need the power supply. Total package
> list price of $1428. Or, $2.38 per watt [SSB]. [600 watt]
>
> The AL-811H lists for $799 or $1.00 per watt [SSB]. [800 watt]
>
> The AL-80B lists for $1349 or $1.39 per watt [SSB]. [1000 watt]
>
> The AL-1500 lists for $3045 or $2.03 per watt [SSB]. [1500 watt]
>
> If you are considering base usage the AL-811H is less than 1/2 S unit
> below the AL-1500 at about 1/2 the price.
>
> The ALS-600 is only 1 1/4 S units above a 100 watt base or mobile station.
>
> I own the AL-80B. It has about 1/4 S unit below the AL-1500. [SSB]
>
> Save some money and put it to good use on your antenna system.
>
>

4877. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 14:41:41 UTC
From: Bill KB3GUN <kb3gunlessspam@swronline.com>
Message-ID: <4315c194$0$50878$ec3e2dad@news.usenetmonster.com>
Source record: 71242

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
>I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>
>

Amateur Radio Volunteers Involved in Katrina Recovery
NEWINGTON, CT, Aug 30, 2005--Amateur Radio Emergency Service (ARES) volunteers in Louisiana are engaged in the Hurricane Katrina recovery effort, and more are waiting in the wings to help as soon as they can enter storm-ravaged zones. Winds and flooding from the huge storm wreaked havoc in Louisiana, Mississippi and Alabama after Katrina came ashore early Monday, August 29. Louisiana ARES Section Emergency Coordinator Gary Stratton, K5GLS, told ARRL that some 250 ARES members have been working with the Red Cross and the state's Office of Homeland Security Emergency Preparedness. Much of the affected areas remain flooded and dangerous, however. As a result, state officials have not allowed emergency or other units to enter the flooded zones, and there is still no communication with many coastal areas.

The West Gulf ARES Emergency Net remains active (7.285 MHz days/3.873 MHz nights), and radio amateurs not involved in emergency communication have been asked to keep these frequencies clear when the net is in session.

A high volume of health-and-welfare requests reportedly is slowing the passage of critical tactical and emergency traffic. The Salvation Army Team Emergency Radio Network (SATERN) on 14.265 MHz has been accepting and handling health-and-welfare inquiries on the air and via its Web site.

Full text here: http://www.arrl.org/news/stories/2005/08/30/1/?nc=1

73

4878. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 14:47:15 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <4igbh197rop3c0l9b13uj19lokv4lvvtlk@4ax.com>
Source record: 71243

On Tue, 30 Aug 2005 20:05:05 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>
>I have tried several parameters and have gotten results from a very low level
>with a close match to over 90% of power radiated in the feedline when the dipole
>resonance is far from the transmit frequency.
>
>We may use this model for a couple of things. It is available and it predicts
>radiation. That gives the opportunity to create a test. I for one are willing to
>experiment.
>
>Dan

Will you please describe the details of your experiment where you
claim 90% of the power is radiated from the feedline? How did you make
this measurement?

Walt, W2DU

4879. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 14:49:54 UTC
From: "R. Totale" <slangtruth@yahoo.com>
Message-ID: <1sgbh1112ukk8419noqmc36gl8vpecpvo0@4ax.com>
Source record: 71244
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Tue, 30 Aug 2005 10:29:43 -0700, John Smith
<assemblywizard@gmail.com> wrote:

>Allah I would more liken to satan--"The Great Deceiver"

I thought the Great Deceiver was Jon Anderson?

4880. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 15:16:04 UTC
From: Matthew Weber <mweber@library.berkeley.edu>
Message-ID: <df4hjq$13ts$1@agate.berkeley.edu>
Source record: 71245
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna
Body handling: HTML body converted to readable text

WCB wrote:

>Matthew Weber wrote:
>
>
>
>>Cecil Moore wrote:
>>
>>
>>
>>>Dave Althoff, Jr. wrote:
>>>
>>>
>>>
>>>>Do you believe the Bible to be the "Word of God"? Or the "Words of
>>>>God"?
>>>>
>>>>
>>>Actually, the word or words of "Elohim", i.e. Gods.
>>>Elohim is *PLURAL*. Yahweh was one of the Elohim.
>>>
>>>
>>Yes, Elohim is a plural word. It doesn't necessarily signify that
>>Yahweh is one of many gods. Some grammarians have referred to it as a
>>"plural of majesty".
>>
>>
>>
>
>See Genesis 6, god has a number of sons,
>when the bible says gods, plural, it means that literally.
>
>
>
How do you figure? That isn't in line with anything found elsewhere in
the Bible, or any respectable hermeneutic.

Does the Queen of England mean to imply that there is more than one of
her when she uses the "royal We"?

--

Matthew Weber

Curatorial Assistant

Jean Gray Hargrove Music Library

University of California, Berkeley

Some seeds fell by the way side.

The Holy Bible (The New Testament): The Gospel According to St Matthew, 13:4

4881. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 15:24:43 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <82bfc$4315cbbd$97d55b95$22854@ALLTEL.NET>
Source record: 71246

I have to call BS on this one Dan!

> On Tue, 30 Aug 2005 20:05:05 -0700, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
> >
> >I have tried several parameters and have gotten results from a very low
level
> >with a close match to over 90% of power radiated in the feedline when the
dipole
> >resonance is far from the transmit frequency.
> >
> >We may use this model for a couple of things. It is available and it
predicts
> >radiation. That gives the opportunity to create a test. I for one are
willing to
> >experiment.
> >
> >Dan
>

4882. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 15:39:52 UTC
From: richardharrison@webtv.net
Message-ID: <575-4315CF48-9@storefull-3257.bay.webtv.net>
Source record: 71248

Reg, G4FGQ wrote:
"Perhaps somebody might be prepared to state the power actually radiated from feedlines in watts."

Someone has. A feedline is a way to get energy from here to there. Usually we want to keep all the energy on or close to the line as it travels and lose as little as possible to radiation and conversion to heat.

Terman gives an approximate formula credited to Sterba and Feldman for radiation from a 2-wire nonresonant line, provided that the lengrh is at least 20X the spacing and the spacing is less than 0.1 wavelength:

Radiated power/Isquared=160(pi D/lambda)squared.

D/lambda is the spacing in wavelengths

I is the rms line current.

Terman notes that the parallel line radiates 4X the power that a doublet of length equal to the line spacing would, providing that the line and doublet currents are equal.

Terman provides a figure to be used to adjust the estimated radiation upwards for longer feedlines (up to 5 wavelengths), and for greater heights (up to 0.5 wavelength above the earth).

See 1943 "Radio Engineers` Handbook", page 194.

Best regards, Richard Harrison, KB5WZI

4883. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 15:40:25 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <704c5$4315cf6b$97d55b95$24217@ALLTEL.NET>
Source record: 71247
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Here is the latest info that I have:

Fred W4JLE DEC SEOC SC

The on-the-ground situation in SE Louisiana and SW Mississippi is as bad as television is reporting. Neither state is permitting disaster relief agencies into the affected areas except on a very limited basis and only then where conditions are stable. Nearly everyone is still staging as close by as possible and waiting.

The Louisiana SM (Mickey Cox K5MC) and SEC (Gary Stratton K5GLS) are in communications with state officials, who have directed them to NOT advertise for volunteers. Some volunteers have been requested, and these are being staged at the state EOC.

The situation for the Mississippi SM and SEC, Malcolm Keown W5XX, in Vicksburg MS is very uncertain. His station is completely on the ground and EchoLink repeaters in the area are off-the-air. Attempts to contact Assistant SMs have been unsuccessful.

An AB2M.net Amateur Radio operator registration web site has been setup and is ready to go public when approval is received. Some Amateur Radio operators are known to be traveling towards the affected areas with emergency services and disaster relief agencies as dedicated communications resources.

Despite everyone's nearly overwhelming desire to help, about all we can do right now is to make preparations for a prompt response when the officials finally give their approval. None of us know when that will occur.

Jerry Reimer, KK5CA
South Texas

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
> I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>
>
> --
>
>
>

4884. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 15:52:17 UTC
From: kegwasher <nodonkeys@soupnazisforpeace.com>
Message-ID: <c7dfb$4315d2f5$d1cc4914$21578@snip.allthenewsgroups.com>
Source record: 71249
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.shortwave

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
> I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>

The West Gulf ARES Emergency Net remains active (7.285 MHz days/3.873 MHz nights), and radio amateurs not involved in emergency communication have been asked to keep these frequencies clear when the net is in session. (this is an emergency H&W freq)

A high volume of health-and-welfare requests reportedly is slowing the passage of critical tactical and emergency traffic. The Salvation Army Team Emergency Radio Network (SATERN) on 14.265 MHz has been accepting and handling general health-and-welfare inquiries on the air and via its Web site.

4885. BBB Complaint # 414840 against Bozak Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 16:40:42 UTC
From: "anon bozak_antenna_sux.com"
Message-ID: <4315dd8a$1@tbbs.net>
Source record: 71209

COMPANY OR ORGANIZATION INFORMATION:

Bozak Antenna
8 Timberwick Drive
Clifton Park, NY United States 12065
(518)373-8069
www.bozak.org

COMPLAINT INFORMATION:

Complaint #: 414840
Complaint Type: Company (other than automobile)
Date Received: 9/12/2001
Primary Complaint Classification: Credit or Billing Disputes
Secondary Complaint Classification: Delivery Issues
Complaint:

To whom it may concern:

Mr. Steve G. Bozak was contacted in mid July 2001 regarding products (eg. antennas and coax cables) which were available for sale from his firm. Mr. Bozak quoted prices and then later changed the quote to reflect higher prices (25% higher) without my authorization. Mr. Bozak concludes that since I gave my credit card info that I agreed in principle with the altered price quote (which I did not agree too).

In addition to the order being 2-3 weeks late (because his firm did not have enough coax cable on hand), I then had to follow-up and specifically request a copy of the original billing invoice. When the invoice was finally received in late August, and after noting the higher prices charged, I immediately called and complain to Greg (Bozak's sales rep). Greg was informed that I received a lower price quote in mid July. Greg requested that I forward that quote which I did. After reviewing, Mr. Bozak wrote back on September 12, 2001 that "I am sorry for the confusion about the prices.... every effort has been made so this does not happen."

Thus, Mr. Bozak concedes that he (and his organization) screwed up but they want me to eat the higher costs. This is why this matter is being forwarded to your offices for recording and resolution purposes. Prospective customers need to know about Bozak's deplorable customer service/business practices.

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4886. BBB Complaint # 414840 against Bozak Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 16:51:58 UTC
From: your name <you@company.com>
Message-ID: <OelRe.18$HQ1.1852533@news.sisna.com>
Source record: 71250
Cross-posted to: rec.radio.amateur.antenna, rec.radio.amateur.digital.misc, rec.radio.amateur.equipment, rec.radio.amateur.misc, rec.radio.amateur.swap

COMPANY OR ORGANIZATION INFORMATION:

Bozak Antenna
8 Timberwick Drive
Clifton Park, NY United States 12065
(518)373-8069
http://www.bozak.org
http://members.tripod.com/~Bozak/HOMEPAGE.HTM

COMPLAINT INFORMATION:

Complaint #: 414840
Complaint Type: Company (other than automobile)
Date Received: 9/12/2001
Primary Complaint Classification: Credit or
Billing Disputes
Secondary Complaint Classification: Delivery
Issues
Complaint:

To whom it may concern:

Mr. Steve G. Bozak was contacted in mid July 2001
regarding products (eg.
antennas and coax cables) which were available
for sale from his firm. Mr.
Bozak quoted prices and then later changed the
quote to reflect higher prices
(25% higher) without my authorization. Mr. Bozak
concludes that since I gave
my credit card info that I agreed in principle
with the altered price quote
(which I did not agree too).

In addition to the order being 2-3 weeks late
(because his firm did not have
enough coax cable on hand), I then had to follow-
up and specifically request
a copy of the original billing invoice. When the
invoice was finally received
in late August, and after noting the higher
prices charged, I immediately
called and complain to Greg (Bozak's sales rep).
Greg was informed that I

received a lower price quote in mid July. Greg requested that I forward that
quote which I did. After reviewing, Mr. Bozak wrote back on September 12,
2001 that "I am sorry for the confusion about the prices.... every effort
has been made so this does not happen."

Thus, Mr. Bozak concedes that he (and his organization) screwed up but they
want me to eat the higher costs. This is why this matter is being forwarded
to your offices for recording and resolution purposes. Prospective customers
need to know about Bozak's deplorable customer service/business practices.

4887. Re: BBB Complaint # 414840 against Bozak Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 16:53:15 UTC
From: anon <WebPost@TBBS.net>
Message-ID: <4315e07b$1@tbbs.net>
Source record: 71210

http://members.tripod.com/~Bozak/HOMEPAGE.HTM

"anon" bozak_antenna_sux.com wrote:
>
>COMPANY OR ORGANIZATION INFORMATION:
>
>Bozak Antenna
>8 Timberwick Drive
>Clifton Park, NY United States 12065
>(518)373-8069
>www.bozak.org
>
>
>COMPLAINT INFORMATION:
>
>Complaint #: 414840
>Complaint Type: Company (other than automobile)
>Date Received: 9/12/2001
>Primary Complaint Classification: Credit or Billing Disputes
>Secondary Complaint Classification: Delivery Issues
>Complaint:
>
>To whom it may concern:
>
>Mr. Steve G. Bozak was contacted in mid July 2001 regarding products (eg.
>antennas and coax cables) which were available for sale from his firm. Mr.
>Bozak quoted prices and then later changed the quote to reflect higher prices
>(25% higher) without my authorization. Mr. Bozak concludes that since I
gave
>my credit card info that I agreed in principle with the altered price quote
>(which I did not agree too).
>
>In addition to the order being 2-3 weeks late (because his firm did not
have
>enough coax cable on hand), I then had to follow-up and specifically request
>a copy of the original billing invoice. When the invoice was finally received
>in late August, and after noting the higher prices charged, I immediately
>called and complain to Greg (Bozak's sales rep). Greg was informed that
I
>received a lower price quote in mid July. Greg requested that I forward
that
>quote which I did. After reviewing, Mr. Bozak wrote back on September 12,
>2001 that "I am sorry for the confusion about the prices.... every effort
>has been made so this does not happen."

>
>Thus, Mr. Bozak concedes that he (and his organization) screwed up but they
>want me to eat the higher costs. This is why this matter is being forwarded
>to your offices for recording and resolution purposes. Prospective customers
>need to know about Bozak's deplorable customer service/business practices.
>
End

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4888. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 16:55:00 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11hbo7dbbv93k3c@corp.supernews.com>
Source record: 71251

Ken Bessler wrote:

> --
> X-No-Archive: Yes
>
> I've noticed that you've not posted here bragging
> about that P.O.S. tower of yours still standing.
>
> I wonder if your silence means Katrina got you?
>
> Enquiring minds want to know
>
> --
> 73 de Ken KGï¿½WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>

Since he lives about 190 miles NNE of NO my guess is that not only is the TOWER OF UNION MS down, but he lost the trees that were attempting to hold the TOU up. He is most likely out of electricity and telephone (internet connection) lines.

If he suffered any damages I do hope for his recovery.

Dave WD9BDZ

4889. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 17:03:04 UTC
From: richardharrison@webtv.net
Message-ID: <1079-4315E2C8-71@storefull-3252.bay.webtv.net>
Source record: 71252

Dan wrote:
"We may use this model for a couple of things."

Dan attached a posting from Reg, G4FGQ.

Reg`s description of the "Centre-Fed Dipole - Radiation from Coaxial Feedline" tells it as it is.

About 45 years ago, I (Richard Harrison) worked for a company exploring for oil in the Chaco Jungle of Bolivia. Communications were by HF radio at all sites in the jungle and at offices in Cochabamba and La Paz. Radios were Collins 30K-5 transmitters and 51-J receivers at all locations. All antennas were center-fed 1/2-wave dipoles up only about 1/4-wave due to economics and generally were broadside to some favored direction. The feedline was also about 1/4-wavelength for convenience, but the antennas loaded, took a lot of power and the 30-K finals dipped OK. Soil at the radio sites was mostly sand and didn`t really ground anything very much. The length of the coax presented a high impedance to the outside shield of the coax cable at the dipole, whatever it might have been.

At 1/4-wave antenna height, directionality was small and whatever the coax radiated, it likely filled-in any nulls.

All stations could clearly hear all others all day, so the operators were satisfied. Much of the radiation was straight up so we likely bebefitted from near vertical incidence propagation. The transmitters shook the aether with their power, but the 51-J has a nice dial but not much else. Nevertheless, everything worked.

My previous employer had given away all its 51-J`s, they were so sorry, and replaced them with Hammarland SP-600`s. I didn`t take a 51-J, I was using one of the Super Pro`s.
My experience is anecdotal.

Best regards, Richard Harrison, KB5WZI

4890. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 17:22:35 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87psru81ic.fsf@qmc.ph.msstate.edu>
Source record: 71253

>Since he lives about 190 miles NNE of NO my guess is that not only is
>the TOWER OF UNION MS down, but he lost the trees that were attempting
>to hold the TOU up. He is most likely out of electricity and telephone
>(internet connection) lines.

The storm was quite strong even in central MS, probably still category 1
there. Many even "built-by-the-book" towers would be destroyed from there
south, especially if trees fell across the guy wires.

Here in northeast MS (Starkville) Katrina was at strong tropical
storm strength. Several trees in my yard were blown over. Fortunately
my two towers (100',70') survived and the only damage was some
bent/broken 15m yagi elements from flying tree branches.

Tor
N4OGW
Starkville, MS

4891. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 18:21:23 UTC
From: Matthew Weber <mweber@library.berkeley.edu>
Message-ID: <df4sfg$171v$1@agate.berkeley.edu>
Source record: 71254
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler
Body handling: HTML body converted to readable text

Cecil Moore wrote:

> Tony Elka wrote:
>
>> You do realize that Texas was part of Mexico before we stole it?
>
>
> Texas was actually stolen four or five times and one
> time Mexico was the thief when they stole Texas from
> Spain. Texas was originally stolen by the Europeans
> from the Indians who thought owning land was a ridiculous
> concept.

And look where that attitude got them!

--

Matthew Weber

Curatorial Assistant

Jean Gray Hargrove Music Library

University of California, Berkeley

Some seeds fell by the way side.

The Holy Bible (The New Testament): The Gospel According to St Matthew, 13:4

4892. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 18:44:07 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <XTmRe.7294$__1.2082@trnddc07>
Source record: 71255

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1125491556_1513@spool6-east.superfeed.net...
> dansawyeror wrote:
>> Below is a link to a site that claims to model coax radiation from a
>> dipole.
>>
>> http://www.smeter.net/feeding/feedpowr.php
>
> Please note that the third wire to ground creates the unbalance
> that causes feedline radiation. You seem to be confusing cause
> and effect. The cause of the feedline radiation is the existence
> of that third wire, not SWR. All it proves is that feedline
> radiation is caused by that third wire path which unbalances
> the source currents.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil

How wrong would it be to say that the *coax* part of the line doesnt
radiate at all?
I see this as a situation where the *outer shield* of a transmission line
is conducting current that radiates.
It seems that a "balanced" antenna that is comprised of a single
conductor and a L shaped conductor that includes the outer conductor of the
coax, could be fed with a balanced line for modeling.

Jerry

4893. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 18:46:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hbung9072oqa1@corp.supernews.com>
Source record: 71256

The calculations you quote assume equal and opposite (i.e., purely differential mode) currents in the feedline conductors. The topic under discussion is radiation due to common mode current.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "Perhaps somebody might be prepared to state the power actually radiated
> from feedlines in watts."
>
> Someone has. A feedline is a way to get energy from here to there.
> Usually we want to keep all the energy on or close to the line as it
> travels and lose as little as possible to radiation and conversion to
> heat.
>
> Terman gives an approximate formula credited to Sterba and Feldman for
> radiation from a 2-wire nonresonant line, provided that the lengrh is at
> least 20X the spacing and the spacing is less than 0.1 wavelength:
>
> Radiated power/Isquared=160(pi D/lambda)squared.
>
> D/lambda is the spacing in wavelengths
>
> I is the rms line current.
>
> Terman notes that the parallel line radiates 4X the power that a doublet
> of length equal to the line spacing would, providing that the line and
> doublet currents are equal.
>
> Terman provides a figure to be used to adjust the estimated radiation
> upwards for longer feedlines (up to 5 wavelengths), and for greater
> heights (up to 0.5 wavelength above the earth).
>
> See 1943 "Radio Engineers` Handbook", page 194.
>
> Best regards, Richard Harrison, KB5WZI
>

4894. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 18:50:13 UTC
From: "Percival P. Cassidy" <Nobody@NotMyISP.net>
Message-ID: <DZmRe.2226$UQ1.521@fe03.lga>
Source record: 71257
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

My XYL said she saw/heard Larry King telling people last night that ham radio could be the best way of getting information to and from the affected areas.

I have been listening to SATERN on 14.265 handling emergency/H&W traffic.

"Perce"
(aka Alan NV8A)

On 08/31/05 09:48 am laborkei tossed the following ingredients into the ever-growing pot of cybersoup:

> I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?

4895. harmonic filters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 19:32:55 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1125516775.753516.8850@g49g2000cwa.googlegroups.com>
Source record: 71258

Hello all,

I was just doing some more reading and came up with a few more questions. It seems that I failed to take into account adding a harmonic filter between my antenna and RF amp. However, in regards to low power transmission (100W), would I still need harmonic filters?

I saw a design for a 1kW AM system and it had several huge harmonic filters. I think the total weight was about 60 lbs. I want to keep my system as small as possible.

Is there an alternative setup to get rid of the harmonic filters?

Thanks!

4896. Re: harmonic filters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 19:44:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Tr2dnc-CWOUFlYveRVn-hw@crocker.com>
Source record: 71259

use a decent radio and you shouldn't need extra filters.

"CD" <mr.whatever@gmail.com> wrote in message
news:1125516775.753516.8850@g49g2000cwa.googlegroups.com...
> Hello all,
>
> I was just doing some more reading and came up with a few more
> questions. It seems that I failed to take into account adding a
> harmonic filter between my antenna and RF amp. However, in regards to
> low power transmission (100W), would I still need harmonic filters?
>
> I saw a design for a 1kW AM system and it had several huge harmonic
> filters. I think the total weight was about 60 lbs. I want to keep my
> system as small as possible.
>
> Is there an alternative setup to get rid of the harmonic filters?
>
> Thanks!
>

4897. Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 20:13:48 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1125519228.281357.3190@z14g2000cwz.googlegroups.com>
Source record: 71260

My old Cushcraft A3 is more than likely due for a take down and refurbish. Ive not really touched it in a long time and have never opened the traps. 15m is suffering so I may have a bad trap.

So, I did a net search and not too many have posted how its done. SOOOO, with that I come hat in hand for hints/tips etc from those that have went there.

Scotty N7HJ

4898. Re: harmonic filters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 20:29:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hc4ooiq4rqg3f@corp.supernews.com>
Source record: 71261

What sort of system are you building? Amateur radio? CB? Pirate AM broadcasting?

Roy Lewallen, W7EL

CD wrote:
> Hello all,
>
> I was just doing some more reading and came up with a few more
> questions. It seems that I failed to take into account adding a
> harmonic filter between my antenna and RF amp. However, in regards to
> low power transmission (100W), would I still need harmonic filters?
>
> I saw a design for a 1kW AM system and it had several huge harmonic
> filters. I think the total weight was about 60 lbs. I want to keep my
> system as small as possible.
>
> Is there an alternative setup to get rid of the harmonic filters?
>
> Thanks!
>

4899. Re: harmonic filters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 20:46:44 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1125521204.011448.291450@g14g2000cwa.googlegroups.com>
Source record: 71262

It's a radio system use for missionary work in third world countries.
We are not too worried about breaking FCC rules since we will be using
them outside the US. My concern with the harmonic frequencies is mainly
protecting the transmission system and also not interfere with other
sister stations. From what I've read so far, some harmonic frequencies
might couple to the transmitter input and that can affect the output.

I guess what I really don't know about is how exactly harmonics affect
the system... and if a DSP based transmitter would also need these
bulky harmonics filter.

Hmm..also, wouldn't the harmonic filters normally be part of an antenna
tuning unit?

4900. Re: Antron 99

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 20:54:57 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <%MoRe.3021$xw1.2337@bignews6.bellsouth.net>
Source record: 71263

Why are you wanting to take it apart ? Its unclear what you want to do.
I believe its a sealed unit - and I know it makes a good 10-meter vertical.
Hook it up and try it - if it works, then use it - if not then get a new one
or use a wire antenna.
Its just an end-fed half wave. But the antenna as a package is light-weight,
easy to adjust (with the rings), and easy to deploy. That makes it popular -
but the hype about a lot of gain is just that - hype.

"Dave Piggin" <d.piggin@zetnet.co.uk> wrote in message
news:3130303038373835431 5B0DF22@zetnet.co.uk...
> Hi All.
> I've still not found the way to seperate the outer caseing from the
> inner radiating wire, even looking at the web sites photo's and
> destructions. Originally I thought I'd found the answer, because there
> was a small blob of solder on the chromed metal collar that I thought
> terminated the wire, unfortunatly not so. I have removed all the fixing
> glue from around the collars and expected to be able to remove/seperate
> it but with no luck. Any of you guys got any pointers before I end up
> destroying what might be a potential good 10 Mtr antenna. Any body done
> this project and been successful? The web shots are reasonable to deduce
> what to do, but attaining it is very different. TIA Dave.
>
> --
> Amateur Radio Call Sign M1BTI, Located in Manchester England.
> Locator square IO83TK
> Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
> Located at Umist, University Of Manchester Institute For Science And
> Technology
> Share What You Know, Learn What You Dont.

4901. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 20:55:43 UTC
From: Rick Scott <RickN7HJ@gmail.com>
Message-ID: <1125521743.045175.230160@f14g2000cwb.googlegroups.com>
Source record: 71264

Hope not according to wunderground.com Union MS only recieved wind
gusts of 51mph.

http://www.wunderground.com/history/airport/KMEI/2005/8/29/DailyHistory.html

Chart for monday the 29th

Wind
Wind Speed 15 mph / 24 km/h (ENE)
Max Wind Speed 32 mph / 52 km/h
Max Gust Speed 51 mph / 82 km/h
Visibility 5 miles / 8 kilometers
Events Rain

4902. Re: Dual Band "on glass" antennas, good or bad? BAD

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 20:56:29 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <rOoRe.3022$xw1.2740@bignews6.bellsouth.net>
Source record: 71265

BAD
"Michael Herron" <hurricane145@worldnet.att.net> wrote in message
news:xgaRe.3851$kn4.1241@bgtnsc04-news.ops.worldnet.att.net...
> What do youse guise think of on glass dualband 2/440 antennas? I have
never
> used one but are now considering it as an option rather than drilling a
hole
> in the roof of my new Chev Silverado. An on glass antenna would also be
much
> easier to route the coax with rather than needing to remove the headliner.
> Anyone out there that was impressed or particularly dissappointed by on
> glass antenna performance? Any issues with mounting on a window that has
the
> defog element in it? Thanks, Mike K7MH.
>
>

4903. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:14:59 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11hc7eur7jarse1@corp.supernews.com>
Source record: 71266

Ken Bessler wrote:
> X-No-Archive: Yes
>
> "Rick Scott" <RickN7HJ@gmail.com> wrote in message
> news:1125521743.045175.230160@f14g2000cwb.googlegroups.com...
>
>>Hope not according to wunderground.com Union MS only recieved wind
>>gusts of 51mph.
>>
>>http://www.wunderground.com/history/airport/KMEI/2005/8/29/DailyHistory.html
>>
>>Chart for monday the 29th
>>
>>Wind Speed 15 mph / 24 km/h (ENE)
>>Max Wind Speed 32 mph / 52 km/h
>>Max Gust Speed 51 mph / 82 km/h
>>Visibility 5 miles / 8 kilometers
>
>
>
> If that's true and accurate then where is Charlie posting
> "Look! Look! You jerks berated my super fine installation
> and look! Look! It survived a hurricane!!! See the before
> and after pics!".
>
> --
> 73 de Ken KGï¿½WX - Flying Pigs #-1055
> Elecraft K2 #4913
>
>
Lets not berate the man until it is determined whether he is off the air
due to embarrassment or to downed power and phone lines. Remember that
much of the state is out of power.

Dave WD9BDZ

4904. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:17:42 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11hc7jvdh8sv35e@corp.supernews.com>
Source record: 71267

Jerry Martes wrote:

> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:1125491556_1513@spool6-east.superfeed.net...
>
>>dansawyeror wrote:
>>
>>>Below is a link to a site that claims to model coax radiation from a
>>>dipole.
>>>
>>>http://www.smeter.net/feeding/feedpowr.php
>>
>>Please note that the third wire to ground creates the unbalance
>>that causes feedline radiation. You seem to be confusing cause
>>and effect. The cause of the feedline radiation is the existence
>>of that third wire, not SWR. All it proves is that feedline
>>radiation is caused by that third wire path which unbalances
>>the source currents.
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>
>
> Cecil
>
> How wrong would it be to say that the *coax* part of the line doesnt
> radiate at all?
> I see this as a situation where the *outer shield* of a transmission line
> is conducting current that radiates.
> It seems that a "balanced" antenna that is comprised of a single
> conductor and a L shaped conductor that includes the outer conductor of the
> coax, could be fed with a balanced line for modeling.
>
> Jerry
>
>
What I was taught is that in a properly installed antenna system the
coax will not radiate. If the antenna is not properly matched to the
coax you get current flow along the outside of the coax shield.

Dave WD9BDZ

4905. Re: Exciter & Transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:20:41 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1125523241.208041.36860@z14g2000cwz.googlegroups.com>
Source record: 71268

Thanks for the reply, all!

I was calling some companies just to ask around. It seems like when it comes to AM exciters I would still need to hook it up to an AM transmitter. However, for FM exciters, I can directly hook them up to a power amp.

4906. Re: harmonic filters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:26:50 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <431620fa_2@newsfeed.slurp.net>
Source record: 71269

"CD" wrote
> My concern with the harmonic frequencies is mainly
> protecting the transmission system and also not interfere with other
> sister stations. From what I've read so far, some harmonic frequencies
> might couple to the transmitter input and that can affect the output.

The usual mechanism is when the 2nd harmonic of an active transmitter (F1) mixes with the fundamental of a nearby station on F2 to produce an IM product at 2*F1-F2. This can occur in a nonlinear output stage of F1, and harmonic filters normally have no affect on the in-band IM product that is generated.

The control is to filter the external fundamental signals from entering F1's output stage via the antenna connection, so they are not present there to generate spurs.

> Hmm..also, wouldn't the harmonic filters normally be
> part of an antenna tuning unit?

It is more closely connected with the harmonic "signature" of a given tx, and so is usually supplied as part of the tx system. The tx OEM has to certify that his tx meets specs for harmonics and spurs, and couldn't do that unless the performance of the filtering network was under his control.

RF

Visit http://rfry.org for FM transmission system papers.

4907. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:30:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125523982_199@spool6-east.superfeed.net>
Source record: 71270

dansawyeror wrote:
> If it is true it proves that a driving a "bad" load can cause the coax
> feedline to radiate a significant portion of the feed energy.

You need to define "bad load". A "bad load" for unbalanced line
is a balanced load, no matter what the impedance. A "bad load"
for balanced line is an unbalanced load, no matter what the
impedance.

The third wire used in the aforementioned software is designed
to unbalance the system, no matter what the impedance.

To illustrate a balanced system, a fourth wire needs to be
added in parallel with and about four inches away from the
third wire. Then compare the currents in the third and fourth
wires under conditions of changing loads.

> I due intend to perform experiments to measure and verify what is
> happening and the model.

Please feel free to experiment but at least a dozen participants
of this newsgroup already know what is happening and have been
trying to tell you.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4908. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:33:58 UTC
From: Dan Richardson <>
Message-ID: <bf8ch15382iam387nu30hgh2kf0n936tmk@4ax.com>
Source record: 71141

On Wed, 31 Aug 2005 16:17:42 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>What I was taught is that in a properly installed antenna system the
>coax will not radiate. If the antenna is not properly matched to the
>coax you get current flow along the outside of the coax shield.
>
>Dave WD9BDZ

Please read:

http://www.w2du.com/r2ch21.pdf

4909. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:38:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125524456_207@spool6-east.superfeed.net>
Source record: 71271

Jerry Martes wrote:
> How wrong would it be to say that the *coax* part of the line doesnt
> radiate at all?

The physical construction of the coax (ideal version) ensures
that the inside of the coax doesn't radiate because, for
ideal coax, the internal currents are perfectly balanced.
Any unbalance in the currents is forced to the outside shield
by the laws of physics.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4910. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:42:51 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <874q95hjfo.fsf@qmc.ph.msstate.edu>
Source record: 71273

>Hope not according to wunderground.com Union MS only recieved wind
>gusts of 51mph.
>
>http://www.wunderground.com/history/airport/KMEI/2005/8/29/DailyHistory.html
>
>Chart for monday the 29th

The winds I'm sure were stronger than that.

Note the station stopped recording (broken?) at 1pm. They probably saw
much higher wind speeds. Even up at Tupelo (substitute KTUP in above URL)
there was a gust of 53 mph recorded. Also try Birmingham BHM, which is
quite a ways to the east.

Tor

4911. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:46:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125524968_215@spool6-east.superfeed.net>
Source record: 71272

David G. Nagel wrote:
> What I was taught is that in a properly installed antenna system the
> coax will not radiate. If the antenna is not properly matched to the
> coax you get current flow along the outside of the coax shield.

Is "matched" the correct word to use there? A 50 ohm balanced dipole
is perfectly "matched" to 50 ohm coax but the feedline will likely
radiate. A 50 ohm balanced dipole is not "matched" to 600 ohm balanced
line but with proper attention to details the feedline will like not
radiate much.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4912. RE: Amplifier Opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 21:58:47 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <sKpRe.1982$mH.1643@fed1read07>
Source record: 71274

> Someone wrote "You don't need a linear unless you're on 80 meters - then
> you really need a
> biggie"

Agree and disagree

For example, let's start with a 100-Watt exciter then add an afterburner of 800 Watts. Doubling power is 3 dB and an S-unit is 6dB. So from 100W to 200W is 3dB, 200W to 400W is 3 more dB, and 400W to 800W is 3 more dB for a total of 9 dB or only 1-1/2 S-Units possible increase on the receiving end. One can achieve almost the same result with a 3-element beam.

BUT Although one and a half S-Units does give a little more oomph while working a pileup, it really comes into play for weak signal work where if it gets you just up out of the noise on the receiving end, two way QSO's may be possible where without the linear, the DX just can't copy. I can attest to this many times on any band.

On the other hand I have worked DXCC - QRP - 5 Watts

A lot depends on propagation (of course)

--
CL -- I doubt, therefore I might be !

4913. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 22:02:36 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <0OpRe.31498$yv2.4098@trnddc04>
Source record: 71275

"David G. Nagel" <nagel@core.com> wrote in message
news:11hc7jvdh8sv35e@corp.supernews.com...
> Jerry Martes wrote:
>
>> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
>> news:1125491556_1513@spool6-east.superfeed.net...
>>
>>>dansawyeror wrote:
>>>
>>>>Below is a link to a site that claims to model coax radiation from a
>>>>dipole.
>>>>
>>>>http://www.smeter.net/feeding/feedpowr.php
>>>
>>>Please note that the third wire to ground creates the unbalance
>>>that causes feedline radiation. You seem to be confusing cause
>>>and effect. The cause of the feedline radiation is the existence
>>>of that third wire, not SWR. All it proves is that feedline
>>>radiation is caused by that third wire path which unbalances
>>>the source currents.
>>>--
>>>73, Cecil http://www.qsl.net/w5dxp
>>
>>
>> Cecil
>>
>> How wrong would it be to say that the *coax* part of the line doesnt
>> radiate at all?
>> I see this as a situation where the *outer shield* of a transmission
>> line is conducting current that radiates.
>> It seems that a "balanced" antenna that is comprised of a single
>> conductor and a L shaped conductor that includes the outer conductor of
>> the coax, could be fed with a balanced line for modeling.
>>
>> Jerry
> What I was taught is that in a properly installed antenna system the coax
> will not radiate. If the antenna is not properly matched to the coax you
> get current flow along the outside of the coax shield.
>
> Dave WD9BDZ

Dave

I'd agree with your statement if "matched" doesnt refer to *impedance*
match.

Jerry

4914. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 22:07:34 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <GSpRe.31538$yv2.3061@trnddc04>
Source record: 71176

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1125524456_207@spool6-east.superfeed.net...
> Jerry Martes wrote:
>> How wrong would it be to say that the *coax* part of the line doesnt
>> radiate at all?
>
> The physical construction of the coax (ideal version) ensures
> that the inside of the coax doesn't radiate because, for
> ideal coax, the internal currents are perfectly balanced.
> Any unbalance in the currents is forced to the outside shield
> by the laws of physics.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil

I failed to emphisze that any current on the outside of a coaxial
transmission line are out of the bounds of the defination of Coax.

Jerry

4915. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 22:42:27 UTC
From: Bill Putney <bptn@kinez.net>
Message-ID: <df5bol$lk8$1@news.isdn.net>
Source record: 71182
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler

Matthew Weber wrote:

> Cecil Moore wrote:
>
>> Tony Elka wrote:
>>
>>> You do realize that Texas was part of Mexico before we stole it?
>>
>>
>>
>> Texas was actually stolen four or five times and one
>> time Mexico was the thief when they stole Texas from
>> Spain. Texas was originally stolen by the Europeans
>> from the Indians who thought owning land was a ridiculous
>> concept.
>
>
> And look where that attitude got them!

I've always been puzzled why people thought that how things end up was a surprise. If you took someone who somehow was not aware of the history and said to them: You've got two societies of people on the same land: One group does not believe in private property ownership, and the other one does - which one do you think over time will end up taking posession of and claiming - how else can you put it? - *ownership* of that land? I'm not saying it's right, or that how it was done was right, but I often question the honesty and intelligence of people that act appalled at how it ended up. I mean - it should be a required question on any intelligence test, and anyone who anwered that the group that didn't believe in private property ownership would end up displacing the group that did should be put in the moron category regardless of how they answered any other questions.

Bill Putney
(To reply by e-mail, replace the last letter of the alphabet in my address with the letter 'x')

4916. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 22:55:40 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1125528940.298502.291660@g14g2000cwa.googlegroups.com>
Source record: 71177

Reg wrote, most lucidly,
"Found a corkscrew and I've just opened the Californian. I'd like to try some of your Oregon stuff - do you have any. ;o) "

Why, yes, I do. Picked up a decent stash over the Indepencence Day (that's US independence from England...) holiday a couple months ago, at a nice wine and arts fair in Eugene.

Do _you_ have any? Are there any good English wines I should try when I'm next in the neighborhood?? (Did Monty Python ever do a skit about English wines to match the one they did about "Fine Australian Table Wines"?)

Beats babbling on about old wives any day.

Cheers,
Tom

4917. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 22:59:58 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <ODqRe.5157$FW1.3371@newsread3.news.atl.earthlink.net>
Source record: 71178
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.shortwave

"kegwasher" <nodonkeys@soupnazisforpeace.com> wrote in message
news:c7dfb$4315d2f5$d1cc4914$21578@snip.allthenewsgroups.com...
>
> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
> news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
>> I have been watching wwltv.com and wdsutv.com on the Internet.
>> I keep hearing about the lack of emergency services to communicate.
>> Does anyone know if any Amateur Operators are being engaged to assist?
>>
>
> The West Gulf ARES Emergency Net remains active (7.285 MHz days/3.873 MHz
> nights), and radio amateurs not involved in emergency communication have
> been asked to keep these frequencies clear when the net is in session.
> (this is an emergency H&W freq)
>
> A high volume of health-and-welfare requests reportedly is slowing the
> passage of critical tactical and emergency traffic. The Salvation Army
> Team
> Emergency Radio Network (SATERN) on 14.265 MHz has been accepting and
> handling general health-and-welfare inquiries on the air and via its Web
> site.
>

I was able to pass a Emergency message via the SATERN net on 14.265 . A
station in the area was able to relay it via the Coast Guard. Ham radio is
alive and well.

Dan/W4NTI

4918. Re: Amplifier Opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:10:01 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <dNqRe.4723$_84.4417@newsread1.news.atl.earthlink.net>
Source record: 71179

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:sKpRe.1982$mH.1643@fed1read07...
> > Someone wrote "You don't need a linear unless you're on 80 meters - then
> > you really need a
> > biggie"
>
>
> Agree and disagree
>
> For example, let's start with a 100-Watt exciter then add an afterburner
of
> 800 Watts. Doubling power is 3 dB and an S-unit is 6dB. So from 100W to
200W
> is 3dB, 200W to 400W is 3 more dB, and 400W to 800W is 3 more dB for a
total
> of 9 dB or only 1-1/2 S-Units possible increase on the receiving end. One
> can achieve almost the same result with a 3-element beam.
>
>
Not many can put up a 3 element beam for 80 meters, 40 meters either. Even
a rotatable dipole is not an option for most on 80. The amplifier will sit
on the same desk as the rig in most cases.
Granted it will not do anything for my receive.

I don't use my amp very much. It did come in handy as I was talking to a
portable station last Sunday morning on 80 meters. He had a bunch of static
and qrm (Shelby hamfest was where he was at) and by me running an amp I
could get over the local noise he had.

4919. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:11:36 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <NqOdnbmOQvihpIveRVn-jA@comcast.com>
Source record: 71180

7.78 Db BETTER [+1 1/4 S unit] than 100 watts.

Upgrade the vertical to a beam and the net gain can be as high as +19.78
dB [3+ S units] on the path:
1] + 6 dB in receive
2] + 6 dB in transmit
3] + 7.78 dB for the amplifier.

For $1400, a beam has a much better return on investment than an
amplifier by itself.

The #1 rule I teach new or aspiring hams is "Your station efficiency,
and your enjoyment, is directly proportional to your antenna."

Dave wrote:
> How does the ALS600 do when using with the Butternut HF9V vertical?
>
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:FoadnZHij9SOC4jeRVn-pg@comcast.com...
>
>>Dave wrote:
>>
>>>I am thinking of buying the Ameritron 600 watt solid state amp and was
>>>wondering what opinions you all may have of it. Thanks
>>>
>>>
>>
>>How many $per watt for the Ameritron 600? Ameritron lists the ALS-600 at
>>$1299. For base station usage you need the power supply. Total package
>>list price of $1428. Or, $2.38 per watt [SSB]. [600 watt]
>>
>>The AL-811H lists for $799 or $1.00 per watt [SSB]. [800 watt]
>>
>>The AL-80B lists for $1349 or $1.39 per watt [SSB]. [1000 watt]
>>
>>The AL-1500 lists for $3045 or $2.03 per watt [SSB]. [1500 watt]
>>
>>If you are considering base usage the AL-811H is less than 1/2 S unit
>>below the AL-1500 at about 1/2 the price.
>>
>>The ALS-600 is only 1 1/4 S units above a 100 watt base or mobile station.
>>
>>I own the AL-80B. It has about 1/4 S unit below the AL-1500. [SSB]
>>

>>Save some money and put it to good use on your antenna system.
>>
>>
>
>
>

4920. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:14:11 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <NqOdnbiOQvhKpIveRVn-jA@comcast.com>
Source record: 71181
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler

Matthew Weber wrote:

> Cecil Moore wrote:
>
>> Tony Elka wrote:
>>
>>> You do realize that Texas was part of Mexico before we stole it?
>>
>>
>>
>> Texas was actually stolen four or five times and one
>> time Mexico was the thief when they stole Texas from
>> Spain. Texas was originally stolen by the Europeans
>> from the Indians who thought owning land was a ridiculous
>> concept.
>
>
> And look where that attitude got them!

Yep!! They rob the white man today ... Foxwoods, Mohegan Sun, etc.

For the uninitiated, Foxwoods et al are gambling casinos on indian
reservations.
>

4921. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:20:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hceqr7be86i3d@corp.supernews.com>
Source record: 71183

David G. Nagel wrote:
>>
> What I was taught is that in a properly installed antenna system the
> coax will not radiate. If the antenna is not properly matched to the
> coax you get current flow along the outside of the coax shield.
>
> Dave WD9BDZ

It's too bad people are being taught this. As a number of others have correctly said, impedance match has nothing to do with whether or not a coax (or symmetrical twinlead line) radiates. Radiation is due to other, unrelated causes.

Roy Lewallen, W7EL

4922. Re: Amplifier Opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:24:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hcf15p65hrhae@corp.supernews.com>
Source record: 71184

Just don't make the common mistake of thinking that the units on your receiver's S meter are 6 dB. That can lead to some extremely mistaken conclusions.

Hams keep insisting that an "S-unit" is 6 dB, while the marks on typical S-meters almost never are, and sometimes are much different (< 2 dB for example).

Roy Lewallen, W7EL

Caveat Lector wrote:
>
> Agree and disagree
>
> For example, let's start with a 100-Watt exciter then add an afterburner of
> 800 Watts. Doubling power is 3 dB and an S-unit is 6dB. So from 100W to 200W
> is 3dB, 200W to 400W is 3 more dB, and 400W to 800W is 3 more dB for a total
> of 9 dB or only 1-1/2 S-Units possible increase on the receiving end. One
> can achieve almost the same result with a 3-element beam.
>
> BUT Although one and a half S-Units does give a little more oomph while
> working a pileup, it really comes into play for weak signal work where if it
> gets you just up out of the noise on the receiving end, two way QSO's may be
> possible where without the linear, the DX just can't copy. I can attest to
> this many times on any band.
>
>
>
> On the other hand I have worked DXCC - QRP - 5 Watts
>
>
>
> A lot depends on propagation (of course)
>

4923. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:27:45 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <a8mdnUC6P4yaoIveRVn-3Q@comcast.com>
Source record: 71185

David G. Nagel wrote:

SNIPPED
>>
> What I was taught is that in a properly installed antenna system the
> coax will not radiate. If the antenna is not properly matched to the
> coax you get current flow along the outside of the coax shield.
>
> Dave WD9BDZ

A balanced antenna fed with balanced line, and the line goes away from the antenna perpendicular [90 degrees angle] for a minimum of 1/4 wavelength is a properly installed antenna system: [line has minimum or no radiation]

A balanced antenna fed with balanced line, and the line goes away from the antenna non-perpendicular [other than 90 degrees angle] for a minimum of 1/4 wavelength is an improperly installed antenna system: [line will radiate]

A balanced antenna fed with un-balanced line, and the line goes away from the antenna perpendicular [90 degrees angle] for a minimum of 1/4 wavelength is an improperly installed antenna system: [line will radiate]

A balanced antenna fed with un-balanced line, and the line goes away from the antenna non-perpendicular [other than 90 degrees angle] for a minimum of 1/4 wavelength is an improperly installed antenna system: [line will radiate]

A balanced antenna fed with un-balanced line and a properly installed balun, and the line goes away from the antenna perpendicular [90 degrees angle] for a minimum of 1/4 wavelength is a properly installed antenna system: [line has minimum or no radiation].

An un-balanced antenna fed with balanced line is an improperly installed antenna and the line will radiate.

NEED I CONTINUE??

4924. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:29:20 UTC
From: nm5k@wt.net
Message-ID: <1125530960.254915.105940@g47g2000cwa.googlegroups.com>
Source record: 71186
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

I've been hearing calls for help from people stuck in attics
being routed through HF. Also , the usual H&W... So far,
the local people that have tried to go over there, and been
told, *Stay Away*!!!. They have plenty of local people from other
parts of the state, and New Orleans can't support any help
that does arrive. They have no way to keep them, feed them,
etc...So until they are ready, they are telling most to hang back.
I've been getting a good signal on WWL 870 in the daytime
using my big indoor loop.
Lotsa caller in, and things fairly normal on the air, cept, they
say they are running out of power, and no A/C, etc in the studios.
They are using all available power just for the transmitters.
Only station in town that is still going so far.
MK

4925. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:34:31 UTC
From: nm5k@wt.net
Message-ID: <1125531270.935221.22570@f14g2000cwb.googlegroups.com>
Source record: 71187
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

I've been getting a good signal on WWL 870 in the daytime
using my big indoor loop. ....

Dang, I just checked it now, and it *seems* to be off the air...
Hope it's just propagation.... Hope they didn't finally lose
power... It is 6.30 PM, so it's possible I just lost them due
to the propagation...I get them much better in the day, than
night. I hear a station on freq, but don't know if it's them or not.
MK

4926. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:40:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hcg03g584vv7f@corp.supernews.com>
Source record: 71188

Here's another posting referring to 6 dB "S-units". Have you actually measured how many dB between marks on your receiver's S meter? I have. Here's what they are, on my Icom IC-730, 40 meters, preamp off:

S1-S2: 1.4 dB
S2-S3: 1.3 dB
S3-S4: 1.6 dB
S4-S5: 2.3 dB
S5-S6: 1.8 dB
S6-S7: 3.2 dB
S7-S8: 3.1 dB
S8-S9: 4.0 dB
S9 - S9+10 dB: 5.6 dB
S9+10 - S9+20: 7.3 dB
S9+20 - S9+30: 6.6 dB
S9+30 - S9+40: 10.5 dB
S9+40 - S9+50: 11.3 dB
S9+50 - S9+60: 13.5 dB

So if I put up an antenna with 7 dB gain over a dipole (about par for a 3 element Yagi), it would kick my S meter from S2 to S6 when switching from the dipole to the Yagi. If I assumed my "S units" were 6 dB, I'd conclude my antenna had 24 dB gain. I'd be mistaken by a factor of 50 -- that is, I'd think my antenna had the gain of an array of about 50 Yagis.

I don't understand why we need a 6 dB unit which doesn't bear any fixed relationship to the marks on an S meter. Why not just use dB? Most hams can't measure 6 dB "S units" any better than they can measure dB.

I've got it. When somebody asks for a signal comparison and it's a 7 dB difference, I'll just tell him "My S meter went from S2 to S6, which is a difference of 1.2 S units." Everyone should understand that, right?

Roy Lewallen, W7EL

Ham op wrote:
> 7.78 Db BETTER [+1 1/4 S unit] than 100 watts.
>
> Upgrade the vertical to a beam and the net gain can be as high as +19.78
> dB [3+ S units] on the path:
> 1] + 6 dB in receive
> 2] + 6 dB in transmit
> 3] + 7.78 dB for the amplifier.
>
> For $1400, a beam has a much better return on investment than an
> amplifier by itself.

>
> The #1 rule I teach new or aspiring hams is "Your station efficiency,
> and your enjoyment, is directly proportional to your antenna."
>
>
>
> Dave wrote:
>
>> How does the ALS600 do when using with the Butternut HF9V vertical?
>>
>>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:FoadnZHij9SOC4jeRVn-pg@comcast.com...
>>
>>> Dave wrote:
>>>
>>>> I am thinking of buying the Ameritron 600 watt solid state amp and was
>>>> wondering what opinions you all may have of it. Thanks
>>>>
>>>>
>>>
>>> How many $per watt for the Ameritron 600? Ameritron lists the ALS-600 at
>>> $1299. For base station usage you need the power supply. Total package
>>> list price of $1428. Or, $2.38 per watt [SSB]. [600 watt]
>>>
>>> The AL-811H lists for $799 or $1.00 per watt [SSB]. [800 watt]
>>>
>>> The AL-80B lists for $1349 or $1.39 per watt [SSB]. [1000 watt]
>>>
>>> The AL-1500 lists for $3045 or $2.03 per watt [SSB]. [1500 watt]
>>>
>>> If you are considering base usage the AL-811H is less than 1/2 S unit
>>> below the AL-1500 at about 1/2 the price.
>>>
>>> The ALS-600 is only 1 1/4 S units above a 100 watt base or mobile
>>> station.
>>>
>>> I own the AL-80B. It has about 1/4 S unit below the AL-1500. [SSB]
>>>
>>> Save some money and put it to good use on your antenna system.
>>>
>>>
>>
>>
>>
>

4927. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:49:00 UTC
From: ml <m@di.net>
Message-ID: <m-9D15DD.19491331082005@news.verizon.net>
Source record: 71189

In article <43151589_3@news1.prserv.net>,
"Crazy George" <munsch@atglobal.net> wrote:

> There is one additional step which seems, from many anecdotal references, to
> provide further help. Somewhere along the
> cable route, run the coax through at least two sections of steel electrical
> conduit. Size immaterial, and grounding
> optional. And they need not be connected together. Theories about why this
> works run from it forms a lossy coax for
> the lightning induced wave on the outside, to impedance mismatch on the
> outside to eddy current losses in the steel.
> Whatever the mechanism, I know of several locations where it seems to have
> reduced the damage from continuing lightning
> strikes. And it is certainly cheap enough to include.
>
> --
> Crazy George
> The attglobal.net address is a SPAM trap. Please change that part to:
> att<dot>biz properly formatted.
>
> <wizard12342002@yahoo.com> wrote in message
> news:1125443164.355999.136830@g47g2000cwa.googlegroups.com...
> > Suppose I have an antenna some distance from the house. I run the
> > transmission line down from the antenna, bury the line, run it
> > underground to the house, place a lightning arrestor and ground just
> > outside the house, then run the transmission line up the side of the
> > house to the operating position on the second floor. Does anyone see a
> > problem with this arrangement? I can't imagine that a lightning would
> > "want" to travel back up toward the operating position when it has a
> > good ground (at the arrestor) closer to the antenna.
> >
> > -JJ
> >

i wonder if anyone did any actual research on adding some pipe
sections?? wonder if that would woork?

i'd also recomend some good lightning surperssors such as those made
by ice they seem about the best

4928. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:59:18 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <qvrRe.5$ou5.7672@twister.southeast.rr.com>
Source record: 71190
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Check the ARRL website. No one is going in, but plans are being made for access when possible.

Bill, W4WNT

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
>I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>
>
> --
>
>
>

4929. There are 3 coaxial conductors.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-08-31 23:59:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df5g9m$l41$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71191

Dear all,

For coaxial cable, at HF, where skin depth is less than the physical outer conductor thickness, there are 3 conductors.

Conductor (1) = Outer surface of inner conductor.

Conductor (2) = Inside surface of outer conductor.

Conductor (3) = Outer surface of outer conductor.

The return path for (3) is the remainder of the universe. It behaves as a single conductor transmission line which has calculable Zo and attenuation. (To keep Lord Kelvin happy). When current flows on it, it also has a radiation resistance.

The currents in (1) and (2) are always equal and opposite in direction to each other. They are mutually coupled to each other by line inductance and capacitance.

The current on (3) is always independent of what flows in (1) and (2) because no mutual coupling exists between them. However, external coupling can occur and be deliberately or accidently induced at the ends of the cable.

Any current which finds its way on to (3), which ought to flow in the antenna, will result in the coax participating in the radiation pattern of the whole antenna structure.

BUT IT IS A SILLY QUESTION TO ASK HOW MANY WATTS ARE RADIATED FROM THE FEEDLINE.

OR, CONVERSELY, HOW MANY MICROWATTS ARE PICKED UP BY THE FEEDLINE ON RECEIVE.

The feedline cannot be treated in isolation as if it behaves independently of the antenna. For starters, the radiation resistances of the feedline and antenna do not add arithmetically. They interact with each other.

In summary, in your own language, the watts radiated from the coaxial feedline to a resonant 1/2-wave dipole, without a choke balun, can be forgotten about. There may even be a small advantage. Nothing is wasted where there are pigs.

Reg, G4FGQ